

BURLINGTON, VERMONT  
PROJECT MEGC-M5000(1)

SOUTHERN CONNECTOR/CHAMPLAIN PARKWAY PROJECT  
CHITTENDEN COUNTY, VERMONT

LIMITED SCOPE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

Submitted Pursuant to

42 U.S.C. 4332(2)(c), 23 U.S.C. 128 (a),  
and 49 U.S.C. 303

By the:

UNITED STATES DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

and

VERMONT AGENCY OF TRANSPORTATION

and

CITY OF BURLINGTON DEPARTMENT OF PUBLIC WORKS

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For Federal Highway Administration

July 2, 2020

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Date of Approval

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For Vermont Agency of Transportation

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This 2020 Limited Scope Draft Supplemental Environmental Impact Statement (LS DSEIS) focuses on environmental justice considerations of the previously approved Burlington Southern Connector/Champlain Parkway project (Project). The approved Project involves the construction of approximately 2.3 miles of highway known as the Southern Connector/Champlain Parkway, commencing at the interchange of I-189 with Shelburne Street (U.S. Route 7), and extending westerly and northerly to the City Center District (CCD) within the City of Burlington, Chittenden County, Vermont.

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**LIMITED SCOPE DRAFT SUPPLEMENTAL  
ENVIRONMENTAL IMPACT STATEMENT  
BURLINGTON, VERMONT MEGC-M5000 (1)**

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**June 2020**

UNITED STATES DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

STATE OF VERMONT  
AGENCY OF TRANSPORTATION

CITY OF BURLINGTON  
DEPARTMENT OF PUBLIC WORKS

# EXECUTIVE SUMMARY

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## Purpose of LS DSEIS

On January 27, 2020, the Federal Highway Administration (FHWA) issued a Notice of Intent (NOI) to advise the public that a Limited Scope Draft Supplemental Environmental Impact Statement (LS DSEIS) will be prepared for the proposed Southern Connector/Champlain Parkway (Project) in the City of Burlington (City), Chittenden County, Vermont.

The FHWA, in cooperation with the Vermont Agency of Transportation (VTrans) and the City, has prepared this LS DSEIS for the Project between Interstate 189 and Main Street in Burlington, Vermont. The project's Record of Decision (ROD) was rescinded on October 11, 2019 to "perform targeted outreach to any minority and low-income populations in the project study area in order to determine whether the conclusions reached in the 2009 Final SEIS and 2010 ROD remain valid."

This LS DSEIS is limited in the scope of issues, and only assesses impacts to low-income and minority populations. Based on the Executive Order (EO) 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, and FHWA's *Guidance on Environmental Justice and NEPA*, it is FHWA's policy to identify and address any disproportionately high and adverse effects of FHWA actions on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. This LS DSEIS addresses a limited portion of the project along the Pine Street section of the Selected Alternative, between Maple Street and Main Street, which received targeted outreach to the minority populations. During the LS DSEIS review of the Selected Alternative, minority populations were also identified adjacent to Pine Street between Kilburn Street and Flynn Avenue. It has been determined the project will have minimal effects to this community. There will be additional outreach to this community once the LS DSEIS is released.

## Project Description

The Project remains divided into three construction contracts referred to as the C-1 Section, the C-2 Section, and the C-6 Section. The description and limits for the C-1 Section and C-2 Section are unchanged from the 2009 FSEIS and Selected Alternative in the 2010 Record of Decision (ROD). The C-6 Section is also unchanged from the description provided in the 2009 FSEIS. As described in the 2009 FSEIS, C-6 Section will utilize Lakeside Avenue and Pine Street to connect C-2 Section of the Project to the Burlington CCD at the intersection of Pine Street and Main Street. The Maple and King Street Neighborhood is at the northern end of the project on Pine Street extending from Maple Street to Main Street (approximately 800 feet). An overview of the Project corridor is shown in Figure ES-1.



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**LEGEND**

- SIDEWALK
- SHARED USE PATH
- PROPOSED ROADWAY
- MAPLE AND KING STREET NEIGHBORHOOD



**Southern Connector/Champlain Parkway MEGC-M5000(1)**



**FIGURE ES-1**  
**PROJECT CORRIDOR**  
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The proposed improvements to Pine Street within the Maple and King Street Neighborhood consist of cold planing and resurfacing the existing pavement; the installation of traffic signals at the Maple and King Street intersections with Pine Street; providing drainage improvements, installing new curbing, curb extensions; new concrete sidewalks with new ADA-complaint sidewalk access ramps and detectable warning surfaces at the crosswalk locations.

## **Project Need**

The existing problems and deficiencies that were identified in the 2009 FSEIS have not changed and are still considered valid. In summary, the Project needs defined in the 2009 FSEIS are:

1. Congestion (including insufficient capacity to appropriately service traffic volumes and provide appropriate access);
2. Safety concerns created by vehicles utilizing roadways that functionally operate at a higher classification than intended, both along the minor arterials and in neighborhood areas which are acting as short-cuts; and
3. Mix of local and through-traffic in neighborhood areas (including truck traffic) created by a lack of a north/south arterial to access the CCD.

## **Project Purpose**

The purpose of the Project is unchanged from the Project purpose stated in the 2009 FSEIS:

The purpose of the Project is to improve access from the vicinity of the interchange of I-189 and U.S. Route 7 to the Burlington CCD and the downtown waterfront area and to improve circulation, alleviate capacity overburdens, improve safety on local streets in the project study area and provide traffic relief in the southwestern quadrant of the City of Burlington. The purpose of the project is also to eliminate the disruption to local neighborhoods and separate local and through-traffic. Truck traffic that is destined for the CCD or the industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Champlain Parkway and removed from the local street network. The proposed transportation corridor is expected to become the major routing for north-south through-traffic in the area. The reassignment of the majority of through-traffic to this route would reduce traffic volume levels along neighborhood streets and improve accessibility to adjacent neighborhood areas.

## **Project History**

The Project has a long history with National Environmental Policy Act (NEPA) reviews dating back to the 1970s. The most recent NEPA document for the project was a Final Supplemental EIS approved by FHWA on September 22, 2009 and a Record of Decision (ROD) issued on January 13, 2010 identifying the Selected Alternative and the reasons for its selection.

On October 11, 2019, FHWA published a notice to rescind the 2010 ROD in order to re-evaluate the project's impacts to minority and low-income populations in accordance with 23 CFR 771.129. This decision reads, in part, "The FHWA, in conjunction with VTrans, has determined that the ROD shall be rescinded for the following reason: Although the 2005 Draft SEIS and the 2009 Final SEIS each considered disproportionately high and adverse impacts on minority and low-income populations in accordance with Executive Order 12898, public outreach for that analysis was limited to the general public involvement associated with the NEPA process. FHWA and VTrans have decided to perform targeted public outreach to any minority and low-income populations in the project study area in order to determine whether the conclusions reached in the 2009 FSEIS and 2010 ROD remain valid. FHWA and VTrans have also determined that the environmental justice analysis and conclusions in the NEPA review should be reassessed using the latest (2014-2018 5-year estimates) American Community Survey data and based on FHWA's December 16, 2011 Guidance on Environmental Justice and NEPA." Based on the environmental reevaluation, FHWA determined that a LS DSEIS should be prepared for the project to address the FHWA guidance and methodology for performing Environmental Justice (EJ) analysis subsequent to the 2009 FSEIS, incorporate updated demographic information contained in the latest available census data, and to provide additional opportunities for meaningful public involvement.

## **Regulatory Background**

FHWA has required preparation of this LS DSEIS under NEPA implementation regulations in accordance with 23 CFR §771.130(e) that state "In some cases, an Environmental Assessment (EA) or supplemental EIS may be required to address issues of limited scope, such as the extent of proposed mitigation or the evaluation of location or design variations for a limited portion of the overall project."

## **Environmental Justice**

The EJ Analysis included in this document follows the procedures recommended in the FHWA Guidance memorandum as listed below and summarized in Chapter 4.

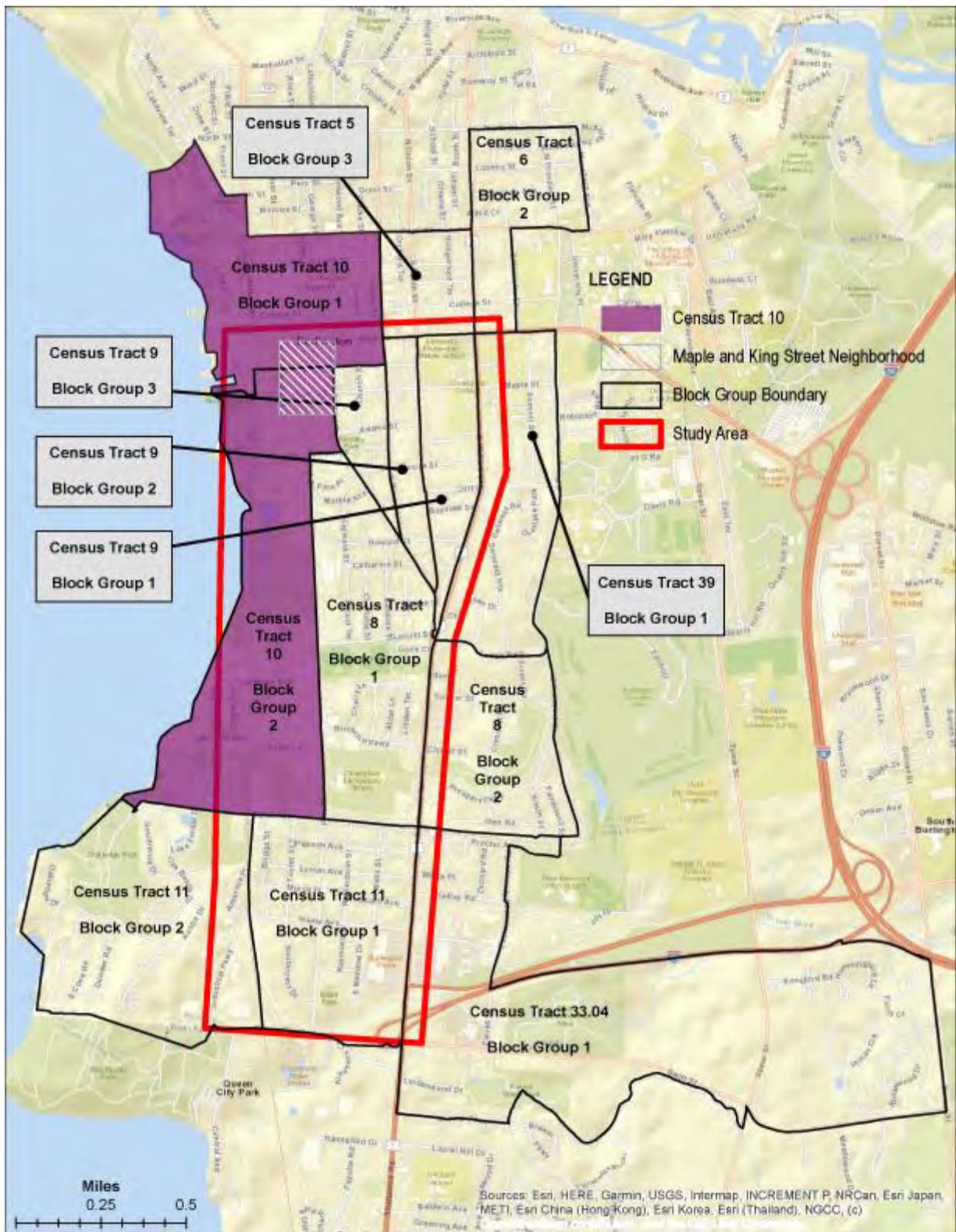
- EO 12898 – *Federal Actions to Address Environmental Justice in Minority Populations*
- FHWA Order 6640.23A – FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations dated June 14, 2012
- FHWA Guidance on Environmental Justice and NEPA dated December 16, 2011

As described in Chapter 4, an EJ screening was completed within the Project study area. Although it was determined that none of the study area census tracts meet the criteria for low-income populations, Census Tract 10 was identified as a minority population given the higher percentage of minority residents than the City or county. The residential portion of this census tract that is within the Project study area comprises much of the Maple and King Street Neighborhood.

The percentage of minority residents in Census Tract 10 was originally identified in the 2013-2017 5-Year American Community Survey estimates. These estimates provided Census Tract level data only. Based on this information, coupled with intimate knowledge of the city demographics, the Maple and King Street neighborhood was identified as a community higher in minority composition over any another area within the project area. This community possessed 21% minority totals compared to that of the city average of 17%. While completing the project analysis, new 2018 American Community Survey data was released which added new granularity and Block Group detail data. This new data cut the Maple and King community in half by showing the King Street demographics in Census Tract 10 Block Group 1 and Maple Street demographics in Census Tract 10 Block Group 2. Considering the combination of recent census data, local knowledge, and the results of the outreach and engagement effort, it has been determined that the Maple and King Street Neighborhood consists of a minority population that will require an EJ analysis for this project.

The Maple and King Street Neighborhood is highlighted in a hatched box within Census Tract 10 in Figure ES-2.

Figure ES-2:



## **Project Impact**

The Selected Alternative will be located within the current Pine Street right-of-way in the Maple and King Street Neighborhood, although temporary right-of-way access will be necessary to complete construction of sidewalks and other project amenities.

While the Project is expected to have limited footprint and construction impacts in the Maple and King Street Neighborhood, the Project will increase traffic volumes by approximately 1,400 vehicles per day (vpd) (approximately 9%) on Pine Street north of Lakeside Avenue, including in the Maple and King Street Neighborhood, when compared with the No-Build condition. The increased traffic within the Maple and King Street Neighborhood was evaluated for adverse effects through an environmental justice analysis. It was determined, through this analysis, that the installed coordinated traffic signals will improve traffic operations and decrease congestion on Pine Street in the Maple and King Street Neighborhood. It was further determined that these upgrades will lead to smoother traffic flow, improved intersection operation, and decreased delay. They are expected to address any adverse effects resulting from the increase in traffic volumes.

Overall effects to the transportation system, including a discussion of traffic volumes, operations, and safety are discussed and fully described in Chapter 7 and in Appendix 2 of this document.

To minimize project impacts within the Maple and King Street Neighborhood, Pine Street will not be widened. Instead, all improvements will occur within the existing right-of-way, except temporary easements necessary to complete the work. The Project will improve traffic operations compared to the No-Build condition and will address increased traffic flow and overall intersection operations. The installation of traffic signals at the Maple and King Street intersections with Pine Street will be coordinated with an upgraded signal at Main Street and Pine Street, resulting in smoother traffic flow, improved intersection operations, and decreased delay.

The new and upgraded signals will include pedestrian phases with countdown timers to provide safer crossing opportunities for pedestrians, which include WALK signals in an exclusive phase where all vehicles are stopped. This operational improvement will improve intersection safety for pedestrians utilizing these intersections and overall traffic flow for motorists. Curb extensions and crosswalks will be constructed at these three intersections as part of the Project and will further improve pedestrian safety by increasing visibility and reducing the crossing distance. These Project improvements will be particularly beneficial to pedestrians traveling in groups with children, the elderly, and the disabled. Mobility and access for pedestrians and bicyclists will be improved by providing new continuous ADA-compliant sidewalk along the eastern side of Pine Street, and a reconstructed ADA compliant sidewalk along the western side of Pine Street. These new accommodations will improve pedestrian accessibility and safety compared to the No-Build condition and will mitigate the negative effect of the Project's traffic increases.

These new and reconstructed sidewalks, combined with a new shared-use path to the south and enhanced on-road bicycle treatments, will expand the network and quality of facilities available to pedestrians and bicyclists having origins/destinations within the Maple and King Street Neighborhood and the City at large. These new facilities will better accommodate pedestrian and bicyclist safety and movement, ADA compliance/accessibility and on-street parking in and around the community.

Construction of the Project in the Maple and King Street Neighborhood will involve temporary impacts to normal traffic, pedestrian, and bicycle patterns due to paving and temporary sidewalk closures with detours to construct the new curbing, sidewalk, and traffic signal equipment. Concerns and comments regarding construction and work zone impacts were raised from members of the Maple and King Street Neighborhood during the public outreach events. These concerns were noted and will be mitigated to the greatest extent possible during the construction phase for the project.

As illustrated in Table ES-1 and in the body of the LS DEIS, identified neighborhoods within the Study Area will share both the project's improvements and some adverse impacts. After additional review of the proposed improvements and public involvement engagement, the Project will not cause disproportionately high and adverse effects on any minority populations in the Maple and King Street Neighborhood in accordance with the provisions of EO 12898 and FHWA Order 6640.23A.

## **Project Mitigation**

To mitigate the negative effects of the project, a number of mitigation measures are proposed:

### *Construction Impacts*

To the extent feasible, appropriate measures have been incorporated into the Project's construction and planning documents to address construction impact concerns.

### *Work Zone Safety and Mobility*

The Project will include provisions that provide safe passage for pedestrians, bicyclists, and motorized vehicles during and after construction work hours while minimizing impact in the Maple and King Street Neighborhood during construction work hours. Construction phasing and scheduling will ensure safe pedestrian access through the construction area and to adjacent properties, buildings, residences, commercial properties and transit stops.

Regular and timely coordination between the contractor, emergency response personnel, Green Mountain Transit, and school bus route operators shall ensure the continuity of these vital services.

Pedestrians may be directed around isolated work areas. The contractor is required to prepare a temporary pedestrian and bicyclist traffic control plan in advance of the plan

being implemented to detail construction phasing and schedule as well as the specific methods of maintaining safe pedestrian and bicyclist access throughout the work zone.

Other efforts that will mitigate temporary neighborhood impacts include the following:

- Time-of-day restrictions on the contractor's activities,
- Changeable message boards with timely and meaningful messages consistent with the current construction activities,
- Maintaining bicycle travel paths to be free of ruts, sand, mud and other debris.
- Providing pedestrian, bicycle, and traffic detours as necessary and ensuring that the site is not left inaccessible at night.
- Installing temporary pedestrian ramps as necessary.
- The Project will also be constructed in accordance with the City's noise ordinances which will place limitations on contractor's disruptive construction operations. Fugitive dust will be minimized by imposing requirements such as pick-up broom sweepers and watering down dust piles and/or tarping piles at night as well as other dust control measures.

#### *Public Involvement Plan*

In addition to work zone safety and mobility provisions, a Public Involvement Plan (PIP) has been developed by the City, the Champlain Parkway Municipal Project Manager (MPM), the Federal Highway Administration (FHWA), and a dedicated Project Information Manager (PIM). This PIP will utilize communication strategies that seek to inform the general public and the EJ community of work zone impacts and the Project's changing conditions. The public information team will also conduct outreach to residents and businesses adjacent to construction activities. This outreach will include door-to-door outreach, posting informational flyers in local businesses, organizations, and other public places, stakeholder interviews, calls, and visits. A database of key constituents and stakeholders will be developed to share project information and updates throughout the construction of the Project. This list will include businesses and residents in the Maple and King Street Neighborhood. Informational outreach will include updates to provide advance warning of construction impacts such as traffic pattern changes or other disruptive activities and to identify community specific-issues or concerns before construction activities begin.

Print materials for education and outreach, such as project factsheets, door hangers, brochures, and flyers, will be produced as part of the PIP. These materials will be available in multiple languages. The target languages have been verified with city personnel as part of the ongoing EJ community public involvement effort. These materials will be posted in community locations, including in public buildings and businesses, throughout the Project Area and will be distributed to each residence. In addition to project-specific materials and meetings, press releases, other media alerts, and the City's social media platforms are anticipated to be used to inform the community about construction activities.

A project hotline and email address for the public to submit questions and comments will be established and weekly project email updates will be sent to the stakeholder distribution list.

The Parkway's website ([www.champlainparkway.com](http://www.champlainparkway.com)) will be used to provide information about construction progress and upcoming construction activities, including the overall construction schedule and the anticipated schedule of key construction activities. The website will be redesigned to be updated daily and will include an interactive project map to provide a closer look at the phased construction work and ongoing progress. The City's municipal website will include links to the Parkway's website ([www.champlainparkway.com](http://www.champlainparkway.com)) to facilitate access to project updates.

**Table ES-1: Summary of Project Impacts by Neighborhood**

Affected Environment*	Neighborhoods							
	Maple and King Street	Calahan (South) Park	Birchcliff Parkway	Lakeside	Flynn Avenue/ Home Avenue	South Meadows	Oakledge	Austin Drive
<b>Land Use and Socioeconomics</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Traffic Volumes</b>	<b>Negative</b>	<b>Negative</b>	Positive	<b>Negative</b>	Positive	Positive	Neutral / None	Neutral / None
<b>Mobility</b> <i>(Traffic Operations and Bicycle and Pedestrian Access)</i>	Positive	Neutral / None	Positive	Neutral / None	Positive	<b>Negative</b>	Neutral / None	Neutral / None
<b>Traffic Safety</b>	Positive	Positive	Positive	Neutral / None	Positive	Positive	Neutral / None	Neutral / None
<b>Air Quality</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Noise Environment</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Historic and Archaeological Resources</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Construction Impacts</b>	<b>Negative</b>	<b>Negative</b>	Neutral / None	<b>Negative</b>	<b>Negative</b>	<b>Negative</b>	Neutral / None	Neutral / None

\* Mitigation Measures have been incorporated into this matrix.

## **Design Treatments**

For the Selected Alternative, design treatments have been incorporated to mitigate the adverse effects of the changes in traffic volumes and patterns, which include traffic calming features, improved pedestrian and bicycle accommodations, and streetscape features. Consistent ADA-compliant sidewalks will be used to replace current sidewalks on Pine Street, within the study area, that are inconsistent, narrow, and in bad repair. Traffic calming measures will be included to alert drivers to pedestrians along Pine Street, and improve pedestrian and bicycle safety throughout the project, including the Maple and King Street Neighborhood.

The design for Pine Street, within the Maple and King Street Neighborhood, will not require widening. Traffic volumes on Pine Street in the Maple and King Street Neighborhood will increase, when compared with the No-Build alternative. However, the installation of traffic signals at the Maple and King Street intersections with Pine Street will be coordinated with the existing signals at Main Street and Pine Street, resulting in smoother traffic flow, improved intersection operation, and decreased delay. Additionally, the proposed design for Pine Street within the Maple and King Street Neighborhood includes cold planing and resurfacing the existing roadway, drainage improvements, consistent ADA-compliant sidewalks, and new curbing. The roadway layout will feature a two-foot shoulder and 11-foot shared lane in the southbound direction. The northbound direction will consist of an 11-foot shared lane, a four-foot painted parking lane buffer, and a seven-foot parking lane. These improvements will mitigate the increased traffic volume on Pine Street in the Maple and King Street Neighborhood.

The new traffic and pedestrian signals will provide safer crossing for pedestrians using walk signals in an exclusive phase where all vehicles are stopped. Providing an exclusive pedestrian phase improves vehicular traffic flow because pedestrians know to wait for a cross signal instead of causing traffic to stop each time a pedestrian arrives at the crosswalk. Curb extensions and high-visibility crosswalks will also improve pedestrian safety.

The project will also improve mobility for pedestrians and bicyclists by providing a new, continuous ADA-compliant sidewalk and ramps along both sides of Pine Street. This new and reconstructed sidewalk, combined with a new shared-use path to the south and enhanced on-road bicycle treatments, will expand the network and quality of facilities available to pedestrians and bicyclists having origins/destinations within the Maple and King Street Neighborhood and the City at large.

## **Determination of Disproportionately High and Adverse Effect**

Based on this review, it has been determined that once project upgrades have been implemented and potential adverse impacts are mitigated, there will be no disproportionately high and adverse effects on any minority and/or low-income populations in accordance with the provisions of EO 12898 and FHWA Order 6640.23A.

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## ACRONYMS

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AASHTO	American Association of State Highway and Transportation Officials
ACS	American Community Survey
ADA	American Disabilities Act
ANR	Vermont Agency of Natural Resources
AWSC	All-Way Stop Control
planBTV	City's Municipal Development Plan
CBD	Central Business District
CCD	City Center District
CCMPO	Chittenden County Metropolitan Planning Organization
CEQ	White House Council on Environmental Quality
CFR	Code of Federal Regulations
City	City of Burlington
CUD	Vermont Conditional Use Determination
CWA	Clean Water Act
DEC	Vermont Department of Environmental Conservation
DEIS	Draft Environmental Impact Statement
DPW	Burlington Department of Public Works
DSEIS	Draft Supplemental Environmental Impact Statement
EA	Environmental Assessment
EJ	Environmental Justice
EO	Executive Order
EPA	United States Environmental Protection Agency
ETC	Estimated Time of Completion
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FSEIS	Final Supplemental Environmental Impact Statement
FTA	Federal Transit Administration
HCL	High Crash Locations
HCM	Highway Capacity Manual
HHS	Health and Human Services
HOV	High Occupancy Vehicles
HUD	U.S. Department of Housing and Urban Development
LOS	Level of Service
LS DSEIS	Limited Scope Draft Supplemental Environmental Impact Statement
MPH	Miles Per Hour
MPM	Municipal Project Manager
MTP	Metropolitan Transportation Plan
MUTCD	Manual on Uniform Traffic Control Devices
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System

OSPP	Open Space Protection Plan
PEL	Planning and Environmental Linkages
PIM	Public Information Manager
PIP	Public Involvement Plan
Project	Southern Connector/Champlain Parkway project
PSBC	Pine Street Barge Canal Superfund Site
REP	Railyard Enterprise Project
ROD	Record of Decision
RRFBs	Rectangular Rapid Flashing Begins
RSG	Resource Systems Group, Inc.
SEIS	Supplemental Environmental Impact Statement
STIP	Statewide Transportation Improvement Program
TIP	Transportation Improvement Program
USDOT	United States Department of Transportation
VPD	Vehicles Per Day
VTR	Vermont Railway, Inc.
VTrans	Vermont Agency of Transportation
WQC	Vermont Water Quality Certification

# 1. PURPOSE OF LS DSEIS

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## 1.1 Introduction

This document has been prepared to comply with the National Environmental Policy Act (NEPA). The Southern Connector/Champlain Parkway project (Project) is a proposed transportation link located in the southwestern quadrant of the City of Burlington, Chittenden County, Vermont providing access between I-189, Shelburne Street and the City Center District (CCD), formerly known as the Central Business District (CBD). A project location map showing the area is provided in Figure 1-1. In 2009, a Final Supplemental Environmental Impact Statement (FSEIS) approved the Selected Alternative consisting of a roadway that utilizes both new alignment and existing City streets from I-189 to the CCD. A Record of Decision (ROD) was issued in January 2010.

On October 11, 2019, the FHWA, in cooperation with the Vermont Agency of Transportation (VTrans), rescinded the ROD for the Project. Although the 2005 Draft SEIS and the 2009 Final SEIS each considered disproportionately high and adverse impacts on minority and low-income populations in accordance with Executive Order (EO) 12898, public outreach for that analysis addressed the general public involvement associated with the NEPA process more than the targeted approach recommended for EJ communities.

This Limited Scope Draft Supplemental Environmental Impact Statement (LS DSEIS) is being prepared to perform an environmental justice analysis for the Maple Street and King Street Neighborhood and determine whether the conclusions reached in the 2009 FSEIS remain valid. FHWA and VTrans also determined that the environmental justice analysis and conclusions in the NEPA review should be reevaluated using the most recent census data. This Reevaluation concluded that a LS DSEIS is warranted because a new standard of practice related to Environmental Justice (EJ) analysis exists today that wasn't applicable at the time the 2009 FSEIS.

All other project design elements and resulting environmental resource impacts summarized in the 2009 FSEIS were reassessed in the May 2017 Reevaluation associated with the two post 2009 FSEIS rail crossings and January 2020 Reevaluation.



## 1.2 Statement of the Project Need

The statement of Project Need as provided in the 2009 FSEIS has not changed. The Statement of Project Need as stated in the 2009 FSEIS is:

*“The City of Burlington extends for approximately seven miles along the eastern shore of Lake Champlain in Chittenden County, Vermont. As the city has grown from its late 18<sup>th</sup> century beginnings, the transportation infrastructure has not kept pace with development, resulting in a number of highway deficiencies. One of the most distinct deficiencies has been the evolution of a city-wide street pattern with few north/south travel routes that are continuous.*

*The deficiency is particularly pronounced in the southern end of the City, on streets that carry traffic between the U.S. Route 7 (Shelburne Street) interchange and I-189 and the CCD. The intersection of two Principal Arterial highways, I-189 and U.S. Route 7, is a focal point of traffic moving north and south, to and from downtown Burlington and points east.*

*Shelburne Street in the northerly extension of U.S. Route 7 into Burlington. As it proceeds to its north end at the intersection of St. Paul Street and South Union Street, Shelburne Street carries four lanes of traffic, plus turning lanes, for approximately two thirds of the distance between the I-189 interchange and the CCD. The traffic volumes on this section of Shelburne Street are on the order of 24,000 vehicles per day (two-way) based on Chittenden County Metropolitan Planning Organization (CCMPO) 2002 traffic data. This section of Shelburne Street is also heavily developed with commercial properties, most of which have direct access onto U.S. Route 7; therefore, traffic wishing to proceed into the CCD or through the City is heavily congested.*

*Motorists wishing to avoid the traffic impediments on Shelburne Street often times divert from this primary thoroughfare onto the local street network in an attempt to bypass the congestion. For these reasons, the principal alternate routes into the CCD from the south are St. Paul Street, which extends from the north end of Shelburne Street; and Pine Street, which parallels St. Paul Street and Shelburne Street.*

*St. Paul Street and South Union Street are both two-lane residential streets which commence at the Y-intersection at the northern terminus of Shelburne Street. South Union Street is narrower than St. Paul Street, does not provide direct access to the CCD, and is restricted to one-way northbound traffic between King Street and Main Street. South Winooski Avenue, which diverges from St. Paul Street, is also a narrow, residential street, limited by one-way traffic restrictions. As a result, St. Paul Street*

*carries the majority of traffic between Shelburne Street and the CCD. However, St. Paul Street does not have adequate capacity for the traffic it is forced to carry.*

*Pine Street provides a continuous and direct route from the southern end of the City to the CCD. Beginning at its southern terminus with Queen City Park Road and continuing north to Flynn Avenue, Pine Street is a two-lane residential street. North of Flynn Avenue, Pine Street continues to be a two-lane roadway, but the character of the area changes. With the exception of the Jackson Terrace Apartments and the Champlain Elementary School, Pine Street is lined with commercial businesses and light industrial uses between Flynn Avenue and Kilburn Street. As Pine Street continues north to Main Street and the CCD, the area returns to a high-density residential neighborhood. Pine Street is highly desirable as an additional north-south route providing access between the CCD and points to the south.*

*However, Pine Street has no direct connection to the two Principal Arterials, I-189 and U.S. Route 7. Pine Street is only accessible by traffic migrating to and from Shelburne Street over local, residential streets which include Home Avenue, Lyman Avenue, Ferguson Avenue, Flynn Avenue, Birchcliff Parkway, Locust Street and Howard Street. These local streets are not intended to, nor do they have the capacity to carry the volume of traffic which is diverted from arterial or collector systems.*

*In addition, the existing street pattern encourages use of neighborhood streets by trucks due to the lack of alternative routings. This mix of traffic has created conflict and access concerns in the vicinity of the C-2 Section neighborhoods, and the King Street/Maple Street neighborhood, located at the north end of Pine Street. These conditions have caused congestion and resulted in safety and neighborhood concerns throughout the southwestern quadrant of the City of Burlington. The need for the Southern Connector/Champlain Parkway project was identified by studies conducted early in the history of the project, as discussed in Section 1.2 [of the 2009 FSEIS].*

*The need to improve traffic flow has neither abated nor has it been addressed in the 30 years since the 1979 FSEIS was approved. It is necessary that a facility be constructed to service the routing of traffic through or around the Pine Street Barge Canal Superfund Site, to provide relief of congestion and improve safety in the southwestern quadrant of Burlington.*

*In summary, the existing problems and deficiencies that have been identified are:*

1. *Congestion (including insufficient capacity to appropriately service traffic volumes and provide appropriate access);*
2. *Safety concerns created by vehicles utilizing roadways that functionally operate at a higher classification than intended, both along the minor arterials and in neighborhood areas which are acting as short-cuts; and*
3. *Mix of local and through-traffic in neighborhood areas (including truck traffic) created by a lack of a north/south arterial to access the CCD.”*

### **1.3 Project Purpose**

The Project purpose as stated in the 2009 FSEIS remains valid. The purpose of the Southern Connector/Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and U.S. Route 7 to the Burlington CCD and the downtown waterfront area; and to improve circulation, alleviate capacity overburdens, improve safety on local streets in the Project study area and provide traffic relief in the southwestern quadrant of the City of Burlington.

The purpose of the Project is also to eliminate the disruption to local neighborhoods and separate the local and through-traffic. Truck traffic that is destined for the CCD or the industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector/Champlain Parkway and removed from the local street network. The proposed transportation corridor is expected to become the major routing for north-south through-traffic in the area. The reassignment of the majority of through-traffic to this route would reduce traffic volume levels along neighborhood streets and improve accessibility to adjacent neighborhood areas.

## **2. PROJECT DESCRIPTION AND HISTORY**

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### **2.1 Project Description**

A detailed description of the Project was provided in the 2009 FSEIS and subsequent Reevaluations. The project has been divided into three construction contracts, representing sections or portions of the entire Project. These sections are referred to as Section C-1, Section C-2, and Section C-6. The sections of the Project are described below:

#### **C-1 Section: I-189/Shelburne Street to Home Avenue**

This section consists of reconstruction of the I-189/Shelburne Street (U.S. Route 7) interchange, and construction of the Southern Connector/Champlain Parkway to approximately Home Avenue for a length of approximately 0.6 mile. This portion of the Project has been constructed as a four-lane facility, but never opened to traffic.

#### **C-2 Section: Home Avenue to Lakeside Avenue**

The section would commence at the northern terminus of the C-1 Section, near Home Avenue, and extend northerly for a length of approximately 0.7 mile, as far as Lakeside Avenue. A four-lane concept for this portion of the Project was previously designed, and the right-of-way acquisition limits that corresponded to that design have been acquired.

#### **C-6 Section: Lakeside Avenue to Main Street**

This section utilizes the existing city-street network at the terminus of the C-2 Section at Lakeside Avenue. The C-6 Section proceeds easterly along Lakeside Avenue to Pine Street. It then follows Pine Street to Main Street.

It should be noted that the project does not have a C-3 Section, C-4 Section or C-5 Section.

## 2.2 Summary of Project History

A detailed summary of the Project's history was provided in the 2009 FSEIS. Numerous studies for this project have been completed pursuant to NEPA as summarized in Table 2-1: Summary of NEPA Studies and Actions.

The Project is located in the City of Burlington, Vermont. The Project is a proposed transportation link located in the southwestern quadrant of the City of Burlington, Chittenden County, Vermont providing access between Interstate 189, U.S. Route 7 (Shelburne Street), and the CCD.

A ROD was issued on January 13, 2010 based on a 2009 FSEIS. The FSEIS included a Section 106 determination of No Adverse Effect and a de minimis use of Section 4(f) resources. Since the completion of the FSEIS there have been some minor revisions to the Project. A Section 106 Amendment/ No Adverse Effect was issued on April 6, 2017 and an additional Section 4(f) De Minimis Determination was issued on May 5, 2017. The Project is scheduled to be advertised for bids in 2020.

The 2010 ROD was rescinded on October 11, 2019 in order to reevaluate the EJ impacts of the Project. In accordance with 23 CFR 771.129(c) a reevaluation of the FSEIS was prepared for the Project. The analysis included in the Reevaluation was prepared in conformance with the EO 12898, FHWA Order 6640.23A effective June 14, 2012 (canceling FHWA Order 6640.23 FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations dated December 2, 1998) and the FHWA *Guidance memorandum on Environmental Justice and NEPA* dated December 16, 2011.

An EJ screening was completed within the Project study area. Although it was determined that none of the Project study area census tracts meet the criteria for low-income populations, Census Tract 10 was identified as a minority population given the substantially higher percentage of minority residents than the City or county. The residential portion of this census tract that is within the Project study area comprises much of the Maple and King Street Neighborhood.

The City, FHWA, and VTrans have assessed whether all the Project's environmental impacts were adequately considered and if any of the impacts may rise to the level of significance. Based on this assessment, it has been determined that all other environmental resource impacts summarized in the 2009 FSEIS have been reassessed in the May 2017 Reevaluation associated with the rail crossings and the May 2019 Reevaluation of the overall Parkway project and the conclusions included in each of those Reevaluations remain valid.

**Table 2-1: Summary of NEPA Studies and Actions**

Study		Date Issued	Purpose of Study	Action/Decision
•	Draft Environmental Impact Statement (DEIS)	1977	To document the need for and identify and assess the impacts of alternatives to improve north/south travel in the southwestern quarter of the City of Burlington.	Identification of a Preferred Alternative
•	Final Environmental Impact Statement (FEIS)	1979	To document the need for and identify and assess the impacts of alternatives to improve north/south travel in the southwestern quarter of the City of Burlington. Also, to address comments raised in the 1977 DEIS.	Selected Alternative chosen, resulting in an approved project
•	Draft Supplemental Environmental Impact Statement (DSEIS)	1984	To address the environmental impacts of constructing a portion of the Selected Alternative through a wetland contaminated by coal gasification wastes.	No action, no Final Supplemental Environmental Impact Statement (FSEIS) was filed. DSEIS withdrawn per December 23, 2003 Notice of Intent (NOI)
•	Draft Supplemental Environmental Impact Statement (DSEIS)	1995	To review interim alternatives to the C-8 Section to address current and future traffic problems, while remediation issues at the Pine Street Barge Canal Superfund Site and the ultimate location of the C-8 Section are resolved.	Circulated for comment in July 1995
•	Final Supplemental Environmental Impact Statement (FSEIS) / Record of Decision (ROD)	1997	To address comments on the DSEIS and provide documentation for selecting an alternative within the C-6 Section to address existing and future transportation deficiencies for a 5-10-year period (interim).	Selected Alternative chosen  Subsequently withdrawn per December 23, 2003 NOI
•	Draft Supplemental Environmental Impact Statement (DSEIS)	2006	To address design modifications based on the City of Burlington's preferences and to designate C-1, C-2 and C-6 as the preferred final condition of the Southern Connector/Champlain Parkway project.	Identified a Preferred Alternative
•	Final Supplemental Environmental Impact Statement (FSEIS) / Record of Decision (ROD)	2009 / 2010	To address comments on the DSEIS and provide additional documentation for supporting the City of Burlington's Preferred Alternative.	Selected Alternative chosen  FSEIS and ROD Issued January 10, 2010  ROD Rescinded October 7, 2019

## 3. ALTERNATIVES

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### 3.1 Introduction

The Build Alternative being evaluated in this 2020 LS DSEIS was described in the 2009 FSEIS as Build Alternative 2 and identified in the 2010 ROD as the Selected Alternative.

Many of the alternatives considered were eliminated from detailed study during the development of the 2009 FSEIS because they did not meet the Project's purpose and need or resulted in substantial environmental or socio-economic impacts.

The Selected Alternative evaluated in this 2020 LS DSEIS continues to satisfy the purpose and need of the Project, while avoiding or minimizing, to the maximum extent feasible, impacts to environmentally and historically sensitive areas such as, the Pine Street Barge Canal (PSBC) Superfund Site and other areas contaminated with hazardous materials, natural resources, Section 4(f) resources and historic properties, and business and community interests. The Selected Alternative evaluated in this 2020 LS DSEIS is consistent with the 2009 FSEIS.

### 3.2 Selected Alternative

The Selected Alternative consists of the C-1 Section, the C-2 Section, and the C-6 Section. This alternative will be constructed as a two-lane roadway with turn lanes as needed. The Selected Alternative will connect I-189/U.S. Route 7 (Shelburne Street) to the CCD. The three sections of the final design of the Selected Alternative, including design refinements that have been implemented since the 2009 FSEIS, are described below.

#### **C-1 Section: I-189/Shelburne Street to Home Avenue**

The C-1 Section is generally unchanged from the description included in the 2009 FSEIS for Build Alternative 2. This section consists of the reconstruction of the I-189/U.S. Route 7 (Shelburne Street) interchange, and the construction of the Champlain Parkway to Home Avenue. This portion of the Champlain Parkway was previously constructed as a four-lane facility. Within the limits of this previously built section, the roadway will be reconfigured to taper the cross section to one lane in each direction. Excess pavement will be removed or replaced by a widened, raised grass center median along with lighting and landscaping. This section of the Project will provide a transition between the interstate and the City street system; the speed limit will be stepped down to 40 miles per hour (mph) near the Burlington City limit and to 25 mph at a point immediately south of the Home Avenue intersection. The City of Burlington established a citywide speed limit of 25 mph effective November 30, 2011.

#### **C-2 Section: Home Avenue to Lakeside Avenue**

The C-2 Section is generally unchanged from the description provided in the 2009 FSEIS. The C-2 Section will commence at the northern terminus of the C-1 Section, near Home

Avenue, and extend northerly on a new alignment for approximately 0.7 mile to a point immediately south of Lakeside Avenue. The C-2 Section would still be a two-lane facility with dedicated turn lanes at the intersections. Subsequent to the 2009 FSEIS, minor design refinements have been incorporated. Intersection corner radii have been reduced at certain locations to shorten pedestrian crossing distances and reduce vehicle turning speeds. The plans shown in the 2009 FSEIS included a new at-grade highway rail crossing where the Champlain Parkway would intersect the so-called “Grocery Spur” near Sears Lane. An agreement has been reached with the affected landowners and Vermont Railway, Inc. (VTR) to remove the tracks and eliminate the at-grade crossing associated with a portion of the Grocery Spur within the Project limits.

### **C-6 Section: Lakeside Avenue to Main Street**

The C-6 Section is generally unchanged from the description provided in the 2009 FSEIS. As described in the 2009 FSEIS, C-6 Section will utilize Lakeside Avenue and Pine Street to connect C-2 Section of the Project to the Burlington CCD at the intersection of Pine Street and Main Street.

#### *Lakeside Avenue:*

The proposed improvements to Lakeside Avenue are generally the same as those described in the 2009 FSEIS. The proposed shared-use path has been relocated from the southern side to the northern side of Lakeside Avenue to connect to the proposed shared-use path on Pine Street. The City of Burlington received VTrans’ approval in 2017 to underground overhead utilities on Lakeside Avenue.

#### *Pine Street:*

The proposed design for Pine Street consists of cold planing and resurfacing the existing pavement, drainage improvements, new curbing, new concrete sidewalk, and construction of a new shared-use path between Lakeside Avenue and Kilburn Street on the western side. Between Lakeside Avenue and Locust Street, the design will accommodate a 13-foot southbound combined bike/turn lane, one 11-foot travel lane in each direction, and a five-foot bike lane in the northbound direction. Between Locust Street and Kilburn Street, and between Maple Street and Main Street, the design will feature a two-foot shoulder and 11-foot shared lane in the southbound direction while the northbound direction will consist of an 11-foot shared lane, a four-foot painted parking lane buffer and a seven-foot parking lane. Between Kilburn Street and Maple Street, the design consists of an 11-foot travel lane, 1.5-foot bike lane buffer and 5-foot bike lane in both directions. The Project will extend along Pine Street up to and including the Main Street intersection. Traffic calming features including curb bump-outs; raised intersections at Howard Street, Marble Avenue and Kilburn Street have also been incorporated into the design based on public input from various outreach meetings since the 2009 FSEIS. The focus of this LS DSEIS is on the Maple and King Street Neighborhood which is located along Pine Street for approximately 800 feet immediately south of the intersection of Pine Street and Main Street.

## 4. ENVIRONMENTAL JUSTICE ANALYSIS

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### 4.1 Background/Environmental Justice Definition

An EJ analysis focuses on identifying and addressing disproportionately high and adverse human health or environmental effects of the agency's programs, policies, and activities on minority populations and/or low-income populations to the greatest extent practicable and permitted by law.

Since the 2009 FSEIS was approved, the FHWA memorandum *Guidance on Environmental Justice and NEPA* (Guidance), dated December 16, 2011, has been issued. This Guidance advises on the process to address EJ during NEPA review. As described in greater detail below, this analysis has been prepared to meet the federal requirements defined by EO 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, dated February 11, 1994, and FHWA Order 6640.23A, effective June 14, 2012.

#### 4.1.1 Environmental Justice Populations

Minority and/or low-income populations are protected by EJ policies and guidance. For the purposes of EJ, FHWA defines minority populations as: Black, African American or of African descent, of Hispanic or Latino origin, Asian American, American Indian, Alaskan Native, Native Hawaiian, or Pacific Islander. To identify low-income populations, the United States Department of Transportation (USDOT) and FHWA use the Department of Health and Human Services (HHS) poverty guidelines.

#### 4.1.2 Regulatory Context

The EJ analysis followed the procedures recommended in the FHWA NEPA Guidance memorandum as summarized below.

#### **Executive Order 12898**

EO 12898 – *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* – directs federal agencies to “achieve environmental justice by identifying and addressing disproportionately high and adverse human health and environmental effects including the interrelated social and economic effects of their programs, policies, and activities on minority populations and low-income populations in the United States.”

#### **FHWA Order 6640.23A**

FHWA Order 6640.23A specifically details the FHWA's responsibilities in complying with EO 12898 as well as Title VI of the Civil Rights Act of 1964 (Title VI). Under Title VI, FHWA managers and staff must administer programs in a manner to ensure that no person is excluded from participating in, denied the benefits of, or subjected to discrimination under any program or activity of FHWA because of race, color, or national

origin. Under EO 12898, FHWA must administer their programs to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of FHWA programs, policies, and activities on minority populations and/or low-income populations. When determining whether an action will have a disproportionately high and adverse effect, FHWA will consider mitigation and enhancement measures. In determining whether a mitigation measure or alternative is “practicable,” the social economic (including costs), and environmental effects of avoiding of mitigating the adverse effects will be considered.

## **FHWA Guidance on Environmental Justice and NEPA**

The information contained in FHWA memorandum *Guidance on Environmental Justice and NEPA* (Guidance) dated December 16, 2011 advises on the process to address EJ during NEPA review, including documentation requirements. The Guidance defines the process for identifying minority populations and low-income populations, documenting public participation, and identifying disproportionately high and adverse effects. The Guidance directs the agency to use localized census tract data and other relevant information sources to list any readily identifiable groups or clusters of minority and/or low-income persons in the EJ study area. Small clusters or dispersed populations should not be overlooked. The Guidance also directs FHWA to include a discussion of major proactive efforts to ensure public participation, the view of the affected population(s), and steps being taken to resolve any controversy that exists. Lastly, the Guidance provides a step-by-step procedure for summarizing beneficial and adverse effects, comparing impacts on the minority and non-minority populations and low-income and higher-income populations, and the consideration of mitigation measures if necessary.

### **4.2 Methodology and Data Sources**

In conformance with EO 12898, FHWA Order 6640.23A, and FHWA Guidance memorandum, American Community Survey<sup>1</sup> (ACS) data was used to determine if there are any readily identifiable groups of minorities and/or low-income persons who live in the study area. The 2014-2018 5-Year Estimates were used for this analysis. This dataset provides the most recent and reliable data at the census tract and block group level.

The assessment involved four basic steps:

1. Identify the study area to be considered for EJ screening;
2. Compile race, ethnicity, and poverty status data for the study area to identify any minority and/or low-income populations;

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<sup>1</sup> *The American Community Survey (ACS) is an ongoing survey conducted by the Census Bureau between the decennial census. “It is a nationwide, continuous survey designed to provide communities with reliable and timely social, economic, housing, and demographic data every year.” (ACS Information Guide: [https://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS\\_Information\\_Guide.pdf](https://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS_Information_Guide.pdf))*

3. Evaluate if benefits and/or adverse effects on minority and/or low-income populations exist as a result of the Project; and
4. If adverse effects exist, identify and address whether there are any disproportionately high and adverse effects on minority and/or low-income populations after adverse effects have been mitigated. This includes comparing adverse effects on the minority and/or low-income population with adverse effects on the non-minority and/or higher-income populations within the study area to determine if there is a disproportionately high and adverse effect.

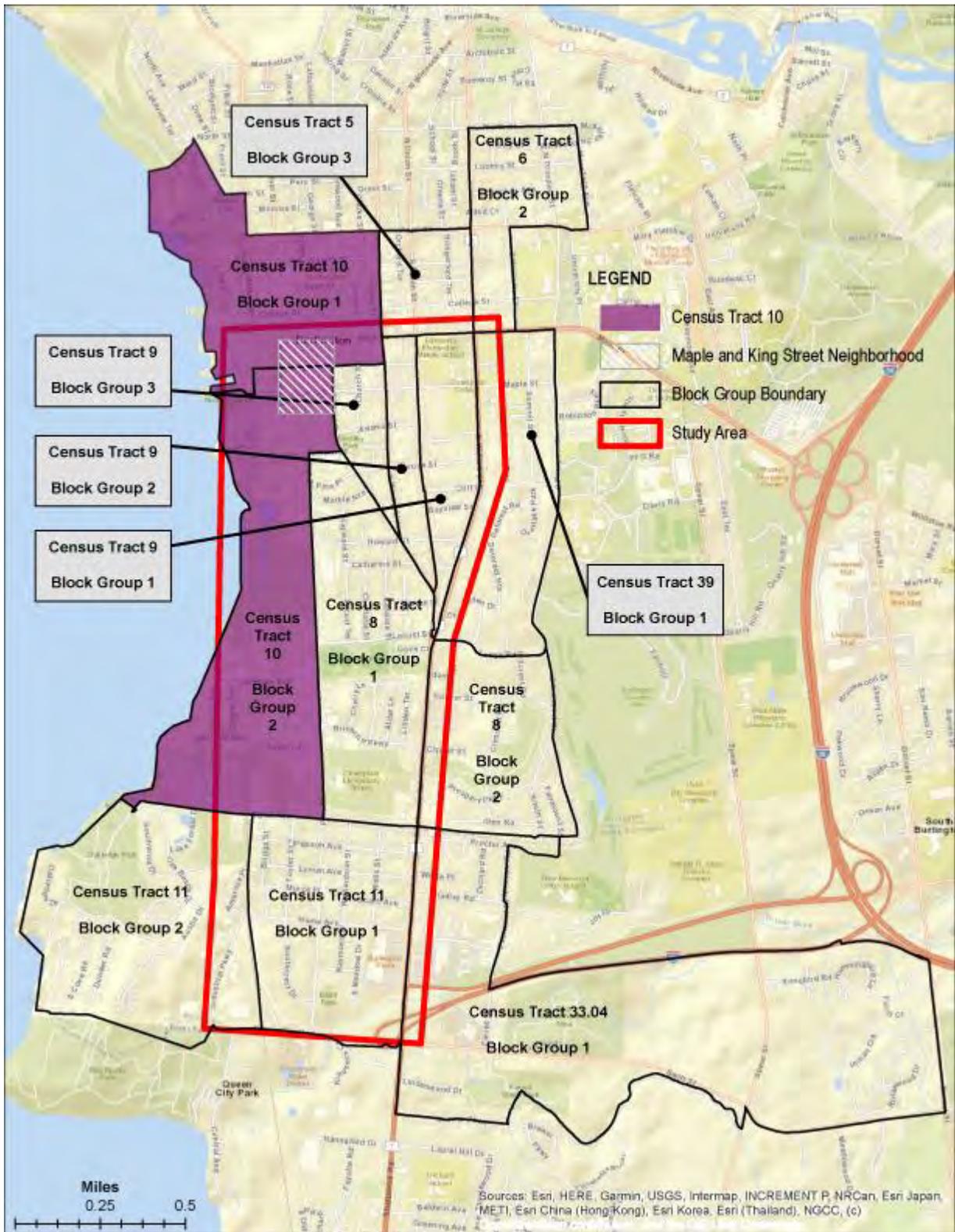
### **4.3 Minority Populations**

The FHWA EJ Order defines minority populations as: Black, African American or of African descent, of Hispanic or Latino origin, Asian-American, American Indian, Alaskan Native, Native Hawaiian, or Pacific Islander. This is used in conjunction with the Title VI statute of the Civil Rights Act of 1964 which prohibits discrimination based upon race, color, and national origin.

Each census tract within the Project study area has at least one minority population that exceeds the City average for that population (Table 4-1: Race and Ethnicity). Based on the 2018 5-Year ACS Estimates and combined with local knowledge and the results of outreach and engagement efforts, there is a minority population in Census Tract 10. The City of Burlington is 17.1% minority, while Census Tract 10 is 18.1% minority. The residential portion of Census Tract 10 that is within the Project study area comprises much of the Maple and King Street Neighborhood.

The combination of recent census data, local knowledge, and the results of the outreach and engagement effort, it has been determined that the Maple and King Street Neighborhood consists of a minority population that will require an environmental justice analysis for this project. The minority population within the Maple and King Street Neighborhood is comprised of Black or African American, American Indian and Alaska Native, and Hispanic or Latino residents.

Figure 4-1: Census Tracts



**Table 4-1: Race and Ethnicity**

Data for the City of Burlington has been used as the threshold; shaded cells indicate values higher than the threshold value.

Geography	TOTAL MINORITY*	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino
Census Tract 5	12.8%	7.5%	0.0%	1.8%	0.2%	0.0%	1.7%	2.7%
<i>Block Group 3</i>	10.8%	4.0%	0.0%	1.9%	0.4%	0.0%	3.2%	3.0%
Census Tract 6	14.6%	5.2%	0.1%	4.6%	0.0%	0.5%	1.6%	3.1%
<i>Block Group 2</i>	10.7%	0.0%	0.2%	8.5%	0.0%	0.0%	0.9%	1.3%
Census Tract 8	16.6%	2.9%	0.4%	10.7%	0.0%	0.4%	1.1%	1.6%
<i>Block Group 1</i>	19.8%	3.8%	0.0%	12.5%	0.0%	0.5%	1.4%	2.1%
<i>Block Group 2</i>	6.8%	0.0%	1.7%	5.1%	0.0%	0.0%	0.0%	0.0%
Census Tract 9	10.9%	1.2%	0.0%	4.3%	0.0%	0.1%	4.5%	1.4%
<i>Block Group 1</i>	13.2%	1.6%	0.0%	2.3%	0.0%	0.3%	6.6%	2.8%
<i>Block Group 2</i>	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.0%
<i>Block Group 3</i>	15.6%	1.6%	0.0%	10.3%	0.0%	0.0%	3.6%	1.0%
Census Tract 10	18.1%	8.8%	1.5%	1.8%	0.0%	0.0%	2.0%	4.1%
<i>Block Group 1</i>	19.1%	7.4%	0.6%	2.4%	0.0%	0.0%	2.7%	6.0%
<i>Block Group 2</i>	16.7%	10.8%	2.8%	1.0%	0.0%	0.0%	1.0%	1.3%
Census Tract 11	13.7%	3.4%	1.5%	2.1%	0.0%	0.9%	4.2%	2.1%
<i>Block Group 1</i>	17.1%	5.5%	2.4%	0.8%	0.0%	0.0%	5.9%	3.3%
<i>Block Group 2</i>	8.0%	0.0%	0.0%	4.4%	0.0%	2.4%	1.2%	0.0%
Census Tract 33.04	12.4%	1.3%	1.0%	5.4%	0.0%	0.6%	2.5%	2.2%
<i>Block Group 1</i>	19.9%	1.0%	2.8%	11.6%	0.0%	1.1%	2.6%	1.9%
Census Tract 39	12.1%	1.7%	0.1%	4.8%	0.1%	0.5%	2.1%	3.8%
<i>Block Group 1</i>	8.4%	2.0%	0.0%	0.3%	0.3%	0.5%	1.2%	6.1%
<b>Burlington City</b>	<b>17.1%</b>	<b>5.3%</b>	<b>0.3%</b>	<b>6.4%</b>	<b>0.0%</b>	<b>0.3%</b>	<b>2.7%</b>	<b>2.8%</b>
<b>Chittenden County</b>	<b>11.2%</b>	<b>2.5%</b>	<b>0.3%</b>	<b>4.2%</b>	<b>0.0%</b>	<b>0.6%</b>	<b>2.0%</b>	<b>2.3%</b>
<i>Source: US Census Bureau, American Community Survey 2018 5-Year Estimates (Tables B02001 and B03002)</i>								
* Total Minority: Sum of each of the protected races (Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Pacific Islander, Some Other Race, Two or More Races) and White Alone Hispanic or Latino.								

## 4.4 Low-Income Populations

To identify low-income populations, the USDOT and the FHWA use the Department of Health and Human Services (HHS) poverty guidelines. Based on these guidelines, none of the Project study area census tracts meet the criteria for low-income populations. Therefore, the EJ analysis did not address low-income populations for this project (Table 4-2).

**Table 4-2: Median Income by Household Size**

Geography	Median Household Income	Household Size						
		1 Person	2 People	3 People	4 People	5 People	6 People	7+ People
Census Tract 5	\$28,854	\$15,889	\$36,473	-	-	\$41,250	-	-
Census Tract 6	\$42,718	\$25,580	\$44,500	-	\$70,476	\$71,210	-	-
Census Tract 8	\$70,216	\$44,444	\$73,214	\$126,806	\$108,750	\$134,844	-	-
Census Tract 9	\$42,202	\$23,523	\$64,715	-	\$83,832	-	-	-
Census Tract 10	\$35,833	\$19,457	\$78,450	\$139,438	-	-	-	-
Census Tract 11	\$95,128	\$65,677	\$99,271	\$93,750	\$116,563	\$250,000+	-	-
Census Tract 33.04	\$69,974	\$42,167	\$81,641	\$84,000	\$141,500	-	-	-
Census Tract 39	\$61,000	\$38,750	\$110,156	-	\$82,917	-	-	-
<b>Burlington City</b>	<b>\$50,324</b>	<b>\$27,255</b>	<b>\$63,780</b>	<b>\$70,192</b>	<b>\$64,767</b>	<b>\$72,242</b>	<b>\$63,155</b>	<b>\$89,524</b>
<b>Chittenden County</b>	<b>\$69,896</b>	<b>\$36,686</b>	<b>\$78,884</b>	<b>\$91,539</b>	<b>\$110,571</b>	<b>\$111,696</b>	<b>\$88,092</b>	<b>\$89,940</b>
<b>2018 HHS Poverty Guidelines</b>	<b>n/a</b>	<b>\$12,140</b>	<b>\$16,460</b>	<b>\$20,780</b>	<b>\$25,100</b>	<b>\$29,420</b>	<b>\$33,740</b>	<b>\$38,060*</b>

*Source: US Census Bureau, American Community Survey 2018 5-Year Estimates (Table B19019)*

\* For households with more than 7 people, add \$4,320 for each additional person.

## 4.5 Public Involvement

The public involvement activities for the EJ analysis have been guided by EO 12898, FHWA Order 6640.23A and the December 2011 FHWA EJ *Memorandum*. The primary goal of the public outreach activities described below was to inform the affected community about the Project and seek input on related transportation and environmental issues. The Maple and King Street Neighborhood, located in Census Tract 10, was the only EJ population within the Project study area based on the 2013-2017 ACS 5-year estimates. However, as the LS DSEIS was in preparation, the updated 2018 ACS 5-year estimates revealed another Asian minority community adjacent to Pine Street between Kilburn Street and Flynn Avenue. It has been determined that the project will have a minimal effect to this community. There will be additional outreach to this community once the LS DSEIS is released.

The City, FHWA, and VTrans conducted a targeted public outreach meeting on September 26, 2019. To ensure meaningful engagement of the minority community, the meeting announcement was translated into Bhutanese-Nepali, Swahili, Somali (Mai-Mai), Burmese, and French. Flyers were mailed directly to residents and City staff went door-to-door distributing flyers. The targeted public outreach meeting was hosted at City Hall, a well-known public landmark that is ADA accessible and within walking distance (i.e. two blocks or approximately 0.3 mile) of the Maple and King Street Neighborhood. The public outreach meeting materials including the PowerPoint presentation is attached in Appendix 6.



**Photo 4-1: September 26, 2019 Public Outreach Meeting, Contois Auditorium, City Hall**



**Photo 4-2: September 26, 2019 Public Outreach Meeting, Contois Auditorium, City Hall**



**Photo 4-3: September 26, 2019 Public Outreach Meeting, Contois Auditorium, City Hall**



**Photo 4-5: September 26, 2019 Public Outreach Meeting, Contois Auditorium, City Hall**



**Photo 4-4: September 26, 2019 Public Outreach Meeting, Contois Auditorium, City Hall**

To help serve the identified environmental justice community, meeting announcements were supplied in multiple languages and interpreter services were made available at the targeted public outreach meeting in the languages identified as being predominant in the minority community. The targeted public outreach meeting allowed the attendees to review displays depicting the proposed Project, view a Project overview presentation provided by the City’s design consultant, and submit verbal and/or written comments. Approximately sixty people participated in this meeting, twenty-one provided verbal comments, and nine written comment cards were received at the meeting. Several people both spoke and submitted written comments. Attendees were not asked to identify themselves by race or ethnicity, therefore this information is not available.

Written comments were also accepted via mail and a specific project email address until October 10, 2019. The comments received and responses from the Project design team are presented in tabular form in Appendix 7. The Project team including City, FHWA, VTrans’ and the design consultant’s personnel were available at the informational open houses before and after the presentation to discuss the Project with attendees as needed.

In addition to the September 26, 2019 public outreach meeting and in response to a comment received at that meeting, the project team hosted an open house at the King Street Center on October 7, 2019 to proactively seek input from Maple and King Street Neighborhood residents and community leaders.

The neighborhood gathering at the King Street Center was useful for promoting dialogue with citizens, stakeholders, and the Project team. City staff and design consultants shared exhibits like those shown to the attendees of the September 26, 2019 public outreach meeting. These included project plans, typical sections and rendering of the proposed Project. Attendees were greeted when entering or leaving the King Street Center on October 7, 2019 and asked if they were aware of the proposed Project, if they were interested in learning more about the proposed Project and if they had any specific questions or concerns that they would like considered by the Project team.



**Photo 4-6: October 7, 2019 Open House at King Street Youth Center**

Attendees asked questions regarding the following:

- Increase in traffic volumes in the neighborhood;
- Pedestrian safety throughout the Project corridor;

- Effectiveness of curb extensions;
- Community impacts during construction.

Although comment forms were made available at the gathering, no written comments were received at that time. Attendees were encouraged to take a comment form and submit written comments to the City, FHWA, or VTrans. Approximately twenty people participated in this open house. Organizers did not ask participants about race or ethnicity so this information is not available.

During the public comment period following the September 2019 public meeting, approximately 100 comments were received (including verbal comments at the public meeting, comment cards submitted at the public meeting, emailed comments, and mailed letters/comments). The general consensus of the comments related to environmental justice in the Maple and King Street Neighborhood detailed issues including:

- Need for bicycle and pedestrian safety
- Better and wider sidewalks for pedestrian safety and ADA accessibility
- Improved safety measures for families and children crossing the road
- Worksite safety
- Communication about construction impacts and timing

These were the main issues identified from comments from the September 2019 public meeting.

#### **4.6 Project Benefits and Adverse Effects**

The proposed design for Pine Street within the Maple and King Street Neighborhood will address community concerns as provided through the public involvement process and provide needed improved operations within the community. Proposed Pine Street improvements within the Maple and King Street Neighborhood will consist of cold planing and resurfacing the existing pavement, drainage improvements, reconstruction of sidewalks and new signals and new curbing. Between Maple Street and Main Street, the design will feature a two-foot shoulder and 11-foot shared lane in the southbound direction while the northbound direction will consist of an 11-foot shared lane, a four-foot painted parking lane buffer and a seven-foot parking lane. All work will take place within existing right of way except for temporary easements necessary to complete the work. Additional details of these proposed project benefits are described in Chapter 7 Environmental Consequences and Mitigation.

Mobility, including vehicular traffic and bicycle and pedestrian circulation, and traffic safety will be improved. On-road bicycle accommodations will be provided on Pine Street

from Main Street through King and Maple Street to Lakeside Avenue. In addition to the on-road bicycle accommodations, a shared use path will begin at Kilburn Street and extend to where the proposed project turns right onto Lakeside Avenue. This shared use path will accommodate pedestrians, bicyclists, and non-vehicular movement. Sidewalks on both sides of Pine Street are currently in disrepair but will be rebuilt with this proposed project. This will ensure ADA compliance and improve accessibility and safer pedestrian movement in and around the community for those who use these sidewalks.

Traffic signals will be located at three (3) key area intersections of Pine/Maple Street, Pine/King Street and Pine/Main Street to achieve improved intersection and traffic flow operation. The existing signal at Pine/Main Street will be upgraded and new signals will be installed at Pine/Maple Street and Pine/King Street. These traffic signals will operate in a coordinated network to promote smoother north/south traffic progression along Pine Street. Additionally, curb extensions to calm vehicular traffic movements to and from Maple Street and King Street will also be installed to promote through traffic to remain on Pine Street rather than utilizing residential streets. As more traffic is induced to stay on Pine Street because of signalization and improved traffic flow, it is anticipated this will redistribute traffic congestion currently experienced at Maple Street and King Street. The project balances the traffic flow so that the volumes on Maple Street and King Street are approximately equal in the sections between Battery Street and Pine Street. The improved traffic flow operation will reduce the high concentration of turn movements at Pine Street and Maple Street and redistribute some of the volume to/from King Street and the rest of Main Street. This redistribution of traffic volumes will enable the critical movement intersection of Pine and Maple Street to function more efficiently. Level of Service (LOS) will improve throughout the Maple and King Street Neighborhood, which means that even though the number of vehicles using Pine Street will increase, vehicles will move more freely through the neighborhood. It is anticipated there will be temporary construction impacts to implement these project improvements. These construction-related activities, will be distributed throughout the entirety of the project area and will be mitigated to the maximum extent feasible. A Public Involvement Plan will help mitigate temporary construction impacts by informing the community of anticipated impacts and project timelines.

#### **4.7 Project Impacts**

It is anticipated the Selected Alternative for this project will increase traffic volumes by approximately 1,400 vehicles per day (vpd) (approximately 9%) on Pine Street north of Lakeside Avenue, including in the Maple and King Street Neighborhood, when compared with the No-Build alternative. While the Project is expected to have a limited footprint and construction impacts in the Maple and King Street Neighborhood, the impacts of the increased traffic within the Maple and King Street Neighborhood was evaluated for adverse effects through an environmental justice analysis. The proposed project was evaluated in terms of traffic volume and flow, pedestrian and vehicular movement, and area congestion. It was determined that the Project will result in improved traffic operations and decreased congestion on Pine Street in the Maple and King Street Neighborhood due to newly installed coordinated traffic signals which will provide smoother traffic flow, improved

intersection operation, and decreased delay. It is anticipated these upgrades will address the adverse effects resulting from the increase in traffic volumes. Newly installed sidewalks and on-road bicycle accommodations will provide ADA compliance and improved accessibility, bicycle, and pedestrian safety. The EJ analysis detailed how anticipated adverse effects to minority populations will be addressed to achieve improved accessibility and safety, pedestrian and vehicular mobility, improved traffic operations, and decreased overall congestion on Pine Street in the Maple and King Street Neighborhood. Additional adverse effects are anticipated to be borne by all neighborhoods within the Project Area. It is not anticipated that any adverse effects will rise to the level of disproportionately high and adverse but will also be mitigated to provide operational benefits to the community as highlighted above. Project impacts are summarized for the Maple and King Street Neighborhood as well as all other neighborhoods within the Project Area in Table 4-3 below.

**Table 4-3: Summary of Project Impacts by Neighborhood**

Affected Environment*	Neighborhoods							
	Maple and King Street	Calahan (South) Park	Birchcliff Parkway	Lakeside	Flynn Avenue/ Home Avenue	South Meadows	Oakledge	Austin Drive
<b>Land Use and Socioeconomics</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Traffic Volumes</b>	<b>Negative</b>	<b>Negative</b>	Positive	<b>Negative</b>	Positive	Positive	Neutral / None	Neutral / None
<b>Mobility</b> <i>(Traffic Operations and Bicycle and Pedestrian Access)</i>	Positive	Neutral / None	Positive	Neutral / None	Positive	<b>Negative</b>	Neutral / None	Neutral / None
<b>Traffic Safety</b>	Positive	Positive	Positive	Neutral / None	Positive	Positive	Neutral / None	Neutral / None
<b>Air Quality</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Noise Environment</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Historic and Archaeological Resources</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Construction Impacts</b>	<b>Negative</b>	<b>Negative</b>	Neutral / None	<b>Negative</b>	<b>Negative</b>	<b>Negative</b>	Neutral / None	Neutral / None

\* Mitigation Measures have been incorporated into this matrix.

#### **4.8 Disproportionately High and Adverse Effects**

A review of project improvements, adverse effects, and mitigation measures, described above determine the adverse effects of the Project will not cause disproportionately high and adverse effects on any minority populations in the Maple and King Street Neighborhood in accordance with the provisions of EO 12898 and FHWA Order 6640.23A.

#### **4.9 Conclusion**

The EJ analysis completed for this Project determined that there is a minority population in the Maple and King Street Neighborhood, but that no low-income populations exist within the Study Area. The most recent ACS dataset (2014-2018 5-year estimates) were used to determine demographics. The ACS provides the most reliable source of demographic data for the area. The ACS data was bolstered by local knowledge and public outreach. The combination of ACS data, local knowledge, and public comments were used to determine the location of minority population used for the EJ analysis.

Though it was found that there are adverse effects on the Maple and King Street Neighborhood as a result of this project, the neighborhood will also experience project benefits and adverse effects will be mitigated. Since adverse effects will be mitigated and are shared throughout the project area, the EJ analysis concluded that the Project will not cause disproportionately high and adverse effects on any minority populations in the Maple and King Street Neighborhood in accordance with the provisions of EO 12898 and FHWA Order 6640.23A.

## **5. SCOPING, AGENCY COORDINATION & PUBLIC PARTICIPATION**

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### **5.1 Scoping, Agency Coordination**

The FHWA is the lead federal agency for this 2020 LS DSEIS. FHWA, the Vermont Agency of Transportation (VTrans) and the City of Burlington are funding this Project, and the City of Burlington is responsible for implementation of the Project.

There is no formal scoping process required for a LS DSEIS. Meetings were held with individual resource agencies throughout the course of this Project to obtain input on environmental issues. Monthly coordination meetings with representatives from the City of Burlington, FHWA and VTrans were held from August 2019 through March 2020.

### **5.2 City of Burlington/Public Involvement**

#### **5.2.1 Public Participation**

EO 12898 requires federal agencies to work to ensure greater public participation in the decision-making process. Furthermore, FHWA Order 6640.23A directs FHWA to identify and address disproportionately high and adverse impacts to minority and/or low-income populations. By providing targeted public involvement opportunities and considering the results thereof, public participation provides the framework to address and document major proactive efforts to ensure meaningful opportunities for engagement of the EJ population.

#### **5.2.2 Public Outreach Since 2009 FSEIS**

Since the 2009 FSEIS and 2010 ROD, the City has provided opportunities for public engagement and comment on the Project and issues related to traffic along the Pine Street Corridor. During the period of May and June 2010, four separate public meetings were held to discuss the following topics: mobility, neighborhood and community issues, economic development, and environmental concerns. These meetings were held throughout the Project Area and at City Hall.

In December 2014, an open house was held for the King Street Neighborhood to discuss traffic calming measures. This open house was held at in the Bobbin Mill Community Room, located just south of the Maple and King Street Neighborhood. Meeting participants shared the following observations, concerns, and suggestions at this meeting:

- It is challenging to cross Maple and South Champlain Street because drives make rolling stops
- Large vehicles cause crashes and turning conflicts at the intersection of Maple and Pine Street.
- Drivers ignore the stop signs and speed on King Street.
- Pine Street backs up with traffic and people use two lanes to turn right at Maple Street.

- There is heavy traffic volume in the residential area and drivers seem unaware of the neighborhood.
- Some drivers avoid Pine Street and use St. Paul as an alternative route, but the on-street parking there narrows the street and decreases visibility.
- Maple Street is a truck route, not King Street. Some residents would prefer to have no trucks on Maple Street after the Parkway is constructed.
- Four-way stops create poor capacity and increase driver frustration. Traffic signals are predictable but increase speeding. Residents wanted to know if there would be more left or right turns at the lights.
- Residents asked if it would be possible to make safety improvements after the Parkway if changes affect the traffic model.
- There is poor street lighting at intersections and off of Pine Street.
- Residents asked if the traffic data collected for the Project should be expanded to include blocks west of St. Paul Street and if there was a need for traffic volumes by hour.
- Residents asked if crashes could be avoided during construction.
- Residents asked if it would be possible to do one-way roads in pairs to allow for bikes and new streetscape. There is also concern that one-way streets could increase traffic volumes and speeds.
- Residents asked if the City could reduce speed limits, especially on King Street.
- Drivers try to avoid congestion on Main Street by using King Street and Maple Street.

Figure 5-1: December 2014 Public Meeting Flyer



In September 2015, another meeting was held at the Bobbin Mill Community Room. Flyers were mailed to neighborhood residences and six people participated in the meeting. The City had a poster on display and gave a presentation on traffic calming techniques and streetscaping. Most of the comments received at this meeting were related to work on Battery Street. The idea of using a traffic circle at the intersection of King Street and South Champlain Street was also discussed. Attendees talked about chicanes and parklets with the City's DPW staff.

In November 2015, a public meeting was held at the Champlain Elementary School to present the Pine Street safety enhancements to the Project's design that arose from the preceding public input.

**Figure 5-2: September 2015 Public Meeting Flyer**



In June 2016, a pop-up engagement event was held at the intersection of King Street and S. Champlain Street to discuss proposed intersection improvements in the Maple and King Street Neighborhood. A flyer was mailed to residents and businesses in the area and people were able to stop by and spend as much, or as little, time as they wanted with City DPW staff. The improvements discussed were unrelated to the Champlain Parkway, but many of the comments received were consistent with the design of this Project. Residents who participated in this event said that they felt that the area was dangerous for pedestrians and they liked the idea of curb extensions and other traffic calming techniques to help slow traffic and improve pedestrian safety. Consistent with the Parkway design, participants asked for improved pedestrian and bicycle infrastructure.

**Figure 5-3: June 2016 Public Meeting Flyer**

**King Street Neighborhood  
Residents and Businesses:**

The Department of Public Works invites you to come discuss the plans for traffic calming in the King Street Neighborhood. City staff will be setting up a one-day demonstration of a curb extension at the corner of King St and South Champlain St and we want to talk to you!

When: **Tuesday, June 21 @ 4 PM**  
Where: **The southeast corner of King St and S. Champlain St.**



We've been listening to your feedback and have been busy this winter planning how to make your neighborhood safer and more enjoyable.

**Please come out and chat with neighbors and city staff about this progress!**  
**Light refreshments available.**

Can't attend or have questions?

Contact Nicole Latch, 865-5833 or [nlatch@burlingtonvt.gov](mailto:nlatch@burlingtonvt.gov)

DPW Office of Engineering // 645 Pine Street, Suite A // Burlington, VT 05402  
802.863.9094 F // 802.863.0466 F // 802.863.0450 TTY  
[www.burlingtonvt.gov/dpw](http://www.burlingtonvt.gov/dpw)



As a result of these meetings and events, the Champlain Parkway design was revised to include curb extensions. A letter DPW sent to businesses and residents in the area in August 2017 informed the public that “Traffic calming for this neighborhood has been developed in parallel with the upcoming Champlain Parkway project. The curb extensions conceptualized by the neighborhood are now incorporated into the Champlain Parkway design plans. These aim to slow traffic speeds and divert truck traffic from the neighborhood to Pine Street, Main Street, and Battery Street.”

### 5.2.3 Public Comment Process

A public comment process has been established for this LS DEIS. To inform the community, a public notice will be provided regarding the time and place of the public hearing and the availability of outreach materials on the Project's website. This notice will be distributed using the local newspapers, the City's social media accounts, direct mailings to neighborhood residents, and the Project's website at <http://champlainparkway.com>. Flyers will also be posted in local businesses, organizations, and community facilities. Virtual outreach materials will be posted to the Project's website after the LS DSEIS is made available to the public. A public hearing will also be held. Pending restrictions due to the COVID-19 pandemic and FHWA guidance, this hearing will be held at an accessible location in Burlington and/or hosted virtually. It is anticipated that the public hearing and virtual outreach will occur during the summer of 2020.

After clearance by FHWA, the LS DEIS will be made available to the public and circulated for comments by VTrans to: all public officials, private interest groups, and members of the public known to have an interest in this Project; all Federal, State, and local government agencies expected to have jurisdiction, responsibility, interest, or expertise in the Project; and States and Federal land management entities which may be affected by the Project (40 CFR 1502.19 and 1503.1). Distribution must be made no later than the time the document is filed with the Environmental Protection Agency for publication in the Federal Register and must allow for a minimum 45-day review period (40 CFR 1506.9 and 1506.10). The virtual outreach and public hearing will occur during this time. Any member of the public may submit verbal comments at the public hearing and/or submit written comments via regular mail, email, or through the Project's website.

Project status updates through the Project website, local media, and project open houses will also be provided.

The 2020 LS FSEIS will address the written and oral comments received during the 2020 LS DSEIS availability period.

## **6. AFFECTED ENVIRONMENT**

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### **6.1 Introduction**

The following sections provide updated information specific to resources located in the Maple and King Street Neighborhood that were considered in the EJ analysis. Other resources were evaluated and found to either not be present in the geographic area or not affected by the project: rail operations; water resources; vegetation and wildlife resources; public, conservation, and recreation land; hazardous materials; and visual setting.

### **6.2 Land Use and Socioeconomics**

#### **6.2.1 Existing Neighborhoods**

The Maple and King Street Neighborhood, which is located along Pine Street for approximately 800 feet immediately south of the intersection of Pine Street and Main Street, is at the northern end of the Southern Connector/Champlain Parkway project within the section described as C-6 in the project description and shown on Figure 6-1 below.

Figure 6-2 shows the eight neighborhoods within the Project Area as identified in the 2009 FSEIS. These neighborhoods were used to review overall project impacts and make a determination of high and adverse effects on the EJ population in the Maple and King Street Neighborhood.



**LEGEND**

- SIDEWALK
- SHARED USE PATH
- PROPOSED ROADWAY
- MAPLE AND KING STREET NEIGHBORHOOD



**Southern Connector/Champlain Parkway MEGC-M5000(1)**



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III Winners Circle, PO Box 5269 • Albany, NY 12205-0269  
Mail: (518) 434-4500 • www.chacompanies.com

**FIGURE 6-1**

**PROJECT CORRIDOR**

Page 6-2

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USER = 5375

**Figure 6-2: Land Use - Maple and King Street Neighborhood**

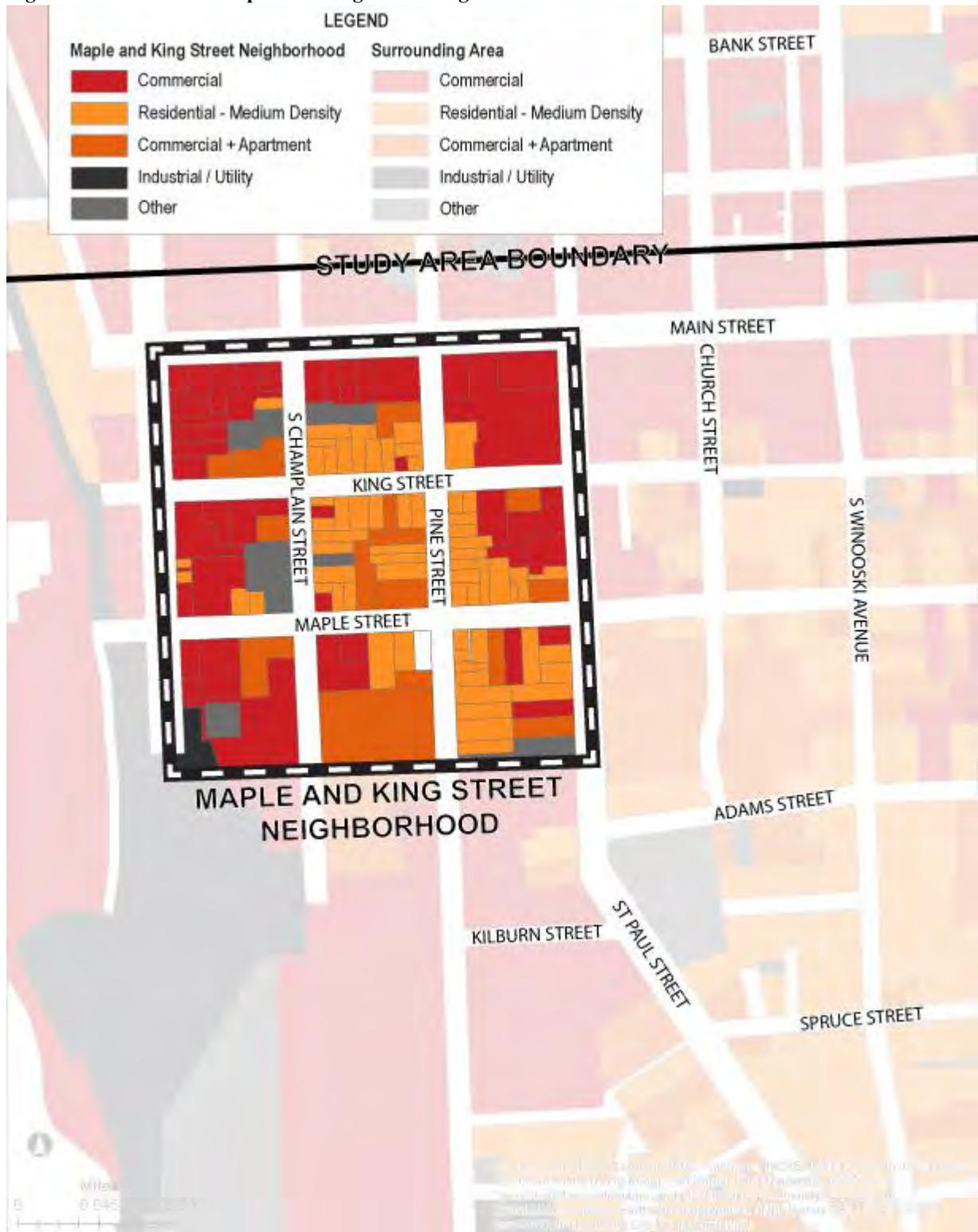


Figure 6-3: Project Area Neighborhoods



The neighborhood is in a downtown transitional area consisting predominately of medium density multi-family residential homes, bordered by the CCD to the north and limited commercial/industrial and mixed-use buildings to the south (See Figure 6-4). There is a continuous sidewalk, in need of repair, and a green strip along both sides of Pine Street with overhead utility poles and wires on the western side of Pine Street. The following images show current conditions in the Maple and King Street Neighborhood.



**Photo 6-1: Pine Street facing north**



**Photo 6-2: Numerous deficient sidewalk access ramps**

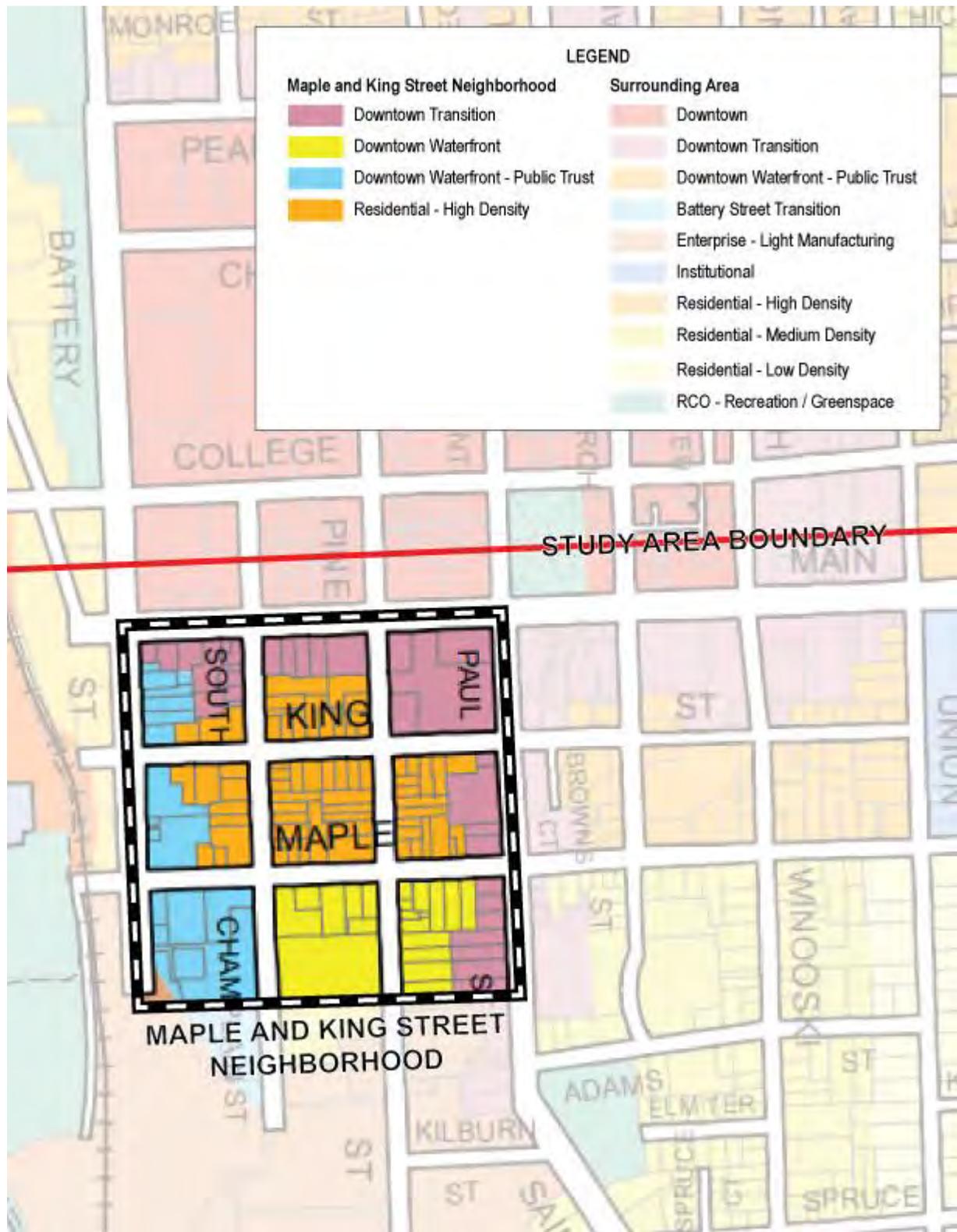


**Photo 6-3: Existing Sidewalk Conditions**



**Photo 6-4: Existing Sidewalk Discontinuities**

Figure 6-4: Zoning - Maple and King Street Neighborhood



In recent years, the areas along Pine Street south of the Maple and King Street Neighborhood have been transitioning from its heavy industrial and manufacturing past to industries such as technology, art and design and small-scale retail uses. Several buildings along Pine Street and Lakeside Avenue have been converted from industrial uses to commercial and retail spaces.

Notable examples of development that has occurred since the 2009 FSEIS include the following:

- Dealer.com (Pine Street)
- Innovation Center (Lakeside Avenue)
- The Howard Center (Flynn Avenue)
- Champlain College (Lakeside Avenue)
- City Market Co-op (Flynn Avenue)
- Various microbreweries (Flynn Avenue and Pine Street)

As stated in the 2009 FSEIS, a shift in land use from industrial to commercial typically results in increased automobile traffic and reduced commercial vehicle movements. However, there are still industrial uses along the Project corridor that will continue to attract commercial vehicle traffic. The Project will provide a suitable and efficient access route for this traffic, consistent with the purpose and need. In some instances, such as City Market, the traffic impact mitigation for the redevelopment was predicated on the construction of the Project to alleviate access and circulation for employees, customers and truck deliveries.

As described in Chapter 4, an EJ analysis was completed within the Project study area. Although it was determined that none of the Project study area census tracts meet the criteria for low-income populations, Census Tract 10 was identified as a minority population given the substantially higher percentage of minority residents than the City or county. The residential portion of this census tract that is within the Project study area comprises much of the Maple and King Street Neighborhood.

In more recent (2018) U.S. Census data made available in December 2019, the percentage of minority residents in the Maple and King Street Neighborhood is only marginally higher than the citywide average. However, given the meaningfully greater percentage of minority residents there in prior, yet still recent, census data, combined with local knowledge and the results of outreach/engagement effort, it has been determined that the Maple and King Street Neighborhood is considered to be a minority community for the purposes of the project's EJ analysis.

## 6.3 Transportation Systems

### 6.3.1 Traffic Volumes and Design Forecasts

Vehicle traffic volumes were originally developed for the Project's NEPA evaluation and Project design in 2004, for the Draft Supplemental Environmental Impact Statement (DSEIS) published in 2006 and FSEIS in 2009. These design volumes were based on the regional travel demand model developed by the regional Metropolitan Planning Organization (MPO).

The design horizons considered in the 2009 FSEIS were 2008 (ETC) and 2028 (ETC+20). Because the path to construction did not follow the Project schedule anticipated in the 2009 FSEIS, traffic volumes in the Project study area were reviewed as part of a Project Reevaluation prepared in May 2019.<sup>2</sup> The Reevaluation included a comprehensive compilation of historic volume data for the period 2003-2016. The reevaluation of traffic conditions concluded that, although the Project's construction schedule has been pushed out, the traffic data and forecasts utilized for the Project from the 2009 FSEIS are still relevant. This is because actual traffic data collected in the Project area in recent years shows that the modeling for the 2009 FSEIS used aggressive growth assumptions, resulting in a higher forecast of traffic volumes than has occurred to date. Thus, traffic volumes have not yet reached the levels forecast for the 2008 ETC, making it appropriate to continue to use the 2008 forecast traffic volumes for the ETC of the Project. However, these design volumes are not so high as to affect the overall objectives of the Project or the elements of the design.

The fact that traffic volumes have increased at a slower rate makes it appropriate to continue to use the previous ETC and ETC+20 volumes from the 2009 FSEIS as the ETC and ETC+20 traffic forecasts for the Project. Further, the fact that traffic increased at a slower rate than forecasted does not invalidate the results of the traffic analysis, it simply makes the traffic analysis a more conservative forecast of future conditions. One conclusion from the slower traffic growth is that if traffic continues to grow at a slower pace, the design life of the Project will effectively be extended.

### 6.3.2 Mobility

Considering the correlation of existing and projected volumes as documented in the May 2019 Reevaluation (Appendix 8), traffic operations within the corridor are expected to be consistent with the analysis presented in the 2009 FSEIS, although actual level of service

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<sup>2</sup> *Southern Connector/Champlain Parkway Project MEGC-M5000(1) – Reevaluation of 2009 Final Supplemental Environmental Impact Statement, Clough Harbour & Associates, LLP in association with Stantec Consulting Services, Inc., March 2019*

(LOS) may be better with less vehicular delay through the horizon years of the Project if development and traffic growth does not occur as rapidly as was forecasted.

The 2009 FSEIS described the operating conditions of the following three Project intersections in the Maple and King Street Neighborhood:

- Pine Street and Maple Street
- Pine Street and King Street
- Pine Street and Main Street

**Methodology:** The operations analyses of these intersections as documented in the 2009 FSEIS were conducted using the 2000 *Highway Capacity Manual* (HCM). These analytical procedures provide a quantitative basis to characterize the quality of traffic flow based on a LOS concept, where LOS A represents essentially unconstrained operations and LOS F represents highly congested conditions. An overall intersection LOS D has been the targeted threshold for acceptable design for the Project. However, specific approaches or lane groups have been designed to operate at lower LOS in the design horizon years based on considerations of volume, existing LOS, functional priority of the approach/lane group, and/or the feasibility and impacts of additional capacity enhancement. These performance goals were established by VTrans and the City of Burlington and were the basis of the 2009 FSEIS alternatives analyses and for the design of the Selected Alternative. Because Pine Street is an urban arterial and on the National Highway System (NHS), the traffic operations along Pine Street have a higher functional priority in the transportation network than Maple Street and King Street. Main Street is also an urban arterial on the NHS and thus also has a functional priority in the network.

For signalized and unsignalized intersections, LOS is defined in terms of average control delay (seconds). Control delay is a measure of stopped delay and the associated delay of slowing and queuing experienced by vehicles moving through an intersection. At signalized intersections, control delay is determined for each individual approach and for the intersection as a whole. At unsignalized intersections, control delay is determined for the traffic movements from the stop sign controlled approaches. The delay thresholds for LOS at signalized and unsignalized intersections differ because of the different driver expectations of operating efficiency of these two types of control conditions. Table 6-1 summarizes the LOS criteria for signalized and unsignalized intersections.

**Table 6-1: Intersection Levels of Service (LOS) Criteria**

Level of Service (LOS)	Characteristics	Unsignalized Control Delay per Vehicle (sec)	Signalized Control Delay per Vehicle (sec)
A	Little or no delay	≤ 10	≤ 10
B	Short delays	> 10 and ≤ 15	> 10 and ≤ 20
C	Average delays	> 15 and ≤ 25	> 20 and ≤ 35
D	Long delays	> 25 and ≤ 35	> 35 and ≤ 55
E	Very long delays	> 35 and ≤ 50	> 55 and ≤ 80
F	Extreme delays	> 50	> 80

Source: *Highway Capacity Manual, Transportation Research Board, National Research Council, 2000 and 2016*

**Traffic Operations without the Project:** The Pine Street-Maple Street and Pine Street-King Street intersections are both controlled by All-Way Stop Control (AWSC), and the intersection of Pine Street and Main Street is controlled by a traffic signal. The operations analyses of these locations from the 2009 FSEIS documented that the intersection of Pine Street-Maple Street experiences significant traffic congestion (LOS F) during the AM and PM peak hours, and projected that the levels of congestion were expected to increase over the 20-year planning horizon of the Project in the No-Build condition.

The operations at Pine Street-King Street and Pine Street-Main Street were documented to operate at acceptable levels of service. Table 6-2 provides a summary of the overall LOS for the AM and PM peak hours at each intersection for the ETC and ETC+20 No-Build conditions.

**Table 6-2: LOS Summary: Maple and King Street Area Project Intersections**

Location	Control Type	ETC No-Build		ETC+20 No-Build	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Pine Street & Main Street	Signal	B	B	B	B
Pine Street & King Street Pine Street & Maple Street	AWSC AWSC	C F	C F	C F	D F

The existing LOS F conditions during peak hours at the intersection of Pine Street and Maple Street produce long traffic delays and vehicle queues. The projected conditions in the ETC+20 design horizon shows that these congestion levels will worsen substantially if the Project is not built. The analysis of the future operations without the Project shows that traffic demand will significantly exceed the capacity of the AWSC during peak hours. The average traffic delay of all traffic moving through the intersection will be 124 seconds/vehicle during the AM peak hour and 202 seconds/vehicle during the PM peak hour in the ETC+20 No-Build condition. The queues associated with this congestion spill over to adjacent intersections (such as to the Pine Street/King Street intersection), which then also increases congestion there.

### 6.3.3 Traffic Safety

Traffic safety has been an integral consideration for the Project's design. The 2009 FSEIS noted the safety concerns created by through traffic using local neighborhood streets as short cuts. Considerations of pedestrian and bicyclist safety was a key factor in the decision to reduce the cross-section of the new Champlain Parkway segments (between the Home Avenue and Lakeside Avenue) from four lanes to two lanes, to add exclusive pedestrian phases to the intersection signals, and to reduce the design speed of the Project.

This section of the report presents an assessment of safety issues in the Maple and King Street Neighborhood by examining the locations and characteristics of crashes in the Project area. VTrans maintains a statewide database of all reported crashes along all state highways and federal-aid road segments.<sup>3</sup>

A reportable crash is a collision with at least one of the following results caused by the event:

- property damage exceeding \$3,000
- personal injury
- fatality

Areas of interest are screened by identifying High Crash Locations (HCL). An HCL is a segment of road or an intersection where the actual crash rate is substantially higher than expected values for a similar type of facility. In order to be classified as an HCL, an intersection or road segment (0.3-mile segment) must meet the following two conditions:

It must have at least five crashes over a five-year period (one crash per year); and

The Actual Crash Rate must exceed the Critical Crash Rate. The actual crash rate is equal to the number of crashes at a location divided by the number of entering vehicles. The

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<sup>3</sup> This data is exempt from Discovery or Admission under 23 U.S.C. 409.

critical crash rate is also calculated for each specific location based on the functional class of the roadways involved and the number of entering vehicles.

VTrans performs these calculations and publishes the results in *High Crash Location Reports* for each five-year periods of available data. The VTrans' reports also provide additional background information regarding the methodologies used for the statistical analyses. These documents are available at the following VTrans' website:

<https://vtrans.vermont.gov/docs/highway-research>.

Safety analyses conducted as part of the Act 250 permitting process for the Project included a screening of the VTrans' HCL data for the periods January 2003 - December 2007 and January 2006 - December 2010. Table 6-3 lists the HCL locations along Pine Street identified in these reports

The Maple Street-King Street portion of the Project is part of the same HCL Section of Pine Street from Kilburn Street to Main Street that was identified in the 2006-2010 data.

There was one crash involving a pedestrian or bicyclist in the Maple Street-King Street area of the Project in the 2003-2007 reporting period, which occurred at the Maple Street and Pine Street intersection. There were no pedestrian or bicyclist related crashes in this area of the Project in the 2006-2010 reporting period.

**Table 6-3: HCL Locations**

<b>Years</b>	<b>HCL Intersections</b>	<b>HCL Sections</b>
2003-2007	Pine St & Main St	Flynn Ave to Birchcliff Pkwy Howard St to Kilburn St
2006-2010	None	Flynn Ave to Birchcliff Pkwy Howard St to Kilburn St Kilburn St to Main St
2012-2016	None	Birchcliff Pkwy to Electric Ave Howard St to Kilburn St Kilburn St to Main St

The VTrans' *High Crash Location Report* for the period 2012-2016 (latest report available) was reviewed to provide an updated context of safety considerations in the Maple Street-King Street neighborhood. This report identifies that there were no HCL Intersections along Pine Street, but three linear sections of Pine Street are HCL Sections. This is the same as what was identified in the report of the 2006-2010 data, although the current boundaries of the southerly HCL Section are different. The HCL locations on Pine Street from the HCL Report for years 2012-2016 are also shown in Table 6-3.

The Project will improve traffic safety along the Pine Street corridor in different ways. In the South Meadow neighborhood south of Home Avenue and the Home-Flynn and Birchcliff Parkway neighborhoods of Pine Street between Home Avenue and Lakeside Avenue, the reduced volume of traffic associated with the Project will have a positive effect on traffic safety. Most of this part of Pine Street is outside of the limits of the physical improvements to be constructed by the Project.

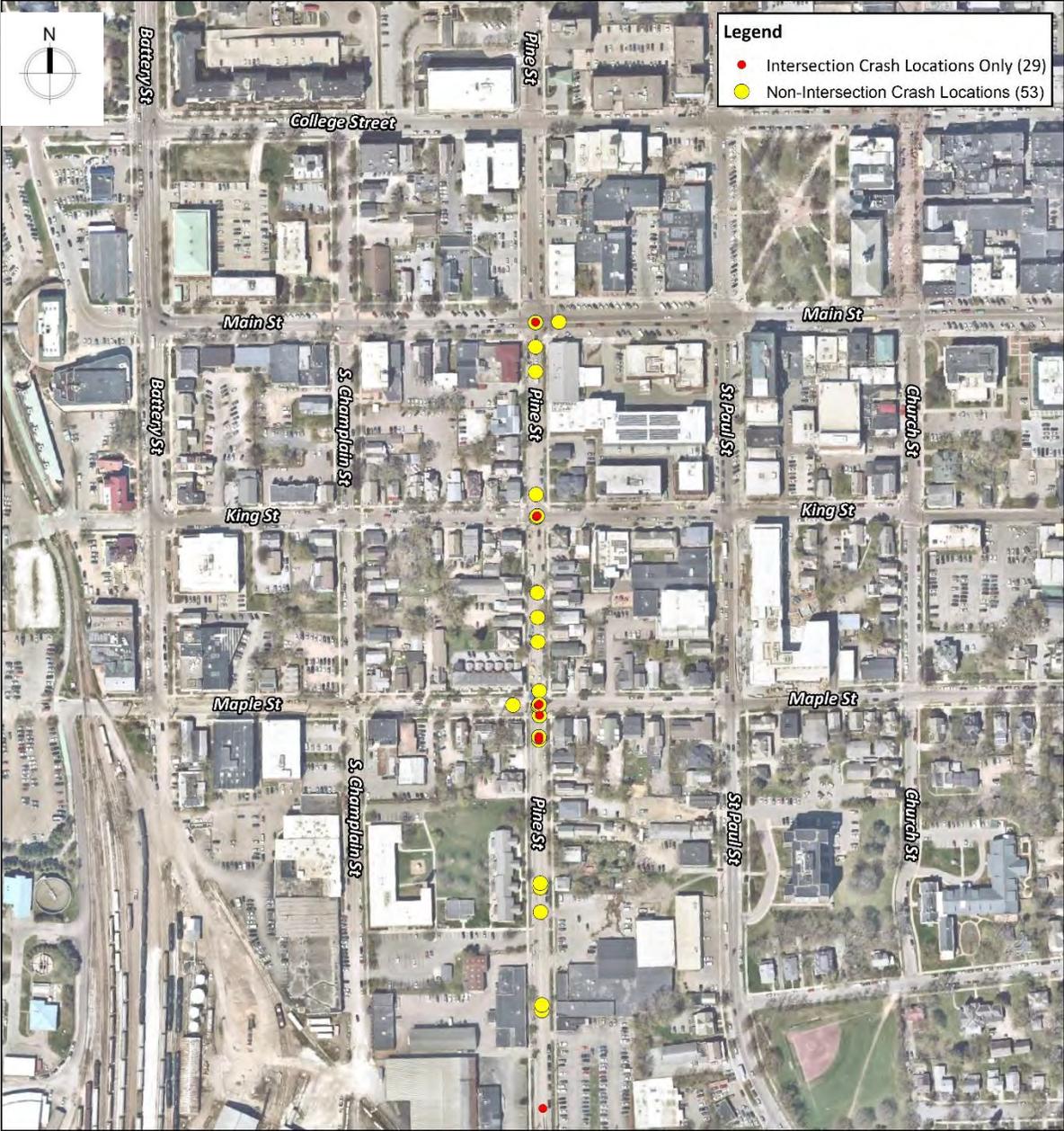
The segment of Pine Street in the Calahan (South) Park neighborhood between Lakeside Avenue and Kilburn Street has driveways providing access to a mix of commercial uses on both sides of the street and unsignalized intersections with local streets. The types of access management issues that exist in this area of the Project include closely spaced driveways, multiple driveways per parcel, wide and undefined driveways, driveways located too close to an intersection, and driveways and/or intersections on opposite sides of the streets that are not aligned. This section of Pine Street will be rehabilitated as part of the Project and will include new curbing and sidewalks that will provide better definition and alignment of existing driveways. The Project will also include curb extensions at intersections, raised crosswalks and other improved accommodations for pedestrians and bicyclists. This rehabilitation work and traffic calming will help improve the traffic safety for all users of the corridor.

The 2012-2016 crash data shows that the section of Pine Street within the Maple Street-King Street Neighborhood continues to be part an HCL Section (from Kilburn Street to Main Street). Because of this HCL designation, crash data was compiled for Pine Street for the period 2015-2019 from online data accessed from the VTrans' website. This data shows that 273 crashes occurred along Pine Street between Main Street and Queen City Park Road over this five-year period. These include crashes at intersections, along the links between intersections and at driveways. This count also includes crashes that occurred on the intersecting side streets at or near Pine Street. The three most common types of crashes were rear end, broadsides (no turns), and sideswipe (same direction). These types of crashes accounted for approximately 50% of all crashes. Crashes identified as 'Other' or that did not have a crash type specified comprised another 38% of all crashes. Most of the crashes along Pine Street were property damage only (89%). There were 31 crashes that resulted in personal injury (11% of total) and there were no fatalities associated with the crashes in the corridor.

There were 82 crashes that occurred on Pine Street between Kilburn Street and Main Street, which represents about 30% of all the crashes in the corridor (including crashes that occurred on the intersecting side streets at or near Pine Street). The locations of these crashes are shown on Figure 6-5. There were 29 total crashes at the three intersections along Pine Street in the Maple and King Street Neighborhood (Maple Street, King Street, and Main Street). The intersection of Pine Street and Maple Street had the most crashes in this area (14 over the five-year period). These intersection crashes were predominately rear-end, broadside and sideswipe crashes. These crash types are often associated with congested intersection operations such as what occurs at Pine Street and Maple Street.

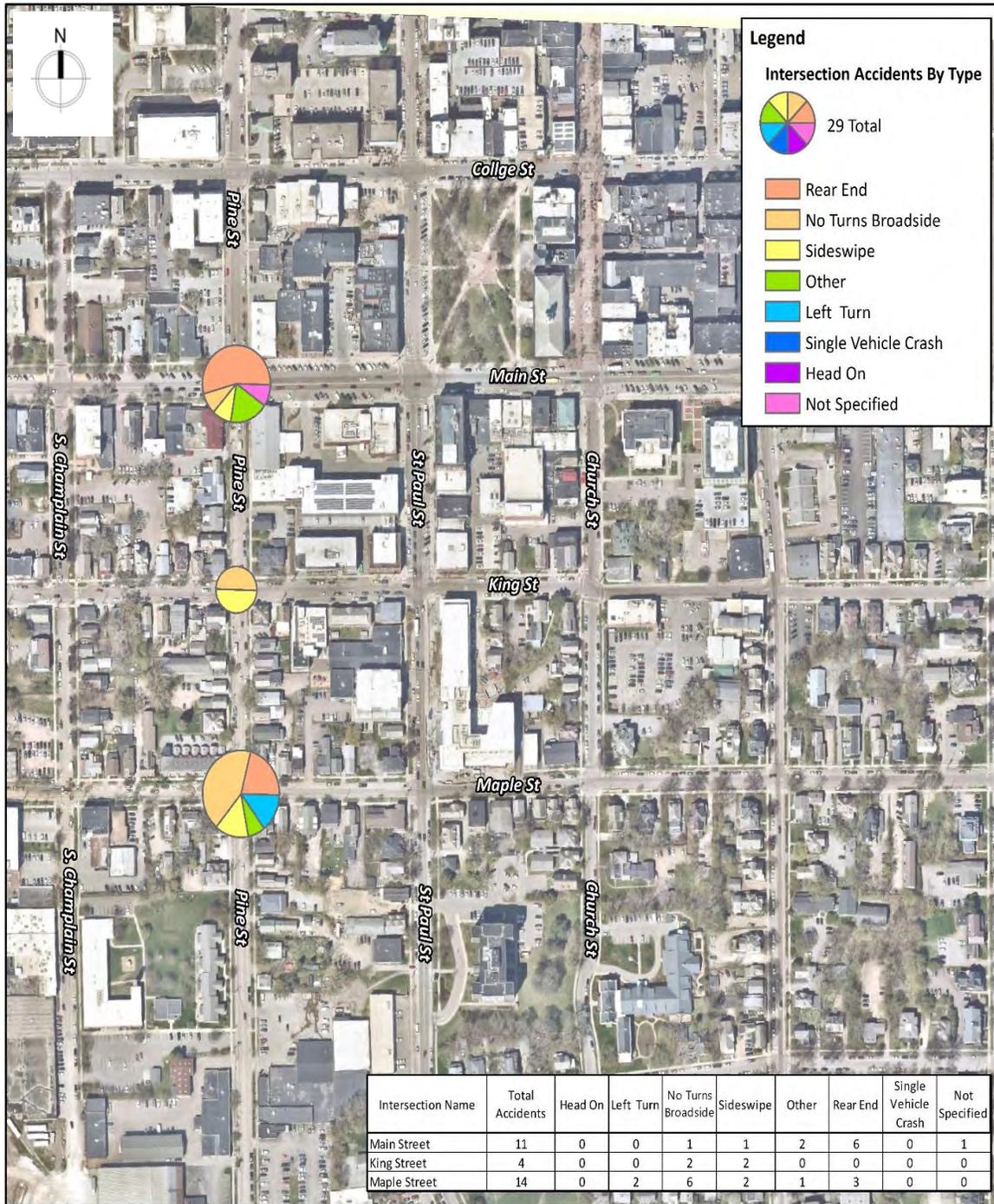
Figure 6-6 shows the intersection crash history and the distribution of crashes by type at each location.

Figure 6-5: Project Study Area Crashes (Five-year period)



source: <http://apps.vtrans.vermont.gov/CrashPublicQueryTool/>; January 17, 2020 query

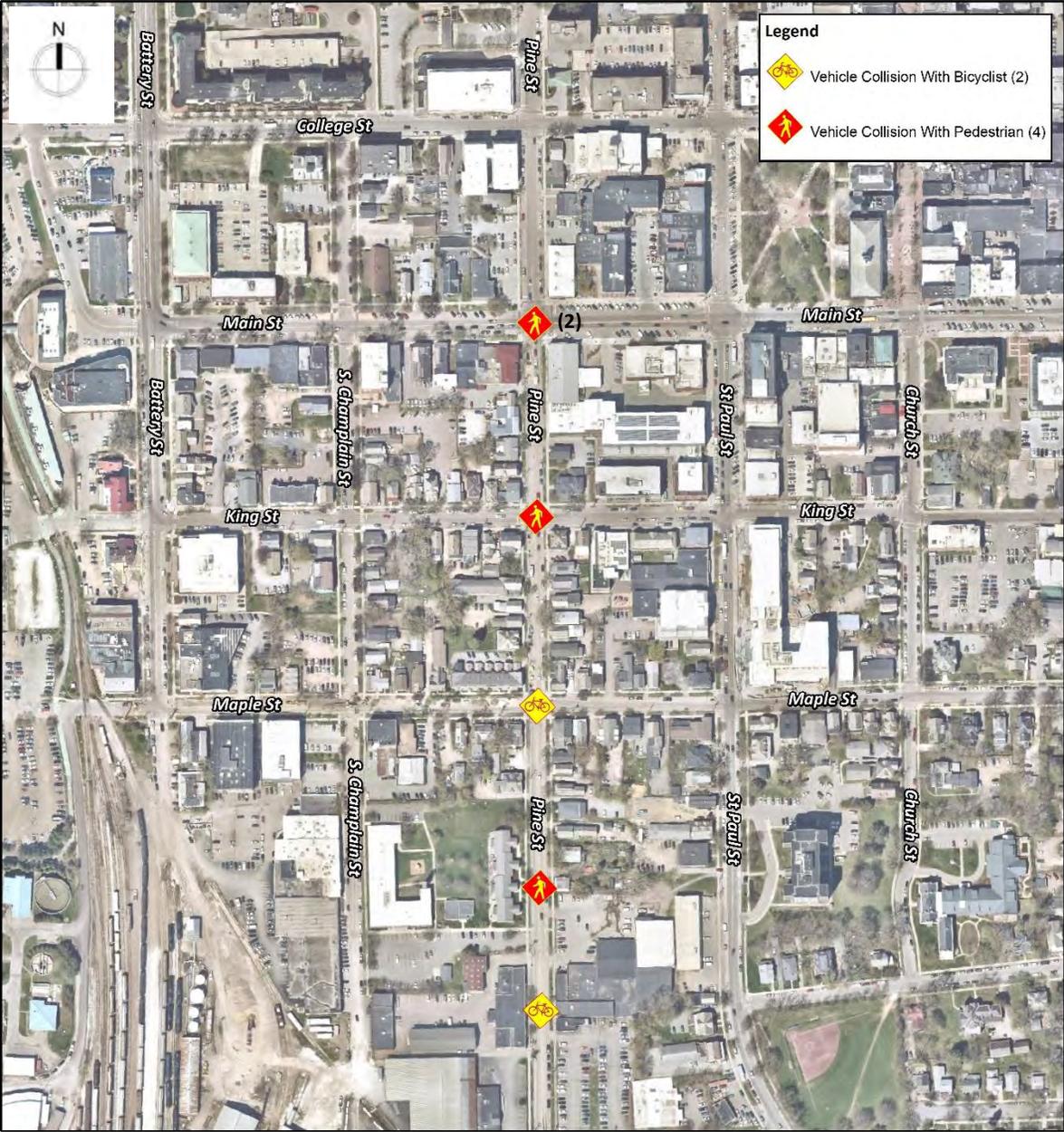
Figure 6-6: Intersection Crashes



source: <http://apps.vtrans.vermont.gov/CrashPublicQueryTool/>; January 17, 2020 query

There was a total of fourteen crashes involving pedestrians or bicyclists over the five-year period throughout the Pine Street corridor. Six of these occurred on Pine Street in the Maple and King Street Neighborhood (four pedestrian and two bicyclist). This is more than what had been identified in the previous studies for the Project. The locations of these crashes are shown in Figure 6-7.

Figure 6-7: Pedestrian/Bicyclist Crashes (Five-year period)



source: <http://apps.vtrans.vermont.gov/CrashPublicQueryTool/>; January 17, 2020 query

Given the low number of reported incidents involving pedestrians or cyclists, it is not possible to identify HCL for these travel modes or to identify any patterns. The City has been making interim investments in the corridor to improve pedestrian and bicycle safety including upgrading crosswalks at intersections and midblock locations, installing Rectangular Rapid Flashing Begins (RRFBs), and signing/markings enhancements.

#### **6.4 Air Quality**

A detailed description of the Project's air quality environment was provided in the 2009 FSEIS and remains valid. The State of Vermont is categorized as an attainment area for all the United States Environmental Protection Agency (EPA) criteria pollutants (total suspended particulates, carbon monoxide, sulfur dioxide, nitrogen oxides, ozone and lead). This categorization has not changed since the 2009 FSEIS.

#### **6.5 Noise Environment**

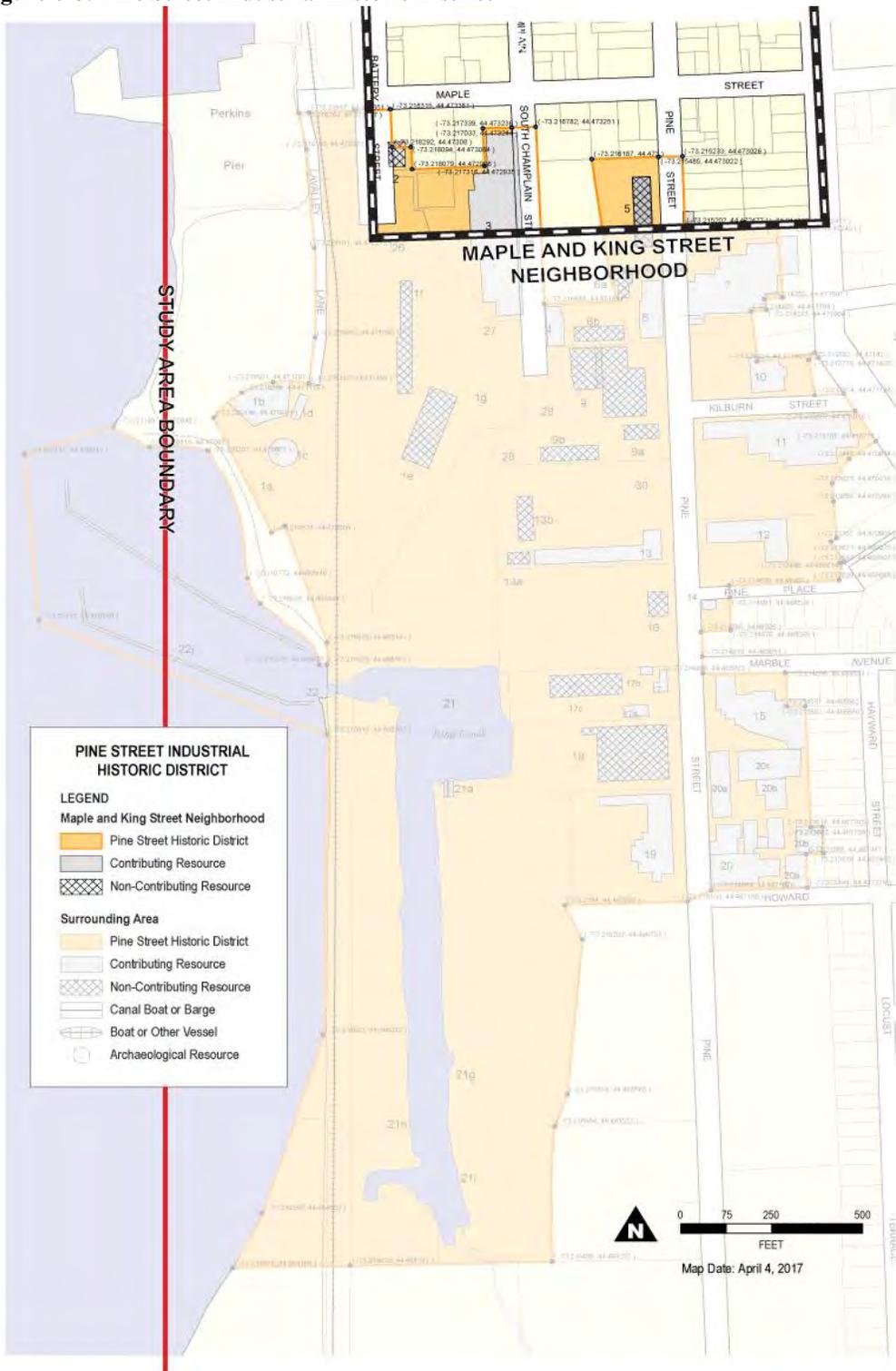
The 2009 FSEIS characterized the existing noise environment in the Maple and King Street Neighborhood. This characterization of the existing noise conditions remains valid and no further detail is necessary.

#### **6.6 Historic and Archaeological Resources**

A detailed description of the Project's historic and archaeological resources was provided in the 2009 FSEIS. The Project's historic and archaeological resources as stated in the 2009 FSEIS remain valid. The Maple and King Street Neighborhood bisects the Battery Street Historic District as described in the 2009 FSEIS.

The 2009 FSEIS identified the Pine Street Historic District as a National Register Eligible Historic District. Subsequent to the 2009 FSEIS, the City nominated the Pine Street Historic District (now named Pine Street Industrial Historic District) (See Figure 6-8 below) for the National Register of Historic Places. On October 16, 2017, the United States Department of the Interior listed the Pine Street Industrial Historic District on the National Register of Historic Places. This district is located on Pine Street from Maple Street to the foot of the Pine Street Barge Canal, including parts of South Champlain Street, Battery Street, Kilburn Street, Marble Avenue, Pine Place and the shore of Lake Champlain. The historic district borders but does not overlap with the Maple and King Street Neighborhood. This information is only being provided to note this change from "Eligible" to "Listed".

Figure 6-8: Pine Street Industrial Historic District



## **7. ENVIRONMENTAL CONSEQUENCES AND MITIGATION**

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### **7.1 Introduction**

This chapter includes assessments of traffic impacts, work zone/construction impacts and any impacts on the safety performance of the roadway segments and intersections in the Maple and King Street Neighborhood. If any disproportionately high and adverse effects on environmental justice communities are identified, FHWA may require the local project sponsor to implement additional environmental mitigation measures to avoid, minimize and mitigate the impacts as a condition of the project's NEPA approval.

### **7.2 Land Use and Socioeconomics**

#### **7.2.1 Existing Neighborhoods**

The Maple and King Street Neighborhood, which is located along Pine Street for approximately 800 feet immediately south of the intersection of Pine Street and Main Street, is at the northern end of the Project.

The neighborhood is in a downtown transitional area consisting predominately of medium density multi-family residential homes, bordered by the CCD to the north and limited commercial/industrial and mixed-use buildings to the south. There is a continuous sidewalk, in need of repair, and a green strip along both sides of Pine Street with overhead utility poles and wires on the western side of Pine Street.

As described in Chapter 4, an EJ analysis was completed within the Project study area. Although none of the Project study area census tracts meet the criteria for low-income populations, Census Tract 10 was identified as a minority population given the substantially higher percentage of minority residents than the City or county. The residential portion of this census tract that is within the Project study area comprises much of the Maple and King Street Neighborhood.

In more recent (2018) U.S. Census data made available in December 2019, the percentage of minority residents in the Maple and King Street Neighborhood is only marginally higher than the citywide average. However, given the meaningfully greater percentage of minority residents there in prior, yet still recent, census data, combined with local knowledge and the results of outreach/engagement effort, it has been determined that the Maple and King Street Neighborhood is a minority population and will require an EJ analysis.

Due to the nature of the work in the project areas, there will be no adverse effects to land use or socioeconomics to the Maple and King Street Neighborhood.

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**LEGEND**

-  SIDEWALK
-  SHARED USE PATH
-  PROPOSED ROADWAY

**PROPOSED CONDITION**



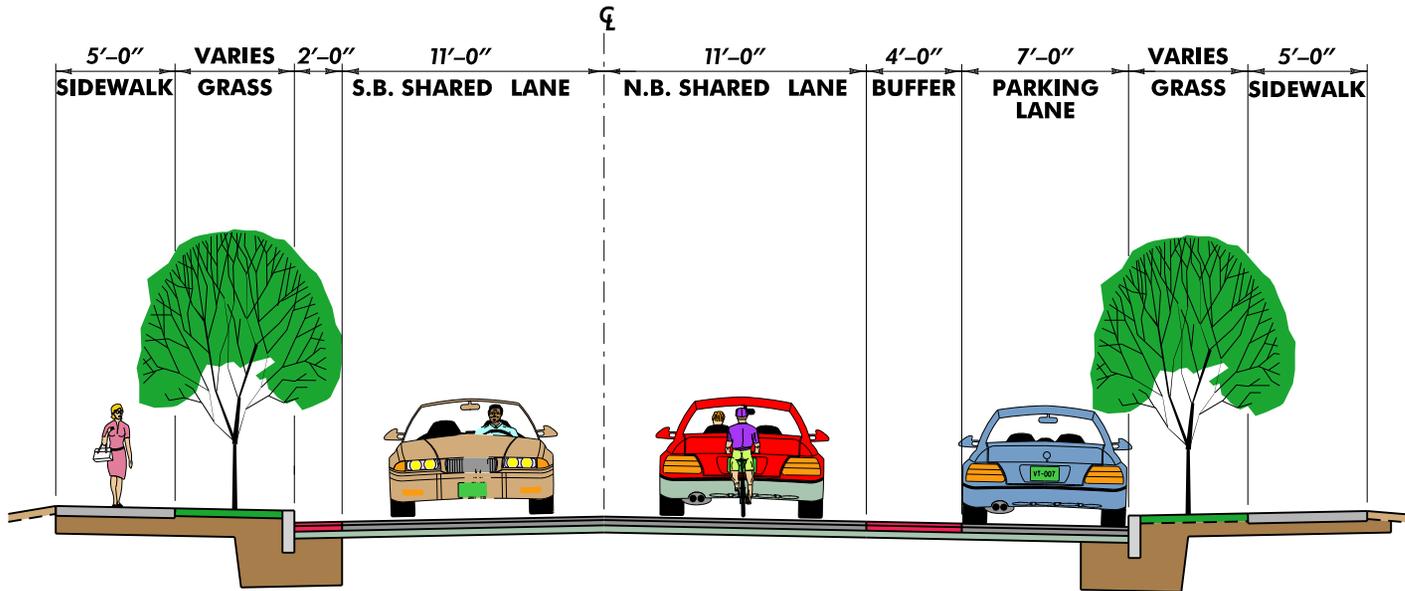
**Southern Connector/  
 Champlain Parkway  
 MEGC-M5000(1)**

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**FIGURE 7-1  
 MAPLE-KING NEIGHBORHOOD**



**PROPOSED TYPICAL SECTION  
PINE STREET  
MAPLE STREET TO KING STREET**

**Southern Connector/  
Champlain Parkway  
MEGC-M5000(1)**



FIGURE 7-2

Page 7-3

### 7.3 Transportation Systems Impacts

The Project will expand and improve the transportation network available for the movement of people and goods to/from and within the City. The street network in the Maple and King Street Neighborhood is characterized by a dense urban grid of two-way streets with a typical block spacing of about 400 feet. Most of the streets in this grid (including Pine Street, Maple Street and King Street) are two-lane roads. The Project will not change the street grid in the Maple and King Street Neighborhood nor change the functional roles of these streets in this area. There will also not be any roadway widening as part of the Project other than minor adjustments to reset curb lines to provide a uniform pavement width along Pine Street. The Project will include changes in traffic control at two intersections from All-Way Stop Control (AWSC) to traffic signal control: at the Pine/Maple intersection and at the Pine/King intersection (See Figure 7-3). This change will improve traffic flow and intersection level of service along Pine Street. See discussion below for more detailed information about traffic operations in the Maple and King Street Neighborhood.

Figure 7-3: Intersection Control Changes



The design process for the Project considered a variety of intersection configurations and control strategies for the intersections of the Pine Street/Maple Street and Pine Street/King Street intersections, including a roundabout option. In this process, it was identified that a

standard single-lane roundabout designed to accommodate the design vehicle is not feasible to be constructed at either of these two intersections because of the physical constraints and impacts to the existing built environment around the intersection. Smaller variations of a roundabout, such as a mini-roundabout or neighborhood traffic circle were also considered, but these smaller configurations are not intended or advised for use on arterial roadways such as Pine Street. Trucks and buses would not be able to follow the same circular traffic pattern as cars which would reduce the performance and safety of the intersection. These smaller versions of roundabouts in the context of this corridor also present mobility and safety issues for pedestrians and bicyclists that are better addressed by signal control. Although they might be able to fit physically in the intersection area, the mini-roundabout and neighborhood traffic circle options are not recommended for the intersections of Pine Street/Maple Street or Pine Street/King Street because of these issues related to the arterial function of Pine Street, intersection volumes, truck/bus accommodation, traffic performance, vehicle safety and pedestrian/bicyclist safety.

### **7.3.1 Traffic Volumes**

Traffic moving along Pine Street is already coming from the interstate system and other commuter routes to the Maple and King Street Neighborhood. Currently this traffic is filtering through the residential street network to access the Pine Street arterial corridor and then to continue to the CCD. Pine Street is, and will continue to be, functionally classified as an arterial and the traffic volumes and patterns on this street are consistent with that transportation function and purpose. This arterial function is also consistent with the City's Transportation Plan and the Regional Transportation Plan. The Project will provide a transition from the primary regional roadways of I-189 and U.S. Route 7 (Shelburne Street) to Pine Street which will help to divert commuter and through traffic away from the local residential streets.

There is projected to be an increase in traffic on the northern portion of Pine Street from Lakeside Avenue to Main Street associated with improved accessibility to the CCD achieved by the Project. The Maple and King Street Neighborhood is located within this northern portion of the Project corridor. Daily traffic volumes on the section of Pine Street between Lakeside Avenue and Maple Street are estimated to increase by approximately 1,400 vehicles per day (vpd) (a 9% increase) because of the Project. During the peak hours, traffic on this section is estimated to increase by 260 vehicles (20%) in the AM peak hour and 235 vehicles (16%) in the PM peak hour in the ETC design horizon. This is the amount of additional two-way traffic estimated to impact the Maple Street and King Street neighborhood area of the Project.

The Project includes a change in traffic control at the Maple Street/Pine Street intersection and at the King Street/Pine Street intersection from AWSC to signal control. The traffic signal control is intended to serve several purposes:

- address existing and future traffic congestion
- accommodate the traffic increase associated with the Project
- promote progressive traffic flow on Pine Street with coordinated signals to reduce use of Maple Street and King Street as short-cuts to the CCD.
- improve pedestrian safety

The change in traffic control at these two intersections will affect the traffic volumes in the Maple and King Street Neighborhood by redistributing the traffic flow. Specifically, it will reduce the high volumes of turning traffic at the Maple Street/Pine Street intersection and redistribute this traffic to the Pine Street/King Street and Pine Street/Main Street intersections.

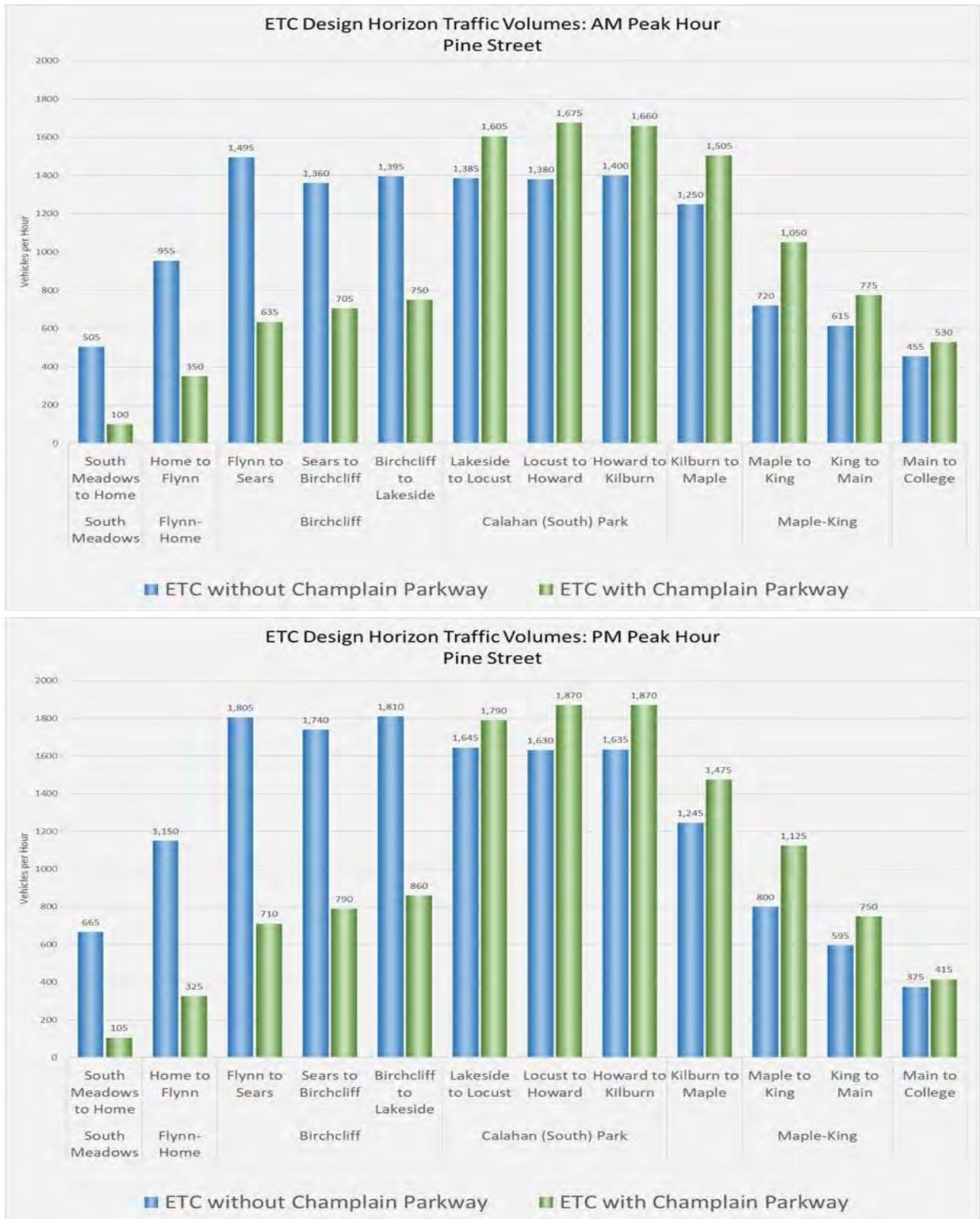
As was reported in the 2009 FSEIS, this redistribution of traffic will result in higher traffic volumes on Pine Street between Maple Street and Main Street under the Selected Alternative (Build condition) than in the No-Build condition. The ETC and ETC+20 traffic volumes along Pine Street during the AM and PM peak hours are shown without the Champlain Parkway (No-Build condition) and with the Selected Alternative for the Champlain Parkway (Build condition) in Figure 7-4 and Figure 7-5.

As shown in these Figures, while the traffic volumes on Pine Street in the one block between Maple Street and King Street will be higher than existing, they will be lower than the adjacent segments of Pine Street from Lakeside Avenue to Maple Street. The traffic volumes on Pine Street on the block between King Street and Main Street will be comparable to the volumes on Pine Street between Flynn Avenue and Lakeside Avenue.

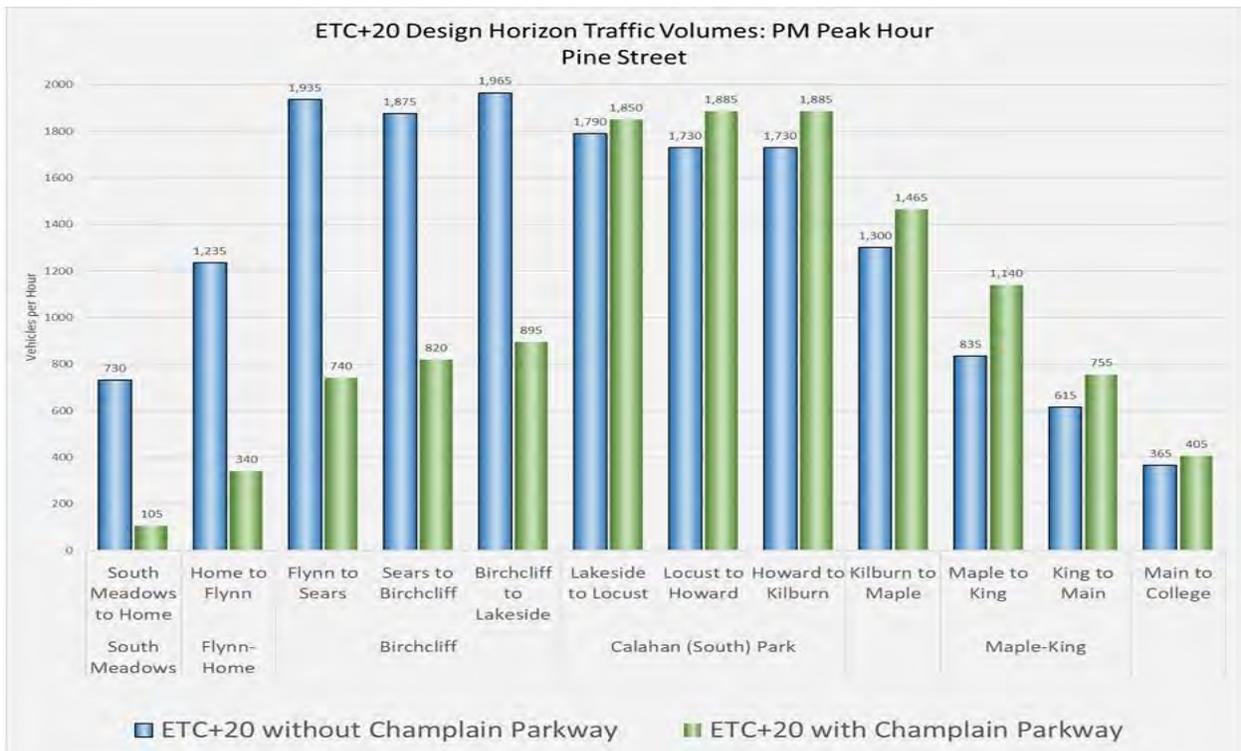
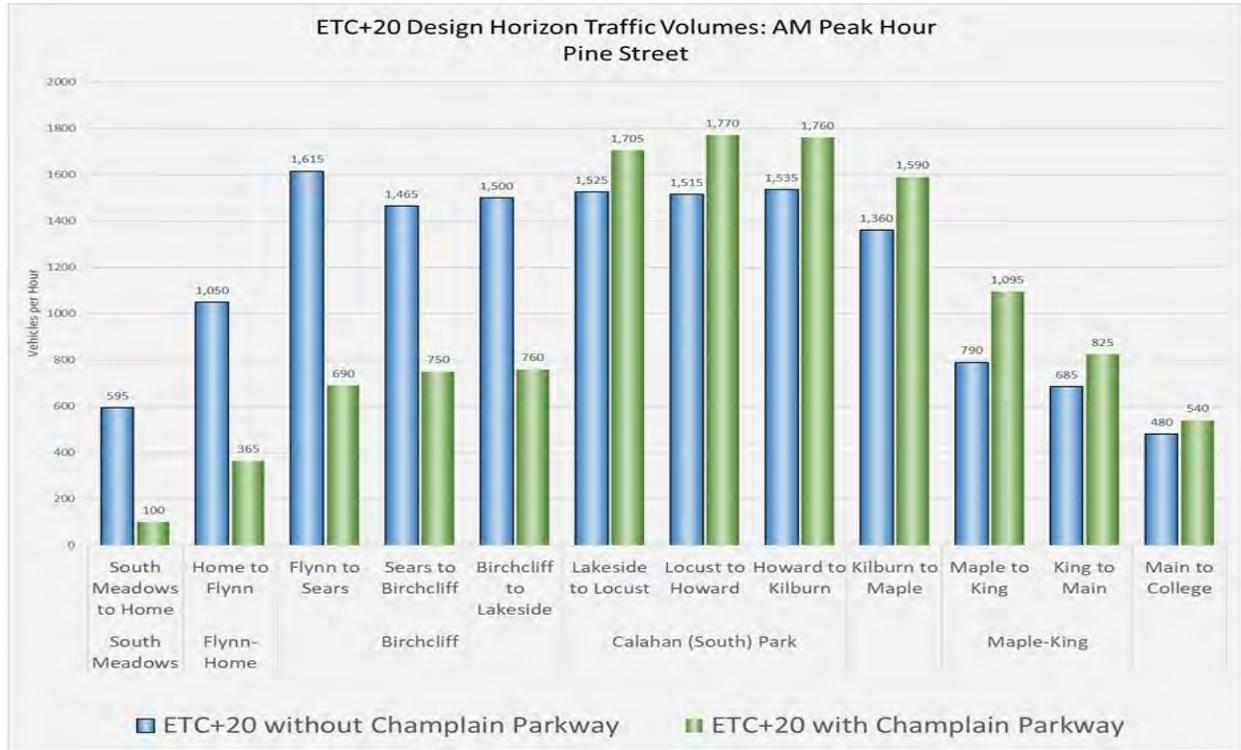
Traffic volumes on the sections of Maple Street and King Street, between Battery Street and Pine Street, will also be affected by the Project. This impact is primarily associated with the change from AWSC to signal control at the Maple Street/Pine Street and King Street/Pine Street intersections. As noted previously, this change in control will induce a redistribution of traffic using Maple Street and King Street which will balance the traffic on these two parallel streets. The traffic volumes on the section of Maple Street and King Street between Pine Street and St. Paul Street will not change significantly from the No-Build condition. The peak hour volumes on this segment will vary by 20 or fewer vehicles on either street from the No-Build condition.

The ETC and ETC+20 traffic volumes along Maple Street and King Street during the AM and PM peak hours are shown without the Champlain Parkway (No-Build Condition) and with the Champlain Parkway (Build) in Figure 7-6 and Figure 7-7.

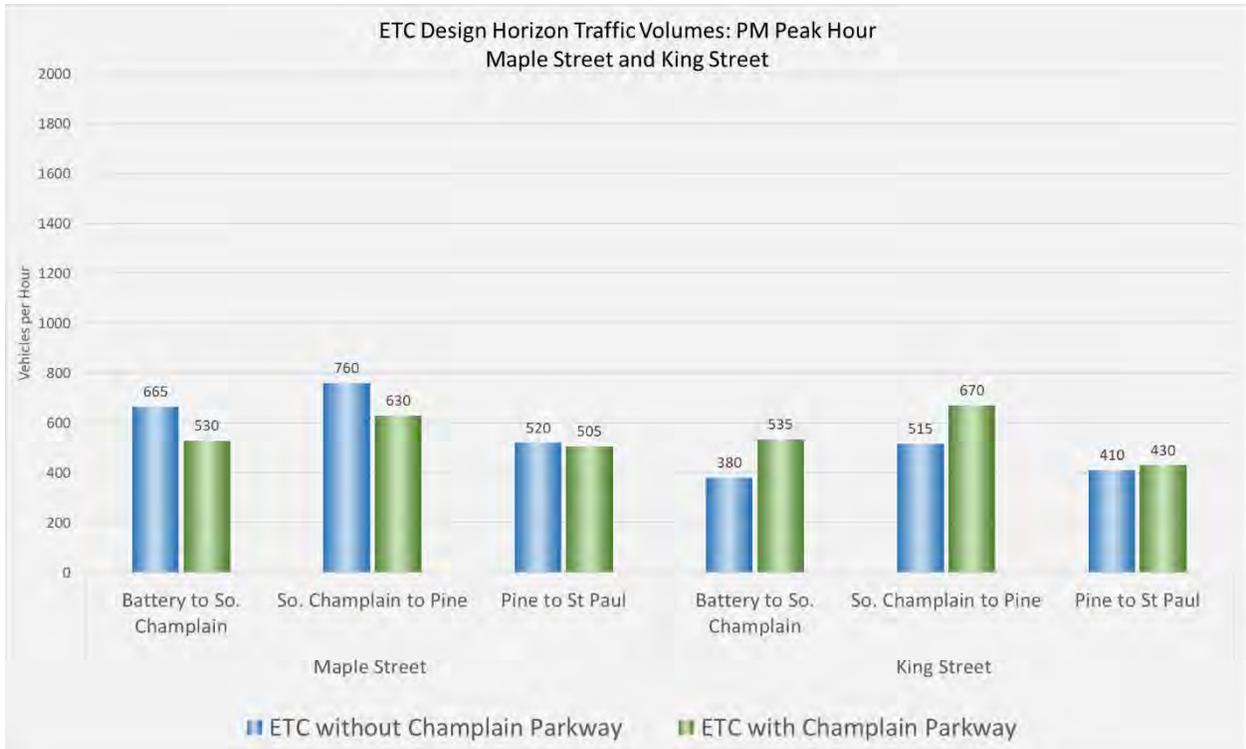
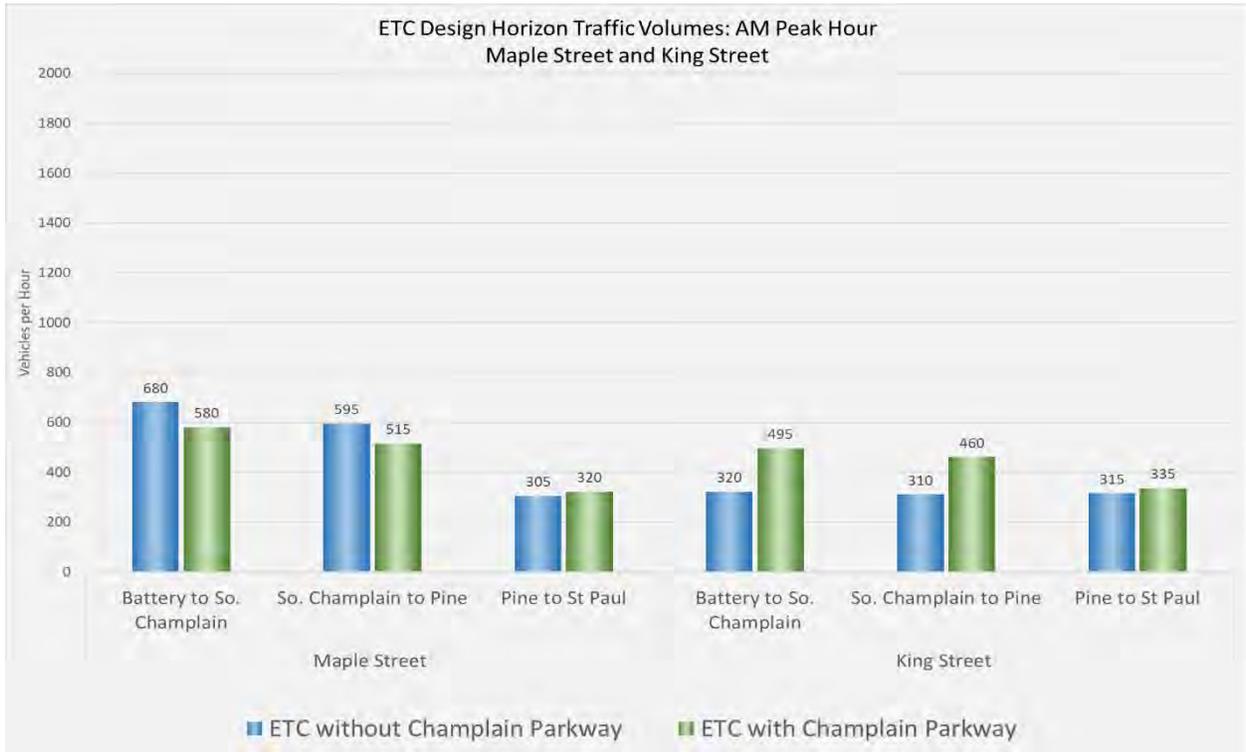
**Figure 7-4: ETC Design Horizon Traffic Volumes - Pine Street**



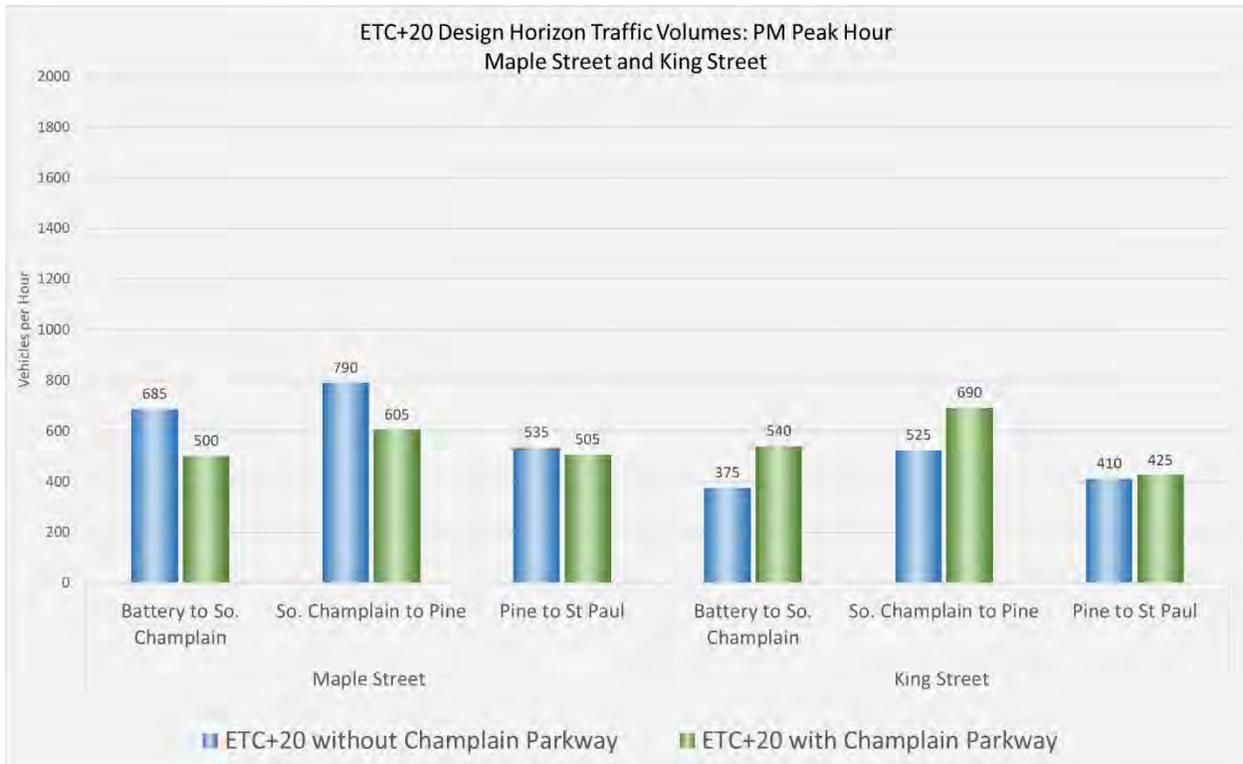
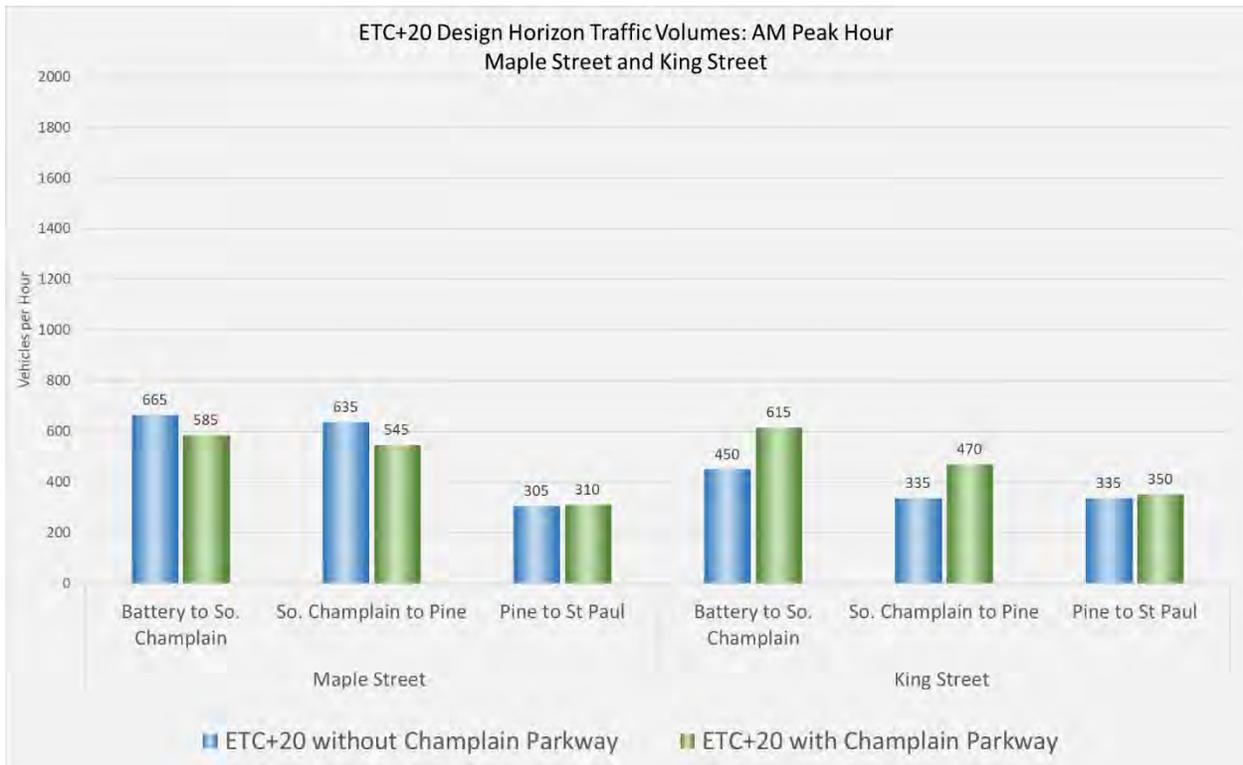
**Figure 7-5: ETC+20 Design Horizon Traffic Volumes - Pine Street**



**Figure 7-6: ETC Design Horizon Traffic Volumes – Maple Street/King Street**

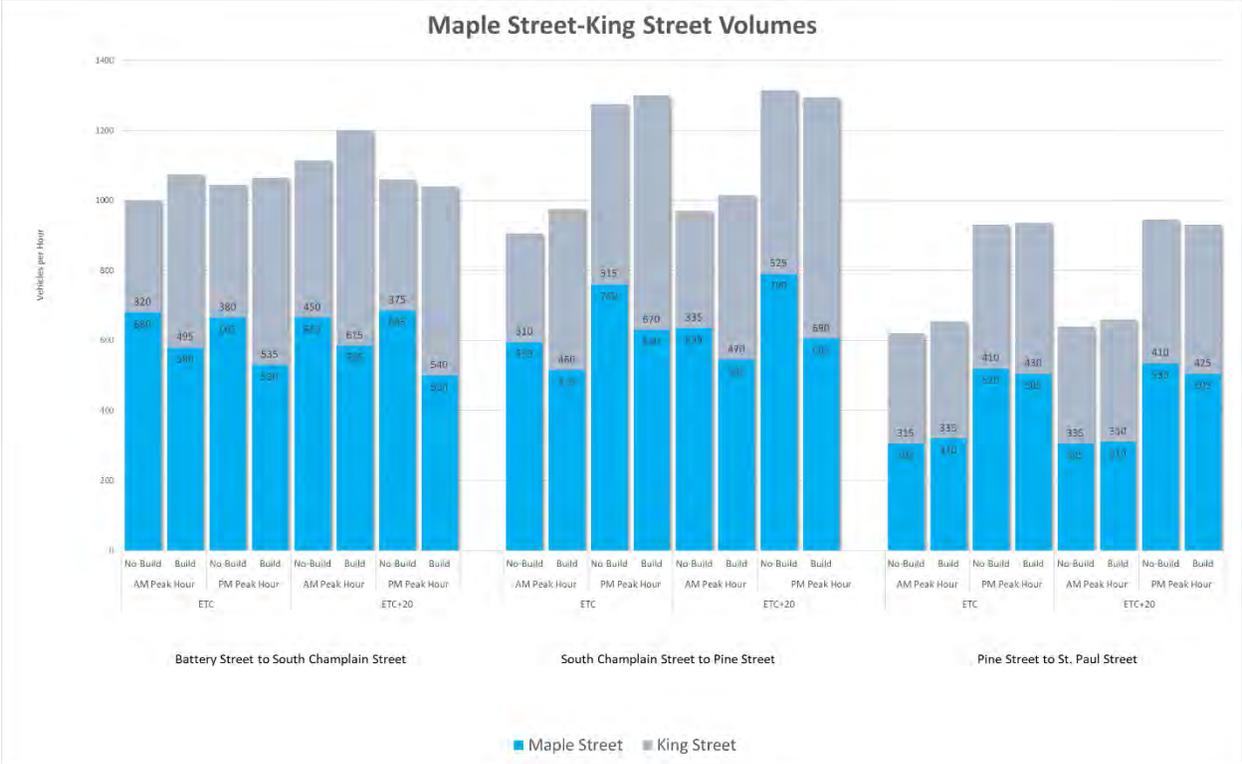


**Figure 7-7: ETC+20 Design Horizon Traffic Volumes - Maple Street/King Street**



Although traffic using Maple Street and King Street in the two-block section between Battery Street and Pine Street will change because of the signal control, the total combined volume of traffic on these two streets will not change much as a result of the Project. Figure 7-8 below provides a comparison of the combined volumes using these streets during the AM and PM peak hours in the No-Build and Build conditions for the ETC and ETC+20 design horizon years and shows the shift in volume between the two streets associated with the change to signal control.

**Figure 7-8: Maple Street/King Street Aggregate Volume**



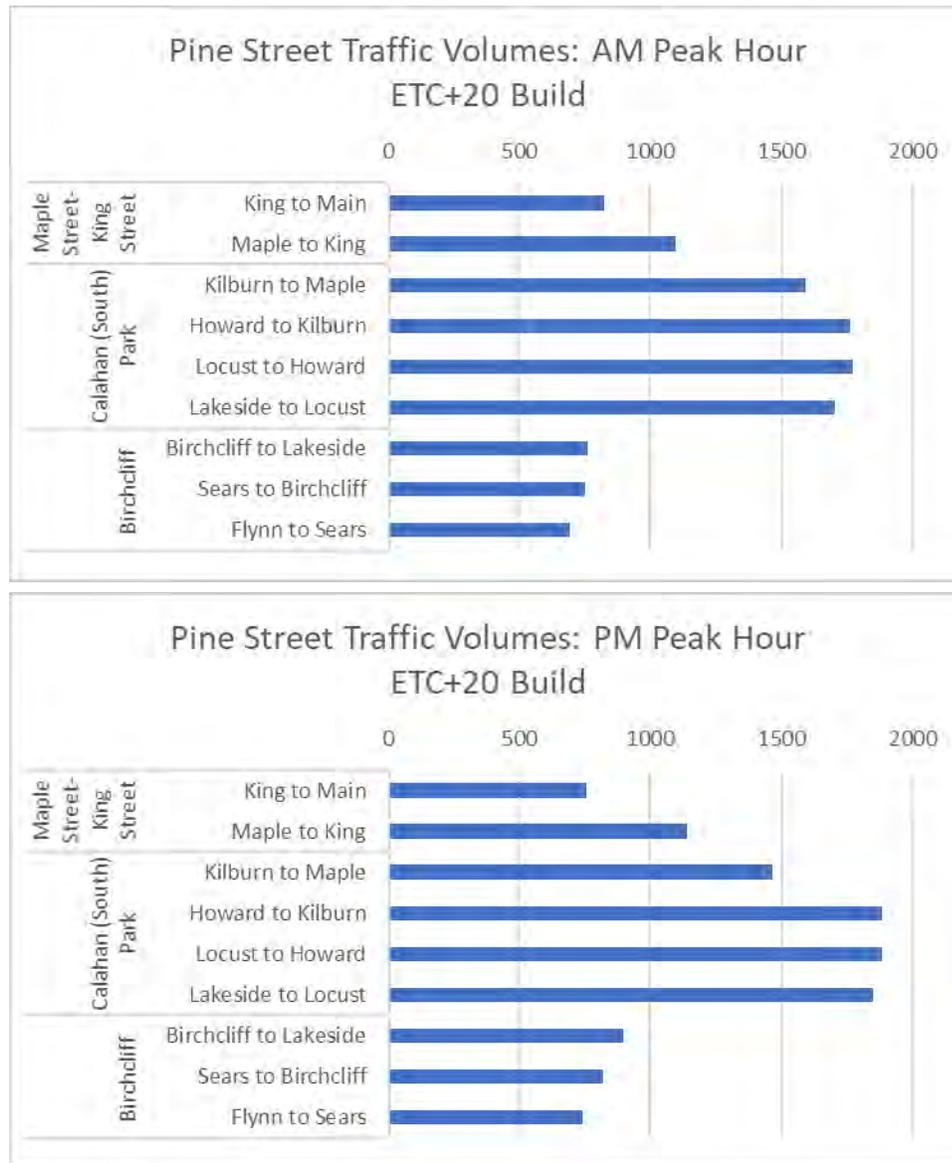
As illustrated on Figure 7-8, the overall combined volumes on these two streets will be generally the same in the Build condition as in the No-Build condition for both ETC and ETC+20. The highest combined change in volume on these streets occurs during the AM peak hour with an increase of 75-85 vehicles (40+/- additional vehicles on each street). The change during the PM peak hour is less, with an increase of only 20-25 vehicles (10-15 additional vehicles on each street). This amount of new traffic on Maple Street and King Street is not considered to be significant.

In summary, the Project will increase traffic volume in the Maple and King Street Neighborhood. This increase is associated with traffic drawn to the corridor by the construction of the Champlain Parkway section of the Project and secondarily by changes in traffic circulation within the Maple and King Street Neighborhood associated with the signalization of these intersections. Pine Street is an urban arterial on the National Highway

System and is intended to carry higher volumes of through traffic. Although an increase from the No-Build condition, the volumes on Pine Street between Maple Street and Main Street will be comparable to the volumes on other segments of Pine Street, and consistent with the arterial function of the road. While the traffic volumes on King Street will increase, there will be a corresponding decrease in volume on Maple Street. The adverse effects of these changes in traffic volume are not considered to be significant or disproportionate. Furthermore, considerations of the improvements in traffic operations and safety improvements discussed in the following sections of this report will also have a mitigative effect on the increased volume.

Traffic volumes on Pine Street in the Maple Street-King Street neighborhood were compared to the volumes in other neighborhoods of the Project. Traffic volumes on Pine Street between Maple Street and Main Street will increase as a result of the Project. Traffic volumes will also similarly increase on Pine Street from Lakeside Avenue to Maple Avenue. The future peak hour volumes on the segment of Pine Street from Maple Street to King Street will be 20-30% lower than the volumes on the adjacent segment from Kilburn Street to Maple Street, and as much as 40% lower than the segment between Lakeside Avenue and Kilburn Street. The volume of traffic on the segment of Pine Street from King Street to Main will be lower than the Maple-to-King segment, and these volumes will be comparable to the future traffic volumes on the segment of Pine Street in the Birchcliff Parkway neighborhood (between Flynn Avenue and Lakeside Avenue) with the traffic diversions from this part of Pine Street to the Champlain Parkway. The volumes on Pine Street in each neighborhood section are shown in Figure 7-9 for the AM and PM peak hours in the ETC+20 Build condition.

**Figure 7-9: Pine Street Volumes – Neighborhood Comparison**



### 7.3.2 Mobility

Traffic congestion exists at the intersection of Pine Street and Maple Street during peak hours with the current AWSC. The existing LOS F conditions during peak hours produce long traffic delays and vehicle queues. The projected conditions in the ETC+20 design horizon shows that these congestion levels will worsen significantly without the Project.

The analysis of the future operations without the Project shows that traffic demand will significantly exceed the capacity of the AWSC during peak hours. The average traffic delay of all traffic moving through the intersection in the ETC+20 No-Build condition will be 124 seconds/vehicle during the AM peak hour and 200 seconds/vehicle during the PM peak

hour. The queues associated with this congestion spill over to adjacent intersections (such as to the Pine Street/King Street intersection), which then increases congestion there, too. The vehicle queue lengths at the intersection of Maple Street and Pine Street in the ETC and ETC+20 No-Build conditions are as follows in Table 7-1:

**Table 7-1: Pine Street and Maple Street Queues – No-Build Condition**

Intersection	Approach	Vehicle Queues (feet)			
		ETC No-Build		ETC+20 No-Build	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Pine Street & Maple Street	NB	675	875	775	1025
	SB	200	625	300	650
	EB	225	275	375	325
	WB	75	175	100	200

The Project will replace the AWSC at the Pine Street/Maple Street and Pine Street/King Street intersections with traffic signals. Although the Pine Street/King Street intersection would continue to operate acceptably in the ETC+20 Build condition with the AWSC, this intersection will be signalized so that the three intersections on Pine Street (Pine Street/Maple Street, Pine Street/King Street and Pine Street/Main Street) can work in coordination due to the short (400 ft) block spacing.

The analyses of traffic operations of these three Project intersections for the Build condition were updated using the current version of the Synchro analysis software (version 10) to reflect design refinements that have been incorporated into the Project subsequent to the 2009 FSEIS (such as the traffic calming curb extensions) and the City’s reduction of the citywide statutory speed limit in 2011 from 30 mph to 25 mph.

With signal control, these three intersections will operate acceptably with overall delays that are typical of urban design conditions (LOS D or better). The levels of service results from the updated analyses are also consistent with the analyses presented in the 2009 FSEIS. Table 7-2 below provides a comparison of the LOS analysis for the ETC+20

No-Build and Build conditions. Table 7-3 provides a comparison of the LOS results for the ETC+20 Build conditions from the 2009 FSEIS and the updated current analyses.

**Table 7-2: LOS Comparison - ETC+20 Conditions**

Intersection	Street	Approach	ETC+20 No-Build		ETC+20 Build					
			Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday AM Peak Hour	Weekday PM Peak Hour				
			LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)		
Pine Street & Maple Street	Pine Street	NB	F	230.7	F	348.1	C	24.9	D	45.1
		SB	F	66.8	F	207.5	B	18.6	B	16.6
	Maple Street	EB	F	79.2	F	71.9	E	59.9	E	60.9
		WB	C	23.6	E	43.6	D	51.9	F	80.3
<b>Overall Intersection</b>			<b>F</b>	<b>124.1</b>	<b>F</b>	<b>200.7</b>	<b>C</b>	<b>32.6</b>	<b>D</b>	<b>45.0</b>
Pine Street & King Street	Pine Street	NB	D	25.1	D	31.1	A	9.8	B	13.6
		SB	C	17.1	D	26.0	A	9.4	B	13.9
	King Street	EB	B	14.4	D	25.5	D	47.1	D	49.9
		WB	B	13.3	C	19.6	C	29.6	D	41.0
<b>Overall Intersection</b>			<b>C</b>	<b>19.1</b>	<b>D</b>	<b>26.1</b>	<b>C</b>	<b>20.3</b>	<b>C</b>	<b>26.1</b>
Pine Street & Main Street	Pine Street	NB	C	22.0	B	14.9	C	29.0	B	17.6
		SB	B	11.3	B	13.4	B	19.0	B	13.5
	Main Street	EB	C	24.3	B	12.9	D	44.7	D	46.8
		WB	B	16.6	B	13.9	C	23.8	D	35.5
<b>Overall Intersection</b>			<b>B</b>	<b>19.3</b>	<b>B</b>	<b>13.8</b>	<b>C</b>	<b>30.9</b>	<b>C</b>	<b>29.2</b>

**Table 7-3: LOS Comparison - 2009 FSEIS and Updated Analysis**

Intersection	Street	Approach	ETC+20 Build (2009 FSEIS)				ETC+20 Build (Current Analysis)			
			Weekday AM Peak Hour		Weekday PM Peak Hour		Weekday AM Peak Hour		Weekday PM Peak Hour	
			LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
Pine Street & Maple Street	Pine Street	NB	C	23.0	D	44.9	C	24.9	D	45.1
		SB	B	16.7	C	22.5	B	18.6	B	16.6
	Maple Street	EB	E	56.9	D	51.6	E	59.9	E	60.9
		WB	E	74.6	F	87.3	D	51.9	F	80.3
<b>Overall Intersection</b>			<b>C</b>	<b>33.2</b>	<b>D</b>	<b>45.6</b>	<b>C</b>	<b>32.6</b>	<b>D</b>	<b>45.0</b>
Pine Street & King Street	Pine Street	NB	A	3.1	A	5.5	A	9.8	B	13.6
		SB	A	6.5	A	8.2	A	9.4	B	13.9
	King Street	EB	D	45.0	D	52.0	D	47.1	D	49.9
		WB	D	45.5	F	95.2	C	29.6	D	41.0
<b>Overall Intersection</b>			<b>B</b>	<b>18.4</b>	<b>C</b>	<b>30.8</b>	<b>C</b>	<b>20.3</b>	<b>C</b>	<b>26.1</b>
Pine Street & Main Street	Pine Street	NB	C	26.9	B	16.8	C	29.0	B	17.6
		SB	B	18.4	B	19.4	B	19.0	B	13.5
	Main Street	EB	C	27.4	C	30.6	D	44.7	D	46.8
		WB	B	18.6	C	33.9	C	23.8	D	35.5
<b>Overall Intersection</b>			<b>C</b>	<b>23.7</b>	<b>C</b>	<b>25.5</b>	<b>C</b>	<b>30.9</b>	<b>C</b>	<b>29.2</b>

The average delay at the Pine Street and Maple Street intersection in the ETC+20 condition will decrease from 124 sec/veh (No-Build condition) to 33 sec/veh (Build condition) in the AM peak hour, and from 200 seconds/vehicle (No-Build condition) to 45 seconds/vehicle (Build condition) in the PM peak hour.

The average delay per vehicle at Pine Street and King Street intersection will remain at about the same levels in the Build condition as in the No-Build condition even with the shifts in traffic on Pine Street associated with the Project. It is noted that the LOS designation for the PM peak hour changes from LOS D to LOS C even though the amount of overall delay is the same. This is because of the different LOS delay thresholds associated with unsignalized and signalized intersections (see Table 6-1 in 6.3.2 ).

The LOS changes at the Pine Street and Main Street intersection between No-Build and Build conditions are similarly associated with the shifts in traffic flow along Pine Street and are consistent with the operations presented in the 2009 FSEIS. The Build condition operations at all intersections are consistent with the purpose and need of the Project.

Vehicle queues will also be generally improved as a result of the traffic signal control and coordination. Table 7-4 compares the No-Build and Build queues at the Pine Street and Maple Street intersection for the ETC+20 conditions are:

**Table 7-4: Vehicle Queues**

		ETC+20 No-Build (All-Way Stop control)		ETC+20 Build (Signal control)			
		AM Peak Hour	PM Peak Hour	AM Peak Hour		PM Peak Hour	
		95th %tile Queue (feet)	95th %tile Queue (feet)	50th %tile Queue (feet)	95th %tile Queue (feet)	50th %tile Queue (feet)	95th %tile Queue (feet)
Intersection	Approach						
Pine Street & Maple Street	NB	775	1025	247	644	316	747
	SB	300	650	310	555	192	497
	EB	375	325	216	387	246	435
	WB	100	200	111	235	159	321

*(note: 50<sup>th</sup> percentile queues are not calculated for All-Way Stop controlled intersections per the HCM analysis methodologies)*

The average queues during peak hours will be accommodated within the existing block spacing between adjacent intersections. 95<sup>th</sup> percentile design queues will be longer and may cause periodic additional delay at adjacent intersections, but the Pine Street queues will still be less than would occur without the Project’s improvements. It is noted however, that the 95<sup>th</sup> percentile queues along Maple Street will generally be longer than in the No-Build condition. This is because of the priority given in the signal timing to favor Pine Street traffic movement consistent with the arterial function of this roadway.

One of the characteristics of the current AWSC is that it does not differentiate between the functional roles of the intersecting streets and therefore cannot assign priority to Pine Street which is an arterial roadway whose primary function is traffic mobility, and which is also intended to carry more traffic than other area streets such as Maple Street or King Street. The process of right-of-way transfer between pedestrians at the crosswalks and vehicle traffic is also less efficient with the AWSC operations under higher volume conditions such as exist because of added decision time used by pedestrians to confirm that it is safe to cross and then for drivers to reestablish who goes next when there is vehicle demand on more than one approach following the pedestrian crossing. This process of right-of-way assignment also induces through traffic to divert to Maple Street and King Street rather than continuing along Pine Street to access the CCD.

The Project will improve traffic mobility along Pine Street in the Maple Street and King Street area of the Project by signaling the Pine Street/Maple Street and Pine Street/King Street intersections and coordinating the operations of these two intersections with the existing signal at the intersection of Pine Street and Main Street. This improvement will promote smoother traffic flow along Pine Street by reducing vehicle delays and reducing the length of queues. The signals will also provide safer crossing opportunities for pedestrians by providing an exclusive pedestrian phase where all vehicles are stopped.

The signal operations will also promote a more stable and uniform travel speed through the corridor, as the signals will be timed to provide for coordinated movement through the three signals on Pine Street from Maple Street to Main Street at the City’s statutory speed limit of 25 mph or lower. This reduction of “stop-and-go” traffic and reduction of the time spent idling at the intersections are expected to have a corresponding reduction in traffic noise. These improvements will also reduce vehicle emissions and contribute to improved air quality in the corridor.

### 7.3.3 Traffic Safety

This section of the report presents an assessment of safety issues in the Project study area by examining the crash history and discussing how projected traffic pattern changes resulting from the Champlain Parkway may affect areas of concern within the Maple and King Street Neighborhood.

#### Vehicular Traffic Safety

As noted in 6.3.3 Traffic Safety, the section of Pine Street between Maple Street and Main Street is part of an HCL segment (Kilburn to Main). There was a total of 82 crashes in this HCL Segment over the 5-year period from January 2015 through December 2019. This number includes crashes at intersections, on the segments of Pine Street between intersections, and the crashes that occurred on the side streets near their intersection with Pine Street. This crash data is summarized in Table 7-5.

**Table 7-5: Crash Summary Table – Pine Street (Kilburn to Main)**

Crash Type	Location		Number of Crashes
Intersection Crashes	Pine Street & Main Street		11
	Pine Street & King Street		4
	Pine Street & Maple Street		14
Non-intersection (Link) Crashes	Pine Street	Main Street to Maple Street	16
		Maple Street to Kilburn Street	11
	Maple Street	Near Pine Street	5
	King Street	Near Pine Street	6
	Main Street	Near Pine Street	15
Total Crashes			82

There were 29 crashes at the three intersections of Pine Street in the Maple and King Street Neighborhood (at Main Street, King Street and Maple Street) and 16 crashes on Pine Street between these intersections. Four of these total crashes involved a pedestrian or bicyclist (two at Main Street and one each at King Street and Maple Street).

There were eleven additional crashes occurring along Pine Street south of Maple in the area between Bobbin Mill Apartments and Kilburn Street; two of these crashes involved a pedestrian or bicyclist. There were also 26 link crashes identified along Main Street, King Street and Maple Street near Pine Street. These crashes were all property damage only and more than half of these crashes (15) were on Main Street beyond the limits of the Project.

The predominant types of crashes in the Maple Street-to-Main Street segment of Pine Street were rear-end and no-turn broadside events at the Maple Street and King Street intersections with Pine Street. These two crash types accounted for about 50% of the crashes in this area. This is consistent with the pattern that was identified in the assessment of the 2006-2010 data for the Act 250 permit process. While the Project will increase traffic volumes along this section of Pine Street, the geometric and signal control improvements proposed for this area will promote more orderly progression of traffic movement and more positive assignments of travel rights of way, which should help reduce these types of crashes.

### **Pedestrian/Bicyclist Safety**

Given the low number of reported incidents involving pedestrians or bicyclists, it is not possible to identify HCL for these travel modes or to identify any specific patterns or contributing factors. The Project will include a variety of improvements in the Maple and King Street Neighborhood that will enhance pedestrian and bicyclist accessibility and safety. Pine Street will be modified and rehabilitated to include curb extensions and new high-contrast crosswalks at the intersections. This will make the area safer for pedestrians by reduced crossing distance and improved pedestrian conspicuity at the crossings. The sidewalks on both sides of Pine Street will also be reconstructed and new ADA-compliant sidewalk access ramps and detectable warning surfaces will be incorporated at the crosswalk locations. Pedestrian signals and pushbuttons will be provided at the Pine Street and Maple Street intersection, Pine Street and King Street intersection, and Pine Street and Main Street intersection. The signals will operate with an exclusive phase so that pedestrians will be able to cross at these intersections without interacting with vehicular traffic. This feature will help to make crossing safer and easier, especially for larger family groups with young children which was noted to be a concern of local residents during the public outreach for the project. Pedestrian facility improvements will also extend beyond the Maple and King Street Neighborhood to enhance pedestrian connectivity and safety between this neighborhood and schools, parks, businesses and shopping within the surrounding area.

On-road bicyclists will continue to share the traffic lanes with motor vehicles along Pine Street within the Maple and King Street Neighborhood. The bicycle accommodation in this area is restricted by land use/development patterns and narrow right-of-way available. The Project will provide signing and pavement markings to increase awareness of the shared vehicle and bicycle use of the roadway. The Project also includes a new shared-use path to the south and enhanced on-road bicycle treatments along Pine Street that will expand the

network and quality of facilities available to bicyclists having origins/destinations within the Maple and King Street Neighborhood.

#### **7.3.4 Emergency Vehicle Access**

An emergency vehicle preemption system will be installed on the Champlain Parkway and Pine Street as part of the Project. There are no new impacts to emergency vehicle access beyond those discussed in the 2009 FSEIS. Response time for emergency vehicles would be enhanced as a result of providing the emergency vehicle preemption. This would benefit residents in the Project Area, including the Maple and King Street Neighborhood.

#### **7.3.5 Parking**

There are no permanent impacts to parking in the Maple and King Street Neighborhood as a result of the Project. No loss of parking on Pine Street is anticipated; a parking lane in the northbound direction will be maintained.

### **7.4 Air Quality**

The air quality analysis performed as part of the 2009 FSEIS remains valid. Changes to traffic operations as discussed in Section 7.3.2 will reduce the impacts to air quality stated in the 2009 FSEIS. A microscale analysis was performed for the 2009 FSEIS at the intersection of Pine Street and Maple Street representing the worst-case intersection due to traffic volumes in the neighborhood. As a result of the microscale analysis, this intersection was found to be below the Vermont and NAAQS standards and resulted in no impact to the air quality for the adjacent sensitive receptors.

### **7.5 Noise**

The noise analysis included in the 2009 FSEIS remains valid. Noise abatement or other mitigation is not considered necessary. Additionally, the 2009 FSEIS noise assessment evaluated residences adjacent to the Pine Street and King Street intersection for possible noise impacts. No noise impacts were identified at this receptor location; therefore, no abatement was considered necessary.

### **7.6 Historic and Archaeological Resources**

Of the four historic districts discussed in the 2009 FSEIS, only the Battery Street Historic District overlaps with the Maple and King Street Neighborhood. The Selected Alternative for the Project has been evaluated under Section 106 and a determination of No Adverse Effect was issued on May 18, 2011. No further analysis is necessary for historic and archaeological resource impacts.

## **7.7 Construction Impacts**

Construction of the Project in the Maple and King Street Neighborhood will involve temporary impacts to normal traffic patterns due to paving and temporary sidewalk closures with detours to construct the new curbing, sidewalk, and traffic signal equipment. These impacts include typical construction-related adverse effects to pedestrian space, traffic, dust, and noise. Concerns and comments regarding construction and work zone impacts were raised from members of the Maple and King Street Neighborhood during the public outreach events. To the extent feasible, appropriate measures have been incorporated into, if not already included in, the Project's construction and planning documents to address these concerns. This section describes the measures that will be utilized to ensure that the residents of the Maple and King Street Neighborhood are adequately informed and that construction activities will not result in adverse effects to public health.

### **7.7.1 Work Zone Safety and Mobility**

The Project will include provisions that provide safe passage for pedestrians, bicyclists, and motorized vehicles during and after construction work hours while minimizing impact on traffic flow in the Maple and King Street Neighborhood. Construction phasing and scheduling will ensure safe pedestrian access through the construction area and to adjacent properties, buildings, residences, commercial properties and transit stops.

Short-term lane closures will be used to create isolated areas to complete construction within the roadway in the Maple and King Street Neighborhood. Access shall be maintained to all roadway users including vehicles, bicycles and pedestrians during these short-term lane closures.

Regular and timely coordination involving the contractor with emergency response personnel, the City's bus route and school bus routes shall be to ensure the continuity of these vital services.

Pedestrians may be directed around isolated work areas. The contractor is required to prepare a temporary pedestrian and bicyclist traffic control plan in advance of the plan being implemented. This plan will detail construction phasing and schedule as well as the specific methods of maintaining safe pedestrian and bicyclist access throughout the work zone. This includes any pedestrian crossing locations that are at locations with ADA-compliant sidewalk access ramps as well as any temporary sidewalk access ramps which will include ADA-compliant sidewalk access ramps to maintain access.

When school is in session, school bus stop accommodations will be included and coordinated with the appropriate entities. Additional flaggers will be stationed at these locations during typical pick up and drop off times while work is being performed in the area.

Other efforts that will mitigate temporary neighborhood impacts include the following:

- Time-of-day restrictions on the contractor's activities,
- MUTCD-compliant signage including changeable message boards with timely and meaningful messages consistent with the current construction activities,
- Providing pedestrian, bicycle, and vehicle detours as necessary,
- Ensuring the site is secured and accessible each evening,
- Installing temporary ramps and pedestrian access, and
- Maintaining bicycle travel paths to be free of ruts, sand, mud and other debris.

The Project will also be constructed in accordance with the City's noise ordinances which will place limitations on contractor's disruptive construction operations. Fugitive dust will be minimized by imposing requirements such as pick-up broom sweepers and other dust control measures.

### **7.7.2 Public Involvement Plan**

In addition to work zone safety and mobility provisions, a concerted Public Involvement Plan (PIP) has been developed between the City, the Champlain Parkway Municipal Project Manager (MPM), and a dedicated Project Information Manager (PIM). This PIP will utilize communication strategies that seek to inform the general public and the EJ community of work zone impacts and the changing conditions of the Project. Weekly correspondence between the resident engineer and contractor will be performed during construction. The public information team will also conduct outreach to residents and businesses adjacent to construction activities including door-to-door outreach, stakeholder interviews, calls, and visits. A database of key constituents and stakeholders will also be developed to share project information and updates throughout the construction of the Project. This list will include businesses and residents along in the Maple and King Street Neighborhood. Informational outreach will include updates to provide advance warning of expectations during construction such as traffic pattern changes or other disruptive activities and to ascertain community specific issues or concerns before construction activities commence.

Print materials for education and outreach such as project factsheets, door hangers, brochures, and flyers will be produced and distributed as part of the PIP. These materials will be translated and multi-lingual versions similar to the advance public notice approach used for the September 26, 2019 Maple and King Street Neighborhood public outreach meeting. The target languages have been verified with City personnel as part of that EJ community public involvement effort. These materials will be distributed in a variety of manners: mailed directly to residences and businesses, distributed door-to-door, posted in businesses, restaurants, and other public places, and/or posted on sign boards along the project corridor. Conventional press releases and other media alerts are also anticipated and materials will be posed to the Project's website and on the City's social media accounts.

The PIP also includes provisions to coordinate, plan, and facilitate periodic public meetings throughout the eight phases of construction on the Project. These meetings will also be advertised in advance and opportunities will be provided for public comment.

A project hotline and email address for the public to submit questions and comments will also be established as well as weekly project email updates to the stakeholder distribution list. Weekly social media posts will also be released by the City DPW on their Facebook and Twitter accounts.

The Parkway's website ([www.champlainparkway.com](http://www.champlainparkway.com)) will be used to provide information about construction progress and upcoming construction activities anticipated. This information will include the overall construction schedule as well of the anticipated schedule of key construction activities. The City's municipal website will also include links to the Parkway's website ([www.champlainparkway.com](http://www.champlainparkway.com)) to facilitate access to these construction updates. The website will be redesigned to be updated daily and provide an interactive project map to provide a closer look at the phased construction work and ongoing progress.

## **7.8 Overall Project Impacts**

This section reviews project improvements, adverse effects, and mitigation measures by affected environment in each neighborhood identified in the 2009 FSEIS. These neighborhoods include both the EJ Maple and King Street Neighborhood and seven other neighborhoods. Table 7-6 summarizes the impact to each neighborhood and shows that project improvements and adverse effects will be borne throughout the Project Area.

**Table 7-6: Summary of Project Impacts by Neighborhood**

Affected Environment*	Neighborhoods							
	Maple and King Street	Calahan (South) Park	Birchcliff Parkway	Lakeside	Flynn Avenue/ Home Avenue	South Meadows	Oakledge	Austin Drive
<b>Land Use and Socioeconomics</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Traffic Volumes</b>	<b>Negative</b>	<b>Negative</b>	Positive	<b>Negative</b>	Positive	Positive	Neutral / None	Neutral / None
<b>Mobility</b> <i>(Traffic Operations and Bicycle and Pedestrian Access)</i>	Positive	Neutral / None	Positive	Neutral / None	Positive	<b>Negative</b>	Neutral / None	Neutral / None
<b>Traffic Safety</b>	Positive	Positive	Positive	Neutral / None	Positive	Positive	Neutral / None	Neutral / None
<b>Air Quality</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Noise Environment</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Historic and Archaeological Resources</b>	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None	Neutral / None
<b>Construction Impacts</b>	<b>Negative</b>	<b>Negative</b>	Neutral / None	<b>Negative</b>	<b>Negative</b>	<b>Negative</b>	Neutral / None	Neutral / None

\* Mitigation Measures have been incorporated into this matrix.

### **7.8.1 Land Use and Socioeconomics**

This Project will have no impact to the land use and socioeconomics in any of the neighborhoods within the Project Area. Some of the non-residential areas of the Project Area may experience improved economic development opportunities and vacant land has been secured for the new right-of-way at the southern end of the Project.

### **7.8.2 Traffic Volumes**

Traffic volumes in the Maple and King Street neighborhood will increase as a result of the project, as will volumes along Pine Street in the Calahan (South) Park Neighborhood (Lakeside Avenue to Kilburn Street). The Lakeside Avenue Neighborhood will also be affected by increased traffic volumes because vehicular access to this neighborhood is only available via Lakeside Avenue. Other neighborhoods along Pine Street will see traffic volumes decrease or remain consistent with current and no-build volumes. Although the traffic volumes on Pine Street in the block from Maple Street to King Street will increase, these volumes will be 20-30% lower than the volumes on the immediately adjacent segment of Pine Street between Maple Street and Kilburn Street and as much as 40% lower than the segments between Kilburn Street and Lakeside Avenue. The volume of traffic on the block of Pine Street from King Street to Main Street will be lower than the Maple-to-King segment and these volumes will be comparable to the future (reduced) traffic volumes on the segment of Pine Street in the Birchcliff Parkway Neighborhood (between Flynn Avenue and Lakeside Avenue).

### **7.8.3 Mobility**

The Project will significantly improve mobility in the Maple and King Street Neighborhood and on the segment of Pine Street between Maple Street and King Street. Generally, all neighborhoods will experience the same or improved mobility due to the Project. However, access to areas of South Burlington such as Red Rocks and Queen City Park from the South Meadows Neighborhood will be changed as a result of the Project, which will require longer trips for people in this neighborhood to access South Burlington via the Champlain Parkway connection (vehicle access) or the shared-use path connections included in the Project.

### **7.8.4 Traffic Safety**

The Project will improve traffic safety in the Maple and King Street Neighborhood and on the segment of Pine Street between Maple Street and King Street. Other neighborhoods will either benefit from improved traffic safety from the Project or the Project will have no impact on traffic safety.

### **7.8.5 Air Quality**

The Project will not result in any air quality impacts to any neighborhoods.

### **7.8.6 Noise Environment**

In most neighborhoods, the noise environment will not be impacted by the Project. The Birchcliff Parkway Neighborhood will benefit from reduced noise and the South Meadows will experience unmitigated noise impacts.

### **7.8.7 Historic and Archaeological Resources**

The Project will not result in any impacts to historic and archaeological resources.

### **7.8.8 Construction Impacts**

Neighborhoods along the Champlain Parkway will experience temporary negative construction impacts from the Project. Neighborhoods away from the Parkway's alignment will not experience construction impacts.

## 8. DISTRIBUTION LIST FOR 2020 LS DSEIS

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### 8.1 Federal Agencies

United States Department of Transportation Office of the Secretary  
1200 New Jersey Ave, SE  
Washington, DC 20590 United States

United States Department of the Interior  
Office of Environmental Policy and Compliance  
1849 C Street NW  
Washington, DC 20240

United States Environmental Protection Agency Office of Federal Activities  
EIS Filing Section  
Ariel Rios Building (South Oval Lobby)  
Mail Code 2252-A  
Room 7220  
1200 Pennsylvania Avenue,  
NW Washington, DC 20460

United States Environmental Protection Agency Region 1  
5 Post Office Square Suite 100  
Boston, MA 02109-3912

Regional Director - Region I  
United States Department of Housing and Urban Development  
Thomas P. O'Neill, Jr. Federal Building  
10 Causeway Street, 3<sup>rd</sup> Floor  
Boston, MA 02222-1092

Office of the Executive Director  
Advisory Council on Historic Preservation  
401 F Street NW, Suite 308  
Washington, DC 20001

Regional Director - Region I  
Federal Emergency Management Agency  
99 High St.  
Boston, MA 02110

United States Army Corps of Engineers Vermont Project Office  
Michael Adams  
11 Lincoln Street, Room 210  
Essex Junction, Vermont 05452

United States Coast Guard Commander  
First Coast Guard District  
Rear Admiral Andrew J. Tiongson  
408 Atlantic Avenue  
Boston, MA 02110-2209

New England Region  
Federal Aviation Administration  
1200 District Avenue  
Burlington, MA 01803-5299

Federal Energy Regulation Commission Environmental Evaluation and Project Review  
Branch  
888 First Street, N.E.  
Washington, DC 20426

Federal Railroad Administration  
1200 New Jersey Ave, SE  
Washington, DC 20590

Regional Administrator Office of the Administrator  
Federal Transit Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Office of NEPA Policy and Compliance Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC 20585

United States Department of the Interior US Fish & Wildlife Service  
New England Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5087

United State Geological Survey New Hampshire/Vermont District  
361 Commerce Way  
Pembroke, NH 03275

United States Department of Agriculture Natural Resources Conservation Service 356  
Mountain View Drive, Suite 105  
Colchester, Vermont 05446

NOAA NEPA Coordinator Office of General Counsel  
1315 East-West Hwy, Room 15101  
Silver Spring, Maryland 20910

Karen Lumino,  
Remedial Project Manager US EPA Region 1  
5 Post Office Square – Suite 100  
Boston, MA 02109-3912

## **8.2 State Agencies**

State of Vermont  
Department of Environmental Conservation  
111 West Street  
Essex Junction, VT 05452

State of Vermont  
Agency of Natural Resources Secretary's Office  
1 National Life Drive Davis 2  
Montpelier VT 05620-3901

State of Vermont  
Agency of Commerce & Community Development  
1 National Life Drive  
Deane C. Davis Building, 6<sup>th</sup> Floor  
Montpelier, VT 05620-0501

State of Vermont  
Agency of Agriculture, Food & Markets  
116 State Street  
Montpelier, VT 05620-2901

State of Vermont  
Office of the Attorney General  
109 State Street  
Montpelier, VT 05609-1001

State of Vermont  
Vermont Emergency Management  
45 State Drive  
Waterbury, VT 05671-1300

Executive Office of Governor Phil Scott  
109 State Street, Pavilion  
Montpelier, VT 05609

### **8.3 Others (Including Local and Regional Organizations)**

Vermont Historical Society  
60 Washington Street, Ste 1  
Barre, VT 05641

University of Vermont Library  
David W. Howe Memorial Library  
538 Main St.  
Burlington, VT 05405

Chittenden County Regional Planning Commission  
110 West Canal Street  
Suite 202  
Winooski, VT 05404

Lake Champlain Basin Program  
54 West Shore Road  
Grand Isle, VT 05458

Natural Resources Board Diane B. Snelling, Chair  
10 Baldwin Street  
Montpelier, VT 05633-3201

Director of Planning and Zoning City of South Burlington  
575 Dorset Street  
South Burlington, VT 05403

Office of Mayor City of Burlington  
149 Church Street  
Ste 34  
Burlington, VT 05401

Office of the Clerk/Treasurer City of Burlington  
City Hall  
149 Church Street  
Burlington, VT 05401

City of Burlington  
Planning Board Commission Office of City Planning  
City Hall, 3<sup>rd</sup> Floor  
149 Church Street  
Burlington, Vermont 05401

Burlington Historic Preservation Review Committee  
Department of Planning and Zoning  
149 Church Street  
Burlington, VT 05401

City of Burlington Fletcher Free Library  
235 College Street  
Burlington, VT 05401

The Lake Champlain Committee  
208 Flynn Ave 3F  
Burlington, VT 05401-8434

Vermont Rail System Corporate Headquarters  
1 Railway Lane  
Burlington, VT 05401

Lake Champlain Transportation Company  
1 King Street Dock  
Burlington, VT 05401-5293

The Lake Champlain Regional Chamber of Commerce  
60 Main Street  
Burlington, VT 05401

Champlain College Library  
163 South Willard Street  
Burlington, VT 05401

Dennis P. Havey  
295 Brook Drive  
Bristol, VT 05443

Stephen A. Unsworth  
Hill, Unsworth, Barra, Bowles Ppc  
26 Railroad Avenue  
Essex Junction, VT 05452

Champlain Chocolate Company  
431 Pine Street  
Burlington, VT 05401

Douglas S. Granger  
Hunton Andrews Kurth LLP  
Riverfront Plaza, East Tower  
951 East Byrd Street Richmond, VA 23219-4074

Curtis Lumber  
315 Pine Street  
Burlington, VT 05401

Ward V NPA Steering Committee c/o Burlington City Hall.  
149 Church Street  
Burlington, VT 05401

Colin C. Campbell Trust  
45 Strong Street  
Burlington, VT 05401

Marylen A. Grigas  
317 Flynn Avenue  
Burlington, VT 05401

Diana L. Doll  
234 Pine Street  
Burlington, VT 05401

Allan S. Hunt  
89 Maple Street  
Burlington, VT 05401

René Kaczka-Valliere  
86 Lyman Avenue  
Burlington, VT 05401

Harry Clark  
8 Conger Avenue  
Burlington, VT 05401

David Barber  
166 Locust Terrace  
Burlington, VT 05401

Austin Holzer  
374 Flynn Avenue  
Burlington, VT 05401

Joan Shannon  
41 Central Avenue  
Burlington, VT 05401

Andrea E. Gray  
153 Howard Street  
Burlington, VT 05401

R. Paul Smith  
155 Austin Drive  
Burlington, VT 05401

Mark J. Floegel  
87 Howard Street  
Burlington, VT 05401

Kelvin Chu  
158 Beech Ave.  
Melrose, MA 02176 Roger Marshall  
161 Austin Drive #9  
Burlington, VT 05401

Timothy Paul Kozak  
42 Pitkin Street  
Burlington, VT 05401

Peter VonDoepp  
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Burlington, VT 05401

Erik Brown Brotz Burlington Bicycle Council City Hall  
149 Church Street Room 12  
Burlington, VT 05401

Gabriel E. Arnold  
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Burlington, VT 05401

Richard H. Gamache  
15 Lyman Avenue  
Burlington, VT 05401

Erica S. Green  
20 Arthur Court  
Burlington, VT 05401

Jacqueline Thonet  
2 Arthur Court  
Burlington, VT 05401

Daniel Weiss  
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Burlington, VT 05401 Lorilee Schoenbeck 56 Maple Street  
Burlington, VT 05401

Michael J. Royer  
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Julie A. Davis  
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Burlington, VT 05401

Patricia Hanson  
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Burlington, VT 05401

Karen M. Spach  
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Jonathan F. Galloway  
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Elwin Sherrer  
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Burlington, VT 05408

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Burlington, VT 05401

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Burlington, VT 05401

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Burlington, VT 05401

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Burlington, VT 05401

Nichole Fitzgerald  
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Burlington, VT 05401

Rebecca Grannis  
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58 Wright Avenue  
Burlington, VT 05401

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Burlington, VT 05401

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Burlington, VT 05401

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382 Pine Street  
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Burlington, VT 05401

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426 South Winooski Avenue  
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Colchester, VT 05446-0300

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Burlington Walking Work Group  
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Burlington, VT 05401

David Lustgarten  
142 Killarney Drive  
Burlington, VT 05408

Phillip Allen  
57 Maple Street  
Burlington, VT 05401

## **APPENDIX 1: CORRESPONDENCE**

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entity submitting the comments. Submissions that do not contain business confidential information should have a file name identifying the person or entity submitting the comments.

We emphasize that submitters are strongly encouraged to file comments through [www.regulations.gov](http://www.regulations.gov). You must make arrangements for any alternative method of submission with Yvonne Jamison at (202) 395-9666 in advance of transmitting a comment. You can find general information about USTR at [www.ustr.gov](http://www.ustr.gov).

As noted, we will publish non-confidential versions of submissions in the docket for public inspection. You can view submissions on [www.regulations.gov](http://www.regulations.gov) by entering the relevant docket number in the search field on the home page.

**Jeffrey Gerrish,**

*Deputy United States Trade Representative,  
Office of the U.S. Trade Representative.*

[FR Doc. 2020-01260 Filed 1-24-20; 8:45 am]

**BILLING CODE 3290-F0-P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Highway Administration**

**Limited-Scope Supplemental Environmental Impact Statement: City of Burlington, Chittenden County, Vermont**

**AGENCY:** Federal Highway Administration (FHWA), DOT.

**ACTION:** Notice of intent to prepare a Limited-Scope Supplemental Environmental Impact Statement.

**SUMMARY:** The FHWA is issuing this notice to advise the public that a Limited-Scope Supplemental Environmental Impact Statement will be prepared for the proposed Southern Connector/Champlain Parkway project in the City of Burlington, Chittenden County, Vermont.

**FOR FURTHER INFORMATION CONTACT:** Rob Sikora, Environmental Program Manager, Federal Highway Administration, 87 State Street, Room 216, Montpelier, Vermont 05602. Telephone: (802) 828-4573.

**SUPPLEMENTARY INFORMATION:** The FHWA, in cooperation with the Vermont Agency of Transportation (VTrans) and the City of Burlington, will prepare a Limited-Scope Supplemental Environmental Impact Statement (EIS) for the Burlington Southern Connector/Champlain Parkway between Interstate 189 and Main Street in Burlington, Vermont.

The Southern Connector/Champlain Parkway project has a long history with National Environmental Policy Act (NEPA) reviews dating back to the 1970's. The most recent NEPA document for the project was a Final Supplemental EIS approved by FHWA on September 22, 2009 and a Record of Decision (ROD) issued on January 13, 2010 identifying the Selected Alternative and the reasons for its selection. On October 11, 2019, the FHWA published a notice to rescind the ROD in order to re-evaluate the project's impacts to low-income and minority populations in accordance with 23 CFR 771.129. Based on the environmental re-evaluation, FHWA has determined that a Limited-Scope Supplemental EIS should be prepared for the project to address changes subsequent to 2010 in FHWA guidance and methodology for performing environmental justice analyses, updated demographic information contained in the latest available census data, and to provide additional opportunities for meaningful public involvement.

The Supplemental EIS will be limited in the scope of issues, and only assess impacts to low-income and minority populations. Based on the Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, and FHWA's "Guidance on Environmental Justice and NEPA," it is FHWA's policy to identify and address any disproportionately high and adverse effects of FHWA actions on the health or environment of low-income and minority populations to the greatest extent practicable and permitted by law. The Supplemental EIS review will also address a limited portion of the project along the Pine Street section of the Selected Alternative, between Maple Street and Main Street.

Public involvement is a critical component of the National Environmental Policy Act (NEPA) review and Federal-aid highway project development process. A Draft Limited-Scope Supplemental EIS will be made available for review and comment by Federal and state resource agencies and the public. A public hearing will be held at an accessible location in Burlington at the time the document is made available. In addition to the public hearing, and as needed during the project's NEPA review, FHWA will work with VTrans and the City of Burlington to plan, organize and provide public involvement opportunities and project status updates through the project website, local media, and a project open house. Public notice will be given of the time and

place of public meetings and hearings through local newspapers and the project website at <http://champlainparkway.com/>. No formal scoping meeting is planned at this time. Following approval of the Draft Limited-Scope Supplemental EIS, FHWA plans to issue a combined Final Limited-Scope Supplemental EIS/ROD.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Issued on: January 16, 2020.

**Matthew R. Hake,**

*Division Administrator, Montpelier, Vermont.*

[FR Doc. 2020-01333 Filed 1-24-20; 8:45 am]

**BILLING CODE 4910-22-P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Motor Carrier Safety Administration**

[Docket No. FMCSA-2012-0154; FMCSA-2012-0332; FMCSA-2013-0122; FMCSA-2013-0123]

**Qualification of Drivers; Exemption Applications; Hearing**

**AGENCY:** Federal Motor Carrier Safety Administration (FMCSA), DOT.

**ACTION:** Notice of renewal of exemptions; request for comments.

**SUMMARY:** FMCSA announces its decision to renew exemptions for 12 individuals from the hearing requirement in the Federal Motor Carrier Safety Regulations (FMCSRs) for interstate commercial motor vehicle (CMV) drivers. The exemptions enable these hard of hearing and deaf individuals to continue to operate CMVs in interstate commerce.

**DATES:** The exemptions were applicable on January 14, 2020. The exemptions expire on January 14, 2022. Comments must be received on or before February 26, 2020.

**ADDRESSES:** You may submit comments identified by the Federal Docket Management System (FDMS) Docket No. FMCSA-2012-0154, Docket No. FMCSA-2012-0332, Docket No. FMCSA-2013-0122, or Docket No. FMCSA-2013-0123 using any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov>. Follow the online instructions for submitting comments.
- *Mail:* Docket Operations; U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building

## **APPENDIX 2: TRAFFIC ANALYSES**

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**APPENDIX 2A: SUPPORTING TRAFFIC ANALYSES AND TECHNICAL DOCUMENTATION**

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SOUTHERN CONNECTOR/CHAMPLAIN PARKWAY PROJECT  
CHITTENDEN COUNTY, VERMONT

LIMITED SCOPE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT  
BURLINGTON, VERMONT MEGC-M5000 (1)

## **APPENDIX – TRAFFIC**

### **DESIGN YEAR TRAFFIC VOLUMES**

Vehicle traffic volumes were originally developed for the Project's NEPA evaluation and Project design in 2004, for the Draft Supplemental Environmental Impact Statement (DSEIS) published in 2006 and FSEIS in 2009, based on the regional travel demand model that was developed for the Chittenden County Regional Planning Commission (CCRPC, which at the time was named the Chittenden County Metropolitan Planning Organization, CCMPO). The regional model captures the interaction of transportation demand and supply and is used by the CCRPC as a basis for performing comprehensive regional planning and developing the Metropolitan Transportation Plan (MTP) to address short-and long-range transportation needs. The model that was current at the time of the Supplemental Environmental Impact Statement (SEIS) was calibrated to a base year 1998, and provided model runs for the year 2002, 2012 and 2022 planning horizons. These model outputs were then used to develop the weekday AM and PM peak hours for the Project's Estimated Time of Completion (ETC) and ETC+20 design horizon years which were the basis for the SEIS transportation analysis.

While regional travel demand models are used to identify future trends, it is common to perform post-model refinements at the intersection level to enhance the model accuracy for application to a specific project. These refinements involve an adjustment process to correlate the model's base year conditions to the project's base year and design horizon years. Essentially, this process uses the model to forecast the changes that will occur between the model's base and future years and then applies those changes to actual contemporaneous traffic counts for the project's base year. See the Transportation Modeling Methodology Documentation (2009 FSEIS Volume II, Appendix 3B) for more information about the modeling and forecasting methodology.

The design horizons considered in the 2009 FSEIS were 2008 (ETC) and 2028 (ETC+20). The traffic volumes for these design horizons were reviewed and approved by the City, VTrans, and FHWA for use as the basis of the traffic analyses for the Project. In early 2005, the design team learned that the regional model had been updated by CCRPC and that they were in the process of having this new model validated by FHWA. CCRPC staff identified that there were no substantive changes in volume trends associated with this updated model, and that the forecasted volumes as developed for the SEIS were applicable.

The path to construction did not follow the Project schedule anticipated in the 2009 FSEIS. However, the design volumes for the Project were independently checked by Resource Systems Group, Inc. (RSG) in 2011 as part of the State's Act 250 review of the Project. Act 250 is Vermont's land use and development law which provides a public process for reviewing the environmental, social and fiscal consequences of major developments and construction projects. In their review, RSG concluded that the ETC and ETC+20

traffic volumes from the FSEIS were still appropriate to be used for the analysis and design of the Project even though the construction schedule had been delayed.<sup>1</sup> This conclusion was also later affirmed in 2013 in Pre-filed Testimony prepared by Clough, Harbour & Associates, LLP as part of a Vermont Environmental Court Appeal of the Act 250 Permit.<sup>2</sup>

There have been numerous other occasions between 2011 and 2016 where traffic counts have been collected at key Project intersections and reviewed by the City and the Champlain Parkway design team for consistency with the ETC and ETC+20 design volumes. This data was collected as part of various land development impact studies, community planning studies, and Burlington Department of Public Works (DPW) projects. They are listed below (the dates noted in parentheses are the year(s) of the count data in the respective report):

- Pine Street/Howard Street Intersection Signal Warrant Analysis: 2011 (2011 data)
- Pine Street/Lakeside Avenue Interim Signal Replacement project: 2015 (2013 data)
- Maple-King Neighborhood Traffic Counts: (2013 data)
- Plan BTV South Planning Study - Phase 1 Existing Conditions Report: 2015 (2014 data)
- Burlington City Place Redevelopment (Burlington CCD) Traffic Impact Study: 2016 (2014 & 2016 data)
- City Market Development (Flynn Avenue) Traffic Impact Study: 2016 (2014 & 2016 data)
- Rail Enterprise Project Phase I: Scoping/Planning and Environmental Linkages (PEL) Study: 2016<sup>3</sup>
- Petra Cliffs Climbing Center (Briggs Street) Traffic Impact Study: 2018 (2018 data)
- 44-50 Lakeside Avenue Redevelopment Traffic Impact Study: 2018 (2018 data)

In each of these cases, the traffic counts confirmed that the existing volumes were consistent with the anticipated growth (such as in the areas of Pine Street and Lakeside Avenue where redevelopment has occurred), but that the projected future design volumes were still conservatively higher.

Most recently, traffic volumes in the Project study area were reviewed as part of a Project Reevaluation prepared in May 2019.<sup>4</sup> The Reevaluation included a comprehensive compilation of historic volume data for the period 2003-2016. The reevaluation of traffic conditions concluded that, although the Project's construction schedule has been pushed out, the traffic data and forecasts utilized for the Project from the 2009 FSEIS are still relevant. This is because actual traffic data collected in the Project area in recent years shows that the modeling for the 2009 FSEIS used conservative growth assumptions, resulting in a higher forecast of traffic volumes than has actually occurred to date. Thus, traffic volumes have not yet reached the levels forecast for the 2008 ETC, making it appropriate to continue to use the 2008 forecast traffic

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<sup>1</sup> *Champlain Parkway Traffic and Safety Analysis: Section 3.2.1 – Traffic Forecast Review*, Resource Systems Group, Inc., February 18, 2011 (Vermont Agency of Natural Resources ANR Act 250 Exhibit 14).

<sup>2</sup> *Champlain Parkway Traffic and Safety Analysis for Vermont Environmental Court Appeal: Section 3.3 – Traffic Forecast Review*, Clough, Harbour & Associates, LLP, April 5, 2013.

<sup>3</sup> *The REP study used the Champlain Parkway volume forecasts (2009 FSEIS) and CCRPC regional model forecasts as the basis of the analysis.*

<sup>4</sup> *Southern Connector/Champlain Parkway Project MEGC-M5000(1) – Reevaluation of 2009 Final Supplemental Environmental Impact Statement*, Clough Harbour & Associates in association with Stantec Consulting Services, Inc., March 2019

volumes for the ETC of the Project. However, these design volumes are not so conservatively high as to affect the overall objectives of the Project or the elements of the design.

The May 2019 Reevaluation also reviewed and documented traffic forecasts in the Maple and King Street Neighborhood from the Railyard Enterprise Project (REP) Scoping/PEL study. The REP project is located in the Waterfront South area of Burlington. The study explored alternatives to enhance multimodal transportation safety and mobility and advance economic development opportunities through the creation of new urban streets. The REP study used the projected ETC and ETC+20 Build volumes from the 2009 FSEIS for the Champlain Parkway as the base condition for its traffic analyses. However, the REP study also included a sensitivity analysis using CCRPC's current regional travel demand model for the 2015 and 2035 planning horizon years. The CCRPC model used for the REP study was a model developed in 2013 calibrated to 2010 base year traffic volumes. The travel demand model forecasts for years 2015 and 2035 included current socio-economic and land use projections and information provided by the City. These models also reflect the effects of other reasonably foreseeable transportation improvements that are programmed on the Transportation Improvement Program (TIP). The TIP includes the Project as well as a variety of spot safety/operations improvement projects, pedestrian and bicycle facility enhancements, and the intersection and interchange improvements comprising the alternatives to the Chittenden County Circumferential Highway project.

As described in the May 2019 Reevaluation Report the CCRPC model forecasts along Pine Street for the 2015 and 2035 planning horizon years are lower than the design volumes used for the Project. However, these more recently modeled results further confirm that the Parkway's design volumes are still appropriate to be used for the analysis and design of the Project. Figure 1 shows the traffic volumes for key Project intersections along Pine Street from Lakeside Avenue to Main Street for the ETC and ETC+20 design horizons from the 2009 FSEIS in the context of the 2003-2016 volume trends. These exhibits also show the CCRPC model-based volumes from the REP Scoping/PEL report for the 2015 and 2035 years, where available (note that the REP study did not evaluate the AM peak hour condition).

The fact that traffic volumes have increased at a slower rate makes it appropriate to continue to use the previous ETC and ETC+20 volumes from the 2009 FSEIS as the ETC and ETC+20 traffic forecasts for the Project. Further, the fact that traffic increased at a slower rate than forecasted does not invalidate the results of the traffic analysis, it simply makes the traffic analysis a more conservative forecast of future conditions. One conclusion from the slower traffic growth is that if traffic continues to grow at a slower pace, the design life of the Project will effectively be extended.

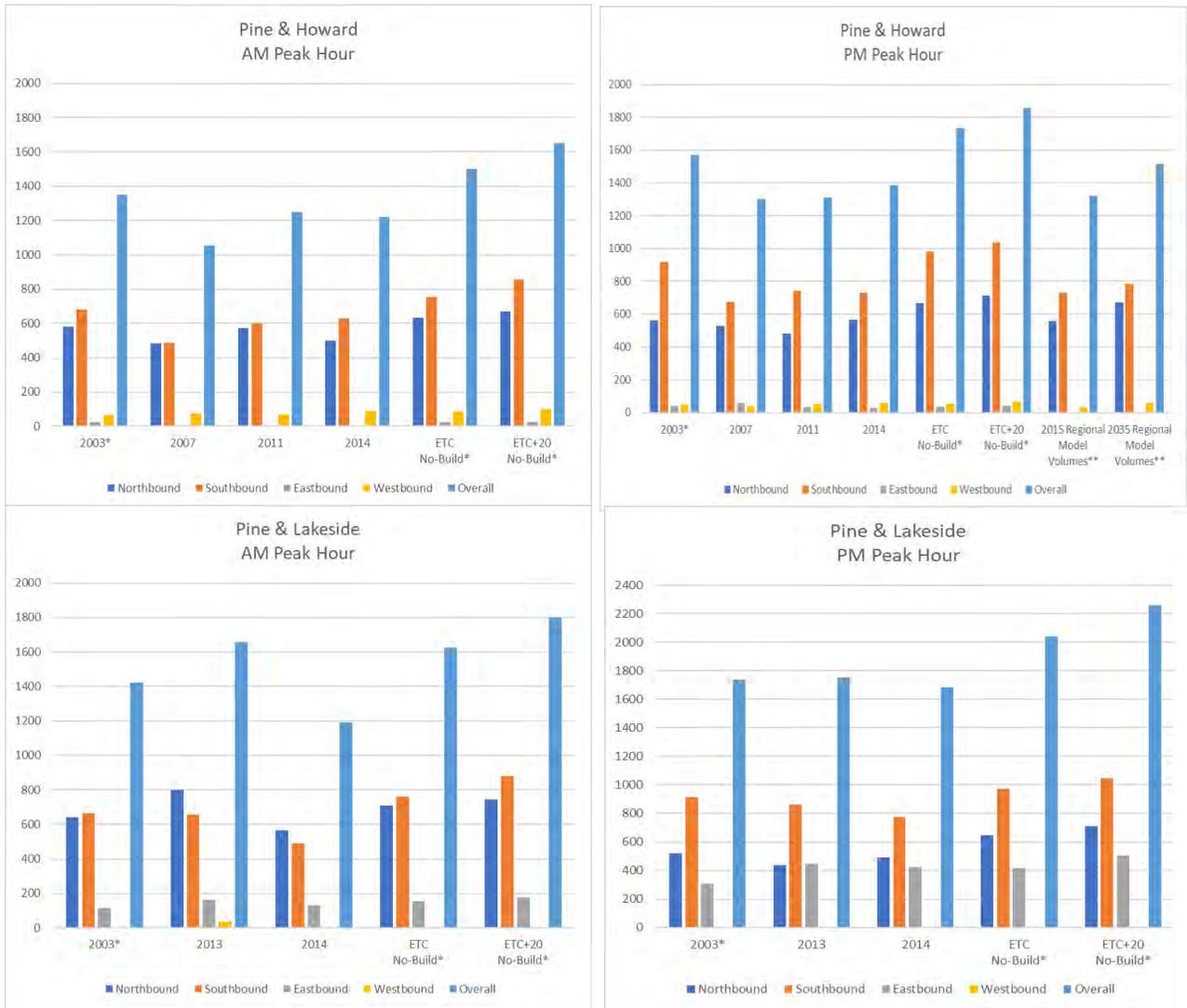
**Figure 1: Traffic Volumes at Key Pine Street Project Intersections**



\* volumes from the Champlain Parkway 2009 FSEIS

\*\* volumes from the REP Scoping/PEL Report

**Figure 1: Traffic Volumes at Key Pine Street Project Intersections (continued)**



\* volumes from the Champlain Parkway 2009 FSEIS

\*\* volumes from the REP Scoping/PEL Report

## **TRAFFIC OPERATIONS METHODOLOGY**

There have been two updates to the HCM following the completion of the 2009 FSEIS: HCM 2010, and HCM 6 (released in 2016). Each of these editions of the HCM have included new or enhanced tools and methodologies for analyzing a variety of urban and rural roadway networks incorporating the findings of ongoing research. Many of the changes in these HCM updates pertain to aspects of transportation system performance on freeway facilities, managed-lane facilities (HOV lanes), alternative interchange/ intersection forms,<sup>5</sup> and off-road pedestrian and bicycle facilities. The methodologies for analysis of vehicle traffic operations at conventional intersection types with signal or stop-sign control have not changed appreciably from the HCM 2000 edition. Also, the HCM 2010 and HCM 6 versions of the manual do not provide methodologies for calculating intersection delays at certain intersection types that are included in the Project. These include signalized intersections with exclusive pedestrian phases that operate in a coordinated signal system and complex signalized intersections that function with clustered phasing to accommodate more than 4 approaches (also in a coordinated signal system). Because of these project elements, the HCM 2000 methodologies as used in the 2009 FSEIS continue to be applicable for the analysis of the Project.

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<sup>5</sup> *Groups of two or more closely spaced intersections that are operationally interdependent and function as a single unit and where one or more traffic movements are rerouted to nearby secondary junctions. Examples include diverging-diamond interchanges, restricted crossing U-turn intersections, and median U-turn intersections.*

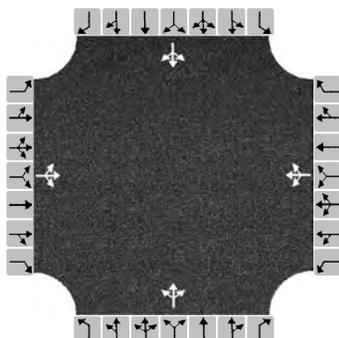
**APPENDIX 2B: 2020 LS DSEIS UPDATED TRAFFIC CAPACITY ANALYSIS**

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# HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	CHA	Intersection	Pine St & Maple St
Agency/Co.		Jurisdiction	City of Burlington, VT
Date Performed	1/7/2020	East/West Street	Maple St
Analysis Year		North/South Street	Pine St
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.90
Time Analyzed	ETC AM Peak Hour NO-BUILD CONDITION		
Project Description	Champlain Parkway CHA File 008659.000		

## Lanes



## Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	5	55	310	70	100	10	120	370	55	5	325	5
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			LTR			LTR			LTR		
Flow Rate, v (veh/h)	411			200			606			372		
Percent Heavy Vehicles	2			2			2			2		

## Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.365			0.178			0.538			0.331		
Final Departure Headway, hd (s)	7.44			8.83			7.73			7.93		
Final Degree of Utilization, x	0.850			0.491			1.301			0.820		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, ts (s)	5.44			6.83			5.73			5.93		

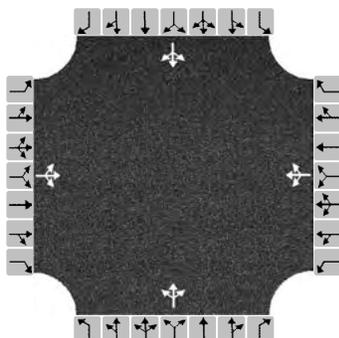
## Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	411			200			606			372		
Capacity	484			407			466			454		
95% Queue Length, Q <sub>95</sub> (veh)	8.7			2.6			26.2			7.8		
Control Delay (s/veh)	39.7			20.1			173.9			38.0		
Level of Service, LOS	E			C			F			E		
Approach Delay (s/veh)	39.7			20.1			173.9			38.0		
Approach LOS	E			C			F			E		
Intersection Delay, s/veh   LOS	88.0						F					

# HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	CHA	Intersection	Pine St & Maple St
Agency/Co.		Jurisdiction	City of Burlington, VT
Date Performed	1/7/2020	East/West Street	Maple St
Analysis Year		North/South Street	Pine St
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.90
Time Analyzed	ETC PM Peak Hour NO-BUILD CONDITION		
Project Description	Champlain Parkway CHA File 008659.000		

## Lanes



## Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	5	140	205	60	105	110	300	205	60	60	415	5
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			LTR			LTR			LTR		
Flow Rate, v (veh/h)	389			306			628			533		
Percent Heavy Vehicles	2			2			2			2		

## Departure Headway and Service Time

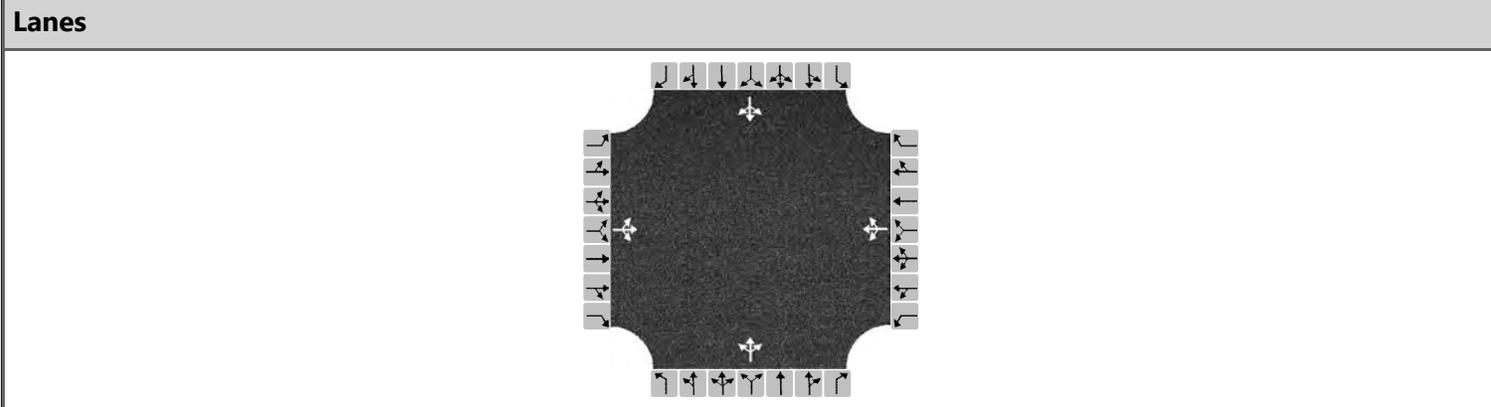
Initial Departure Headway, hd (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.346			0.272			0.558			0.474		
Final Departure Headway, hd (s)	8.69			9.24			8.95			8.93		
Final Degree of Utilization, x	0.938			0.784			1.561			1.322		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, ts (s)	6.69			7.24			6.95			6.93		

## Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	389			306			628			533		
Capacity	414			390			402			403		
95% Queue Length, Q <sub>95</sub> (veh)	10.6			6.7			34.9			24.4		
Control Delay (s/veh)	59.9			38.6			287.2			187.3		
Level of Service, LOS	F			E			F			F		
Approach Delay (s/veh)	59.9			38.6			287.2			187.3		
Approach LOS	F			E			F			F		
Intersection Delay, s/veh   LOS	169.9						F					

# HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	CHA	Intersection	Pine St & Maple St
Agency/Co.		Jurisdiction	City of Burlington, VT
Date Performed	1/7/2020	East/West Street	Maple St
Analysis Year		North/South Street	Pine St
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.90
Time Analyzed	ETC+20 AM Peak Hour      NO-BUILD CONDITION		
Project Description	Champlain Parkway    CHA File 008659.000		



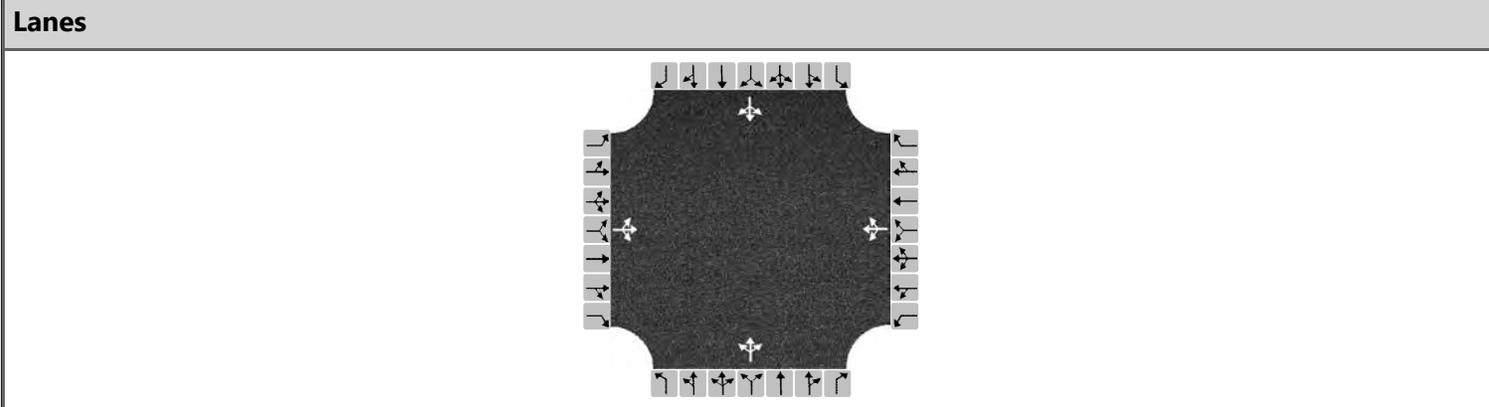
Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	5	55	365	75	100	10	105	395	55	5	365	5
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			LTR			LTR			LTR		
Flow Rate, v (veh/h)	472			206			617			417		
Percent Heavy Vehicles	2			2			2			2		

Departure Headway and Service Time												
Initial Departure Headway, hd (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.420			0.183			0.548			0.370		
Final Departure Headway, hd (s)	7.87			9.58			8.36			8.42		
Final Degree of Utilization, x	1.033			0.547			1.433			0.975		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, ts (s)	5.87			7.58			6.36			6.42		

Capacity, Delay and Level of Service												
Flow Rate, v (veh/h)	472			206			617			417		
Capacity	457			376			430			427		
95% Queue Length, Q <sub>95</sub> (veh)	14.3			3.2			30.8			11.8		
Control Delay (s/veh)	79.2			23.6			230.7			66.8		
Level of Service, LOS	F			C			F			F		
Approach Delay (s/veh)	79.2			23.6			230.7			66.8		
Approach LOS	F			C			F			F		
Intersection Delay, s/veh   LOS	124.1						F					

# HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	CHA	Intersection	Pine St & Maple St
Agency/Co.		Jurisdiction	City of Burlington, VT
Date Performed	1/7/2020	East/West Street	Maple St
Analysis Year	2020	North/South Street	Pine St
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.90
Time Analyzed	ETC+20 PM Peak Hour      NO-BUILD CONDITION		
Project Description	Champlain Parkway    CHA File 008659.000		



**Vehicle Volume and Adjustments**

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	5	145	215	65	100	120	320	220	60	60	420	5
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			LTR			LTR			LTR		
Flow Rate, v (veh/h)	406			317			667			539		
Percent Heavy Vehicles	2			2			2			2		

**Departure Headway and Service Time**

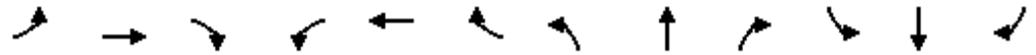
Initial Departure Headway, hd (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.360			0.281			0.593			0.479		
Final Departure Headway, hd (s)	8.78			9.35			9.18			9.15		
Final Degree of Utilization, x	0.989			0.823			1.700			1.370		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, ts (s)	6.78			7.35			7.18			7.15		

**Capacity, Delay and Level of Service**

Flow Rate, v (veh/h)	406			317			667			539		
Capacity	410			385			392			393		
95% Queue Length, Q <sub>95</sub> (veh)	12.1			7.4			40.5			26.0		
Control Delay (s/veh)	71.9			43.6			348.1			207.5		
Level of Service, LOS	F			E			F			F		
Approach Delay (s/veh)	71.9			43.6			348.1			207.5		
Approach LOS	F			E			F			F		
Intersection Delay, s/veh   LOS	200.7						F					

HCM Signalized Intersection Capacity Analysis  
 11: Pine Street & Maple Street

ETC+20 Build  
 AM Pk Hr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕			↕		
Traffic Volume (vph)	5	50	300	80	100	10	85	470	55	10	600	5	
Future Volume (vph)	5	50	300	80	100	10	85	470	55	10	600	5	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	10	10	10	11	11	11	11	11	11	11	11	11	
Grade (%)		3%			-3%			4%			-3%		
Total Lost time (s)		4.0			4.0			4.0			4.0		
Lane Util. Factor		1.00			1.00			1.00			1.00		
Frt		0.89			0.99			0.99			1.00		
Flt Protected		1.00			0.98			0.99			1.00		
Satd. Flow (prot)		1516			1777			1731			1824		
Flt Permitted		1.00			0.50			0.83			0.99		
Satd. Flow (perm)		1511			899			1450			1806		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	6	56	333	89	111	11	94	522	61	11	667	6	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	395	0	0	211	0	0	677	0	0	684	0	
Parking (#/hr)			5			5							
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA		
Protected Phases		4			8			2			6		
Permitted Phases	4			8			2			6			
Actuated Green, G (s)		25.1			25.1			51.1			51.1		
Effective Green, g (s)		25.1			25.1			51.1			51.1		
Actuated g/C Ratio		0.28			0.28			0.57			0.57		
Clearance Time (s)		4.0			4.0			4.0			4.0		
Vehicle Extension (s)		2.0			2.0			3.0			3.0		
Lane Grp Cap (vph)		421			250			823			1025		
v/s Ratio Prot													
v/s Ratio Perm		c0.26			0.23			c0.47			0.38		
v/c Ratio		0.94			0.84			0.82			0.67		
Uniform Delay, d1		31.7			30.6			15.8			13.5		
Progression Factor		1.00			1.00			1.00			1.16		
Incremental Delay, d2		28.2			21.3			9.1			3.0		
Delay (s)		59.9			51.9			24.9			18.6		
Level of Service		E			D			C			B		
Approach Delay (s)		59.9			51.9			24.9			18.6		
Approach LOS		E			D			C			B		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			32.6									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.83										
Actuated Cycle Length (s)			90.0									Sum of lost time (s)	11.0
Intersection Capacity Utilization			110.2%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis  
12: Pine Street & King Street

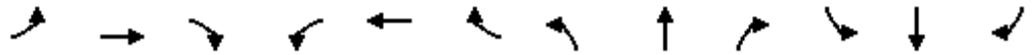
ETC+20 Build  
AM Pk Hr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕			↕		
Traffic Volume (vph)	10	105	185	35	105	25	60	365	55	20	395	5	
Future Volume (vph)	10	105	185	35	105	25	60	365	55	20	395	5	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11	
Grade (%)		3%			-5%			3%			-4%		
Total Lost time (s)		4.0			4.0			4.0			4.0		
Lane Util. Factor		1.00			1.00			1.00			1.00		
Frt		0.92			0.98			0.98			1.00		
Flt Protected		1.00			0.99			0.99			1.00		
Satd. Flow (prot)		1567			1727			1735			1829		
Flt Permitted		0.99			0.79			0.90			0.97		
Satd. Flow (perm)		1553			1382			1567			1775		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	11	117	206	39	117	28	67	406	61	22	439	6	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	334	0	0	184	0	0	534	0	0	467	0	
Parking (#/hr)			5			5			5				
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA		
Protected Phases		4			8			2			6		
Permitted Phases	4			8			2			6			
Actuated Green, G (s)		22.8			22.8			53.4			53.4		
Effective Green, g (s)		22.8			22.8			53.4			53.4		
Actuated g/C Ratio		0.25			0.25			0.59			0.59		
Clearance Time (s)		4.0			4.0			4.0			4.0		
Vehicle Extension (s)		2.0			2.0			3.0			3.0		
Lane Grp Cap (vph)		393			350			929			1053		
v/s Ratio Prot													
v/s Ratio Perm		c0.22			0.13			c0.34			0.26		
v/c Ratio		0.85			0.53			0.57			0.44		
Uniform Delay, d1		32.0			28.9			11.3			10.1		
Progression Factor		1.00			1.00			0.73			0.82		
Incremental Delay, d2		15.1			0.7			1.5			1.1		
Delay (s)		47.1			29.6			9.8			9.4		
Level of Service		D			C			A			A		
Approach Delay (s)		47.1			29.6			9.8			9.4		
Approach LOS		D			C			A			A		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			20.3									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.63										
Actuated Cycle Length (s)			90.0									Sum of lost time (s)	11.0
Intersection Capacity Utilization			75.9%									ICU Level of Service	D
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis  
 13: Pine Street & Main Street

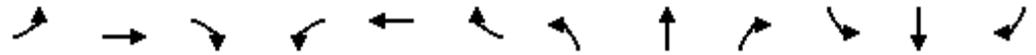
ETC+20 Build  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↔		↖	↗			↖	↗		↔		
Traffic Volume (vph)	40	185	225	10	235	60	215	165	20	45	190	40	
Future Volume (vph)	40	185	225	10	235	60	215	165	20	45	190	40	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	12	12	12	10	11	11	11	11	10	12	12	12	
Grade (%)		5%			-5%			4%				-4%	
Total Lost time (s)		5.0		5.0	5.0			6.0	6.0		6.0		
Lane Util. Factor		1.00		1.00	1.00			1.00	1.00		1.00		
Frt		0.93		1.00	0.97			1.00	0.85		0.98		
Flt Protected		1.00		0.95	1.00			0.97	1.00		0.99		
Satd. Flow (prot)		1686		1693	1789			1716	1448		1848		
Flt Permitted		0.93		0.32	1.00			0.64	1.00		0.87		
Satd. Flow (perm)		1583		567	1789			1129	1448		1617		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	44	206	250	11	261	67	239	183	22	50	211	44	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	500	0	11	328	0	0	422	22	0	305	0	
Parking (#/hr)			5			8						3	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA		
Protected Phases		4			8			2				6	
Permitted Phases	4			8			2		2	6			
Actuated Green, G (s)		31.7		31.7	31.7			39.9	39.9		39.9		
Effective Green, g (s)		31.7		31.7	31.7			39.9	39.9		39.9		
Actuated g/C Ratio		0.35		0.35	0.35			0.44	0.44		0.44		
Clearance Time (s)		5.0		5.0	5.0			6.0	6.0		6.0		
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0		3.0		
Lane Grp Cap (vph)		557		199	630			500	641		716		
v/s Ratio Prot					0.18								
v/s Ratio Perm		c0.32		0.02				c0.37	0.02		0.19		
v/c Ratio		0.90		0.06	0.52			0.84	0.03		0.43		
Uniform Delay, d1		27.6		19.3	23.1			22.3	14.2		17.2		
Progression Factor		1.00		1.00	1.00			0.72	0.94		1.00		
Incremental Delay, d2		17.0		0.1	0.8			13.7	0.1		1.9		
Delay (s)		44.7		19.4	23.9			29.8	13.4		19.0		
Level of Service		D		B	C			C	B		B		
Approach Delay (s)		44.7			23.8			29.0			19.0		
Approach LOS		D			C			C			B		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			30.9									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.82										
Actuated Cycle Length (s)			90.0									Sum of lost time (s)	14.0
Intersection Capacity Utilization			95.6%									ICU Level of Service	F
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis  
 11: Pine Street & Maple Street

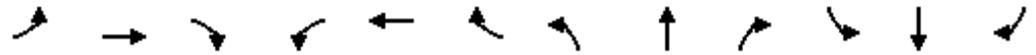
ETC+20 Build  
 PM Pk Hr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕			↕		
Traffic Volume (vph)	10	145	245	80	85	90	110	495	60	55	475	10	
Future Volume (vph)	10	145	245	80	85	90	110	495	60	55	475	10	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	10	10	10	11	11	11	11	11	11	11	11	11	
Grade (%)		3%			-3%			4%			-3%		
Total Lost time (s)		4.0			4.0			4.0			4.0		
Lane Util. Factor		1.00			1.00			1.00			1.00		
Frt		0.92			0.95			0.99			1.00		
Flt Protected		1.00			0.98			0.99			0.99		
Satd. Flow (prot)		1569			1714			1729			1814		
Flt Permitted		0.99			0.55			0.80			0.88		
Satd. Flow (perm)		1556			959			1399			1613		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	11	161	272	89	94	100	122	550	67	61	528	11	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	444	0	0	283	0	0	739	0	0	600	0	
Parking (#/hr)			5			5							
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA		
Protected Phases		4			8			2			6		
Permitted Phases	4			8			2			6			
Actuated Green, G (s)		27.0			27.0			49.2			49.2		
Effective Green, g (s)		27.0			27.0			49.2			49.2		
Actuated g/C Ratio		0.30			0.30			0.55			0.55		
Clearance Time (s)		4.0			4.0			4.0			4.0		
Vehicle Extension (s)		4.0			4.0			4.0			4.0		
Lane Grp Cap (vph)		466			287			764			881		
v/s Ratio Prot													
v/s Ratio Perm		0.29			c0.30			c0.53			0.37		
v/c Ratio		0.95			0.99			0.97			0.68		
Uniform Delay, d1		30.9			31.3			19.6			14.7		
Progression Factor		1.00			1.00			1.00			0.89		
Incremental Delay, d2		30.0			49.0			25.5			3.5		
Delay (s)		60.9			80.3			45.1			16.6		
Level of Service		E			F			D			B		
Approach Delay (s)		60.9			80.3			45.1			16.6		
Approach LOS		E			F			D			B		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			45.0									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.94										
Actuated Cycle Length (s)			90.0									Sum of lost time (s)	11.0
Intersection Capacity Utilization			103.7%									ICU Level of Service	G
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis  
 12: Pine Street & King Street

ETC+20 Build  
 PM Pk Hr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕			↕		
Traffic Volume (vph)	5	130	200	50	160	30	185	390	25	30	290	10	
Future Volume (vph)	5	130	200	50	160	30	185	390	25	30	290	10	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11	
Grade (%)		4%			-5%			3%				-4%	
Total Lost time (s)		4.0			4.0			4.0			4.0		
Lane Util. Factor		1.00			1.00			1.00			1.00		
Frt		0.92			0.98			0.99			1.00		
Flt Protected		1.00			0.99			0.98			1.00		
Satd. Flow (prot)		1565			1734			1737			1821		
Flt Permitted		0.99			0.73			0.75			0.92		
Satd. Flow (perm)		1558			1272			1324			1680		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	6	144	222	56	178	33	206	433	28	33	322	11	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	372	0	0	267	0	0	667	0	0	366	0	
Parking (#/hr)			5			5			5				
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA		
Protected Phases		4			8			2			6		
Permitted Phases	4			8			2			6			
Actuated Green, G (s)		24.5			24.5			51.7			51.7		
Effective Green, g (s)		24.5			24.5			51.7			51.7		
Actuated g/C Ratio		0.27			0.27			0.57			0.57		
Clearance Time (s)		4.0			4.0			4.0			4.0		
Vehicle Extension (s)		4.0			4.0			4.0			4.0		
Lane Grp Cap (vph)		424			346			760			965		
v/s Ratio Prot													
v/s Ratio Perm		c0.24			0.21			c0.50			0.22		
v/c Ratio		0.88			0.77			0.88			0.38		
Uniform Delay, d1		31.3			30.2			16.4			10.4		
Progression Factor		1.00			1.00			0.48			1.24		
Incremental Delay, d2		18.6			10.8			5.7			1.0		
Delay (s)		49.9			41.0			13.6			13.9		
Level of Service		D			D			B			B		
Approach Delay (s)		49.9			41.0			13.6			13.9		
Approach LOS		D			D			B			B		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			26.1									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.85										
Actuated Cycle Length (s)			90.0									Sum of lost time (s)	11.0
Intersection Capacity Utilization			95.5%									ICU Level of Service	F
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis  
 13: Pine Street & Main Street

ETC+20 Build  
 PM Pk Hr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕		↕	↕			↕	↕		↕		
Traffic Volume (vph)	10	255	95	65	290	40	260	105	60	65	170	15	
Future Volume (vph)	10	255	95	65	290	40	260	105	60	65	170	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	12	12	12	10	11	11	11	11	10	12	12	12	
Grade (%)		5%			-5%			4%				-4%	
Total Lost time (s)		5.0		5.0	5.0			6.0	6.0		6.0		
Lane Util. Factor		1.00		1.00	1.00			1.00	1.00		1.00		
Frt		0.96		1.00	0.98			1.00	0.85		0.99		
Flt Protected		1.00		0.95	1.00			0.97	1.00		0.99		
Satd. Flow (prot)		1749		1693	1812			1704	1448		1860		
Flt Permitted		0.98		0.28	1.00			0.63	1.00		0.81		
Satd. Flow (perm)		1714		502	1812			1111	1448		1535		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	11	283	106	72	322	44	289	117	67	72	189	17	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	400	0	72	366	0	0	406	67	0	278	0	
Parking (#/hr)			5			8						3	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA		
Protected Phases		4			8			2				6	
Permitted Phases	4			8			2		2	6			
Actuated Green, G (s)		24.3		24.3	24.3			47.3	47.3			47.3	
Effective Green, g (s)		24.3		24.3	24.3			47.3	47.3			47.3	
Actuated g/C Ratio		0.27		0.27	0.27			0.53	0.53			0.53	
Clearance Time (s)		5.0		5.0	5.0			6.0	6.0			6.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0			3.0	
Lane Grp Cap (vph)		462		135	489			583	761			806	
v/s Ratio Prot					0.20								
v/s Ratio Perm		c0.23		0.14				c0.37	0.05			0.18	
v/c Ratio		0.87		0.53	0.75			0.70	0.09			0.34	
Uniform Delay, d1		31.3		28.0	30.1			16.0	10.6			12.4	
Progression Factor		1.00		1.00	1.00			0.92	1.19			1.00	
Incremental Delay, d2		15.5		4.0	6.2			3.7	0.1			1.2	
Delay (s)		46.8		32.0	36.2			18.4	12.7			13.5	
Level of Service		D		C	D			B	B			B	
Approach Delay (s)		46.8			35.5			17.6				13.5	
Approach LOS		D			D			B				B	
<b>Intersection Summary</b>													
HCM 2000 Control Delay			29.2									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.71										
Actuated Cycle Length (s)			90.0									Sum of lost time (s)	14.0
Intersection Capacity Utilization			85.7%									ICU Level of Service	E
Analysis Period (min)			15										
c	Critical Lane Group												

Queues  
11: Pine Street & Maple Street

ETC+20 Build  
AM Pk Hr



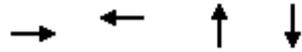
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	395	211	677	684
v/c Ratio	0.94	0.84	0.79	0.64
Control Delay	64.4	60.6	24.7	19.5
Queue Delay	0.0	0.0	0.0	0.8
Total Delay	64.4	60.6	24.7	20.3
Queue Length 50th (ft)	216	111	247	310
Queue Length 95th (ft)	#387	#235	#644	#555
Internal Link Dist (ft)	745	331	2283	316
Turn Bay Length (ft)				
Base Capacity (vph)	436	259	862	1074
Starvation Cap Reductn	0	0	0	159
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.91	0.81	0.79	0.75

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Queues  
12: Pine Street & King Street

ETC+20 Build  
AM Pk Hr



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	334	184	534	467
v/c Ratio	0.85	0.53	0.55	0.42
Control Delay	52.3	34.1	10.9	10.3
Queue Delay	0.0	0.0	0.5	0.5
Total Delay	52.3	34.1	11.4	10.8
Queue Length 50th (ft)	177	88	111	61
Queue Length 95th (ft)	#317	155	m127	m235
Internal Link Dist (ft)	744	334	316	332
Turn Bay Length (ft)				
Base Capacity (vph)	431	383	971	1099
Starvation Cap Reductn	0	0	142	288
Spillback Cap Reductn	0	0	0	238
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.77	0.48	0.64	0.58

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
13: Pine Street & Main Street

ETC+20 Build  
AM Pk Hr



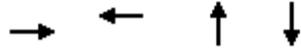
Lane Group	EBT	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	500	11	328	422	22	305
v/c Ratio	0.90	0.06	0.52	0.80	0.03	0.40
Control Delay	47.8	18.4	25.8	31.4	18.8	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	18.4	25.8	31.4	18.8	22.7
Queue Length 50th (ft)	255	4	140	119	4	101
Queue Length 95th (ft)	#421	15	213	m#534	m13	#319
Internal Link Dist (ft)	746		303	332		338
Turn Bay Length (ft)		100			75	
Base Capacity (vph)	615	220	695	530	680	760
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.05	0.47	0.80	0.03	0.40

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
11: Pine Street & Maple Street

ETC+20 Build  
PM Pk Hr



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	444	283	739	600
v/c Ratio	0.95	0.99	0.92	0.65
Control Delay	64.3	83.9	38.2	17.4
Queue Delay	0.0	0.0	15.8	1.0
Total Delay	64.3	83.9	54.0	18.4
Queue Length 50th (ft)	246	159	316	192
Queue Length 95th (ft)	#435	#321	#747	m#497
Internal Link Dist (ft)	745	331	2283	316
Turn Bay Length (ft)				
Base Capacity (vph)	466	287	801	925
Starvation Cap Reductn	0	0	0	130
Spillback Cap Reductn	0	0	74	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.95	0.99	1.02	0.75

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
12: Pine Street & King Street

ETC+20 Build  
PM Pk Hr



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	372	267	667	366
v/c Ratio	0.88	0.77	0.84	0.36
Control Delay	53.9	46.2	15.8	15.0
Queue Delay	0.3	0.1	2.5	0.3
Total Delay	54.2	46.4	18.4	15.4
Queue Length 50th (ft)	197	136	93	114
Queue Length 95th (ft)	#348	#250	m#502	m152
Internal Link Dist (ft)	744	334	316	332
Turn Bay Length (ft)				
Base Capacity (vph)	450	367	795	1008
Starvation Cap Reductn	0	0	55	243
Spillback Cap Reductn	4	3	0	91
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.83	0.73	0.90	0.48

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
13: Pine Street & Main Street

ETC+20 Build  
PM Pk Hr



Lane Group	EBT	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	400	72	366	406	67	278
v/c Ratio	0.86	0.53	0.75	0.66	0.08	0.33
Control Delay	50.4	42.6	39.9	22.1	17.3	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.4	42.6	39.9	22.1	17.3	16.1
Queue Length 50th (ft)	209	34	184	90	13	74
Queue Length 95th (ft)	#346	80	281	m#376	m30	219
Internal Link Dist (ft)	746		303	332		338
Turn Bay Length (ft)		100			75	
Base Capacity (vph)	514	150	543	613	798	847
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.48	0.67	0.66	0.08	0.33

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

**APPENDIX 2C: 2009 FSEIS TRAFFIC CAPACITY ANALYSIS**

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HCM Unsignalized Intersection Capacity Analysis  
 10: Maple Street & Pine Street

NO BUILD ALTERNATIVE  
 2028 AM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	55	365	75	100	10	105	395	55	5	365	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	61	406	83	111	11	117	439	61	6	406	6

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	472	206	617	417
Volume Left (vph)	6	83	117	6
Volume Right (vph)	406	11	61	6
Hadj (s)	-0.48	0.08	0.01	0.03
Departure Headway (s)	7.9	9.6	8.4	8.4
Degree Utilization, x	1.03	0.55	1.43	0.97
Capacity (veh/h)	460	363	442	417
Control Delay (s)	79.0	23.5	230.4	66.8
Approach Delay (s)	79.0	23.5	230.4	66.8
Approach LOS	F	C	F	F

Intersection Summary			
Delay		123.9	
HCM Level of Service		F	
Intersection Capacity Utilization	98.8%		ICU Level of Service F
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis  
 10: Maple Street & Pine Street

NO BUILD ALTERNATIVE  
 2028 PM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	145	215	65	100	120	320	220	60	60	420	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	161	239	72	111	133	356	244	67	67	467	6

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	406	317	667	539
Volume Left (vph)	6	72	356	67
Volume Right (vph)	239	133	67	6
Hadj (s)	-0.32	-0.17	0.08	0.05
Departure Headway (s)	8.8	9.4	9.2	9.2
Degree Utilization, x	0.99	0.82	1.70	1.37
Capacity (veh/h)	406	379	395	402
Control Delay (s)	72.3	43.8	350.3	209.2
Approach Delay (s)	72.3	43.8	350.3	209.2
Approach LOS	F	E	F	F

Intersection Summary			
Delay		202.0	
HCM Level of Service		F	
Intersection Capacity Utilization	109.3%		ICU Level of Service H
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis  
 9: King Street & Pine Street

NO BUILD ALTERNATIVE  
 2028 AM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	110	95	25	105	25	10	355	45	25	260	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	122	106	28	117	28	11	394	50	28	289	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	239	172	456	322								
Volume Left (vph)	11	28	11	28								
Volume Right (vph)	106	28	50	6								
Hadj (s)	-0.22	-0.03	-0.03	0.04								
Departure Headway (s)	6.5	6.9	6.0	6.3								
Degree Utilization, x	0.43	0.33	0.76	0.56								
Capacity (veh/h)	481	438	579	527								
Control Delay (s)	14.4	13.3	25.1	17.1								
Approach Delay (s)	14.4	13.3	25.1	17.1								
Approach LOS	B	B	D	C								

Intersection Summary			
Delay		19.1	
HCM Level of Service		C	
Intersection Capacity Utilization	50.1%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis  
 9: King Street & Pine Street

NO BUILD ALTERNATIVE  
 2028 PM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	130	185	40	160	25	35	285	25	30	265	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	144	206	44	178	28	39	317	28	33	294	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	356	250	383	339								
Volume Left (vph)	6	44	39	33								
Volume Right (vph)	206	28	28	11								
Hadj (s)	-0.31	0.00	0.01	0.03								
Departure Headway (s)	7.1	7.8	7.3	7.4								
Degree Utilization, x	0.71	0.54	0.77	0.70								
Capacity (veh/h)	466	401	467	448								
Control Delay (s)	25.5	19.6	31.1	26.0								
Approach Delay (s)	25.5	19.6	31.1	26.0								
Approach LOS	D	C	D	D								

Intersection Summary			
Delay		26.1	
HCM Level of Service		D	
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis  
 5: Main Street & Pine Street

NO BUILD ALTERNATIVE  
 2028 AM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗		↕	↗		↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.96			1.00	0.85		1.00	0.85		0.98	
Flt Protected		0.99			1.00	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1772			1861	1583		1802	1583		1801	
Flt Permitted		0.94			0.99	1.00		0.63	1.00		0.88	
Satd. Flow (perm)		1668			1847	1583		1177	1583		1601	
Volume (vph)	40	220	125	5	285	65	260	125	10	45	160	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	244	139	6	317	72	289	139	11	50	178	50
RTOR Reduction (vph)	0	0	0	0	0	48	0	0	6	0	0	0
Lane Group Flow (vph)	0	427	0	0	323	24	0	428	5	0	278	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8				4
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		19.5			19.5	19.5		26.9	26.9			26.9
Effective Green, g (s)		20.5			20.5	20.5		27.9	27.9			27.9
Actuated g/C Ratio		0.33			0.33	0.33		0.46	0.46			0.46
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0			5.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)		559			619	530		537	722			730
v/s Ratio Prot												
v/s Ratio Perm		c0.26			0.17	0.02		c0.36	0.00			0.17
v/c Ratio		0.76			0.52	0.05		0.80	0.01			0.38
Uniform Delay, d1		18.2			16.4	13.7		14.2	9.1			11.0
Progression Factor		1.00			1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2		6.1			0.8	0.0		8.1	0.0			0.3
Delay (s)		24.3			17.2	13.8		22.3	9.1			11.3
Level of Service		C			B	B		C	A			B
Approach Delay (s)		24.3			16.6			22.0				11.3
Approach LOS		C			B			C				B
<b>Intersection Summary</b>												
HCM Average Control Delay		19.3			HCM Level of Service				B			
HCM Volume to Capacity ratio		0.71										
Actuated Cycle Length (s)		61.2			Sum of lost time (s)				8.0			
Intersection Capacity Utilization		84.6%			ICU Level of Service				E			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
5: Main Street & Pine Street

NO BUILD ALTERNATIVE  
2028 PM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗		↕	↗		↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.97			1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00			0.99	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1803			1845	1583		1806	1583		1820	
Flt Permitted		0.99			0.87	1.00		0.67	1.00		0.85	
Satd. Flow (perm)		1780			1629	1583		1239	1583		1561	
Volume (vph)	10	260	80	70	295	35	150	90	70	65	150	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	289	89	78	328	39	167	100	78	72	167	17
RTOR Reduction (vph)	0	0	0	0	0	24	0	0	50	0	0	0
Lane Group Flow (vph)	0	389	0	0	406	15	0	267	28	0	256	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8				4
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		19.4			19.4	19.4		17.2	17.2			17.2
Effective Green, g (s)		20.4			20.4	20.4		18.2	18.2			18.2
Actuated g/C Ratio		0.40			0.40	0.40		0.35	0.35			0.35
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0			5.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)		706			647	628		439	561			553
v/s Ratio Prot												
v/s Ratio Perm		0.22			0.25	0.01		0.22	0.02			0.16
v/c Ratio		0.55			0.63	0.02		0.61	0.05			0.46
Uniform Delay, d1		12.0			12.4	9.4		13.7	10.9			12.8
Progression Factor		1.00			1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2		0.9			1.9	0.0		2.4	0.0			0.6
Delay (s)		12.9			14.4	9.5		16.1	10.9			13.4
Level of Service		B			B	A		B	B			B
Approach Delay (s)		12.9			13.9			14.9				13.4
Approach LOS		B			B			B				B

Intersection Summary			
HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	51.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
10: Maple Street & Pine Street

RSG C1 & C2 Only Sig  
2028 AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	11	11	11	12	11	12	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.89			0.99			0.99			1.00	
Flt Protected		1.00			0.98			0.99			1.00	
Satd. Flow (prot)		1595			1751			1766			1797	
Flt Permitted		1.00			0.47			0.83			0.99	
Satd. Flow (perm)		1588			832			1479			1779	
Volume (vph)	5	50	300	80	100	10	85	470	55	10	600	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	56	333	89	111	11	94	522	61	11	667	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	395	0	0	211	0	0	677	0	0	684	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		23.3			23.3			50.5			50.5	
Effective Green, g (s)		24.3			24.3			51.5			51.5	
Actuated g/C Ratio		0.27			0.27			0.57			0.57	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		429			225			846			1018	
v/s Ratio Prot												
v/s Ratio Perm		0.25			0.25			0.46			0.38	
v/c Ratio		0.92			0.94			0.80			0.67	
Uniform Delay, d1		31.9			32.1			15.2			13.4	
Progression Factor		1.00			1.00			1.00			1.03	
Incremental Delay, d2		25.0			42.5			7.8			3.0	
Delay (s)		56.9			74.6			23.0			16.7	
Level of Service		E			E			C			B	
Approach Delay (s)		56.9			74.6			23.0			16.7	
Approach LOS		E			E			C			B	
<b>Intersection Summary</b>												
HCM Average Control Delay			33.2				HCM Level of Service			C		
HCM Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			14.2		
Intersection Capacity Utilization			110.2%				ICU Level of Service			H		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
10: Maple Street & Pine Street

RSG C1 & C2 Only Sig  
2028 PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	11	11	11	12	11	12	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.92			0.95			0.99			1.00	
Flt Protected		1.00			0.98			0.99			0.99	
Satd. Flow (prot)		1650			1688			1764			1787	
Flt Permitted		0.99			0.53			0.78			0.87	
Satd. Flow (perm)		1635			913			1390			1567	
Volume (vph)	10	145	245	80	85	90	110	495	60	55	475	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	161	272	89	94	100	122	550	67	61	528	11
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	444	0	0	283	0	0	739	0	0	600	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		37.0			37.0			66.8			66.8	
Effective Green, g (s)		38.0			38.0			67.8			67.8	
Actuated g/C Ratio		0.32			0.32			0.56			0.56	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		518			289			785			885	
v/s Ratio Prot												
v/s Ratio Perm		0.27			0.31			0.53			0.38	
v/c Ratio		0.86			0.98			0.94			0.68	
Uniform Delay, d1		38.5			40.6			24.3			18.4	
Progression Factor		1.00			1.00			1.00			1.03	
Incremental Delay, d2		13.2			46.7			20.7			3.5	
Delay (s)		51.6			87.3			44.9			22.5	
Level of Service		D			F			D			C	
Approach Delay (s)		51.6			87.3			44.9			22.5	
Approach LOS		D			F			D			C	
<b>Intersection Summary</b>												
HCM Average Control Delay		45.6			HCM Level of Service			D				
HCM Volume to Capacity ratio		0.95										
Actuated Cycle Length (s)		120.0			Sum of lost time (s)			14.2				
Intersection Capacity Utilization		103.7%			ICU Level of Service			G				
Analysis Period (min)		15										

c Critical Lane Group

# HCM Signalized Intersection Capacity Analysis

## 9: King Street & Pine Street

RSG C1 & C2 Only Sig  
2028 AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.92			0.98			0.98			1.00	
Flt Protected		1.00			0.99			0.99			1.00	
Satd. Flow (prot)		1705			1805			1823			1854	
Flt Permitted		0.99			0.64			0.90			0.96	
Satd. Flow (perm)		1689			1175			1644			1779	
Volume (vph)	10	105	185	35	105	25	60	365	55	25	395	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	117	206	39	117	28	67	406	61	28	439	6
RTOR Reduction (vph)	0	67	0	0	7	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	267	0	0	177	0	0	531	0	0	473	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		17.2			17.2			56.6			56.6	
Effective Green, g (s)		18.2			18.2			57.6			57.6	
Actuated g/C Ratio		0.20			0.20			0.64			0.64	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		342			238			1052			1139	
v/s Ratio Prot												
v/s Ratio Perm		c0.16			0.15			c0.32			0.27	
v/c Ratio		0.78			0.74			0.50			0.41	
Uniform Delay, d1		34.0			33.7			8.6			7.9	
Progression Factor		1.00			1.00			0.31			0.72	
Incremental Delay, d2		11.0			11.8			0.4			0.8	
Delay (s)		45.0			45.5			3.1			6.5	
Level of Service		D			D			A			A	
Approach Delay (s)		45.0			45.5			3.1			6.5	
Approach LOS		D			D			A			A	
<b>Intersection Summary</b>												
HCM Average Control Delay			18.4				HCM Level of Service				B	
HCM Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			14.2		
Intersection Capacity Utilization			73.3%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

## 9: King Street & Pine Street

RSG C1 & C2 Only Sig  
2028 PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Fr <sub>t</sub>		0.92			0.98			0.99			1.00	
Fl <sub>t</sub> Protected		1.00			0.99			0.98			1.00	
Satd. Flow (prot)		1711			1813			1824			1847	
Fl <sub>t</sub> Permitted		0.99			0.60			0.75			0.91	
Satd. Flow (perm)		1703			1099			1385			1693	
Volume (vph)	5	130	200	50	160	30	185	390	25	30	290	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	144	222	56	178	33	206	433	28	33	322	11
RTOR Reduction (vph)	0	46	0	0	5	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	326	0	0	262	0	0	666	0	0	365	0
Turn Type	Perm		Perm			Perm			Perm			
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		28.2			28.2			75.6			75.6	
Effective Green, g (s)		29.2			29.2			76.6			76.6	
Actuated g/C Ratio		0.24			0.24			0.64			0.64	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		414			267			884			1081	
v/s Ratio Prot												
v/s Ratio Perm		0.19			0.24			0.48			0.22	
v/c Ratio		0.79			0.98			0.75			0.34	
Uniform Delay, d <sub>1</sub>		42.5			45.2			15.1			10.0	
Progression Factor		1.00			1.00			0.33			0.75	
Incremental Delay, d <sub>2</sub>		9.5			50.0			0.6			0.7	
Delay (s)		52.0			95.2			5.5			8.2	
Level of Service		D			F			A			A	
Approach Delay (s)		52.0			95.2			5.5			8.2	
Approach LOS		D			F			A			A	

### Intersection Summary

HCM Average Control Delay	30.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.2
Intersection Capacity Utilization	95.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

# HCM Signalized Intersection Capacity Analysis

## 5: Main Street & Pine Street

RSG C1 & C2 Only Sig  
2028 AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗		↕	↗		↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Fr <sub>t</sub>		0.93			1.00	0.85		1.00	0.85		0.98	
Fl <sub>t</sub> Protected		1.00			1.00	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1729			1859	1583		1811	1583		1812	
Fl <sub>t</sub> Permitted		0.95			0.97	1.00		0.61	1.00		0.83	
Satd. Flow (perm)		1648			1816	1583		1144	1583		1513	
Volume (vph)	40	185	225	10	235	60	215	165	20	45	190	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	206	250	11	261	67	239	183	22	50	211	44
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	500	0	0	272	67	0	422	22	0	305	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		32.5			32.5	32.5		35.3	35.3		35.3	
Effective Green, g (s)		36.5			36.5	36.5		39.3	39.3		39.3	
Actuated g/C Ratio		0.41			0.41	0.41		0.44	0.44		0.44	
Clearance Time (s)		8.0			8.0	8.0		8.0	8.0		8.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		668			736	642		500	691		661	
v/s Ratio Prot												
v/s Ratio Perm		c0.30			0.15	0.04		c0.37	0.01		0.20	
v/c Ratio		0.75			0.37	0.10		0.84	0.03		0.46	
Uniform Delay, d <sub>1</sub>		22.8			18.7	16.6		22.6	14.5		17.9	
Progression Factor		1.00			1.00	1.00		0.61	0.69		1.00	
Incremental Delay, d <sub>2</sub>		4.6			0.3	0.1		14.0	0.1		0.5	
Delay (s)		27.4			19.0	16.7		27.8	10.1		18.4	
Level of Service		C			B	B		C	B		B	
Approach Delay (s)		27.4			18.6			26.9			18.4	
Approach LOS		C			B			C			B	
<b>Intersection Summary</b>												
HCM Average Control Delay			23.7				HCM Level of Service			C		
HCM Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)		14.2			
Intersection Capacity Utilization			87.5%				ICU Level of Service		E			
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

## 5: Main Street & Pine Street

RSG C1 & C2 Only Sig  
2028 PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↗		↔	↗		↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.96			1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00			0.99	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1794			1846	1583		1799	1583		1824	
Flt Permitted		0.99			0.78	1.00		0.60	1.00		0.74	
Satd. Flow (perm)		1770			1457	1583		1111	1583		1375	
Volume (vph)	10	255	95	65	290	40	260	105	60	65	170	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	283	106	72	322	44	289	117	67	72	189	17
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	400	0	0	394	44	0	406	67	0	278	0
Turn Type	Perm			Perm			Perm	Perm		Perm	Perm	
Protected Phases		2			6			8				4
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		42.2			42.2	42.2		55.6	55.6			55.6
Effective Green, g (s)		46.2			46.2	46.2		59.6	59.6			59.6
Actuated g/C Ratio		0.39			0.39	0.39		0.50	0.50			0.50
Clearance Time (s)		8.0			8.0	8.0		8.0	8.0			8.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)		681			561	609		552	786			683
v/s Ratio Prot												
v/s Ratio Perm		0.23			0.27	0.03		0.37	0.04			0.20
v/c Ratio		0.59			0.70	0.07		0.74	0.09			0.41
Uniform Delay, d1		29.3			31.1	23.3		23.9	15.9			19.1
Progression Factor		1.00			1.00	1.00		0.55	0.55			1.00
Incremental Delay, d2		1.3			4.0	0.1		4.9	0.1			0.4
Delay (s)		30.6			35.1	23.4		18.2	8.8			19.4
Level of Service		C			D	C		B	A			B
Approach Delay (s)		30.6			33.9			16.8				19.4
Approach LOS		C			C			B				B

### Intersection Summary

HCM Average Control Delay	25.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.2
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

## **APPENDIX 3: HISTORICAL / ARCHAEOLOGICAL**

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United States Department of the Interior  
National Park Service

# National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

## 1. Name of Property

Historic name: Pine Street Industrial Historic District

Other names/site number: N/A

Name of related multiple property listing:

N/A

(Enter "N/A" if property is not part of a multiple property listing)

## 2. Location

Street & number: Pine Street from Maple Street to the foot of the Barge Canal, including parts of South Champlain Street, Battery Street, Kilburn Street, Marble Avenue, Pine Place and the shore of Lake Champlain

City or town: Burlington State: VT County: Chittenden

Not For Publication:

Vicinity:  N/A

## 3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this X nomination \_\_\_ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property \_\_\_ meets \_\_\_ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

\_\_\_ national      \_\_\_ statewide      X local

Applicable National Register Criteria:

X A      \_\_\_ B      X C      X D

<p>_____  <b>Signature of certifying official/Title:</b>  <u>Vermont Division for Historic Preservation</u>  <b>State or Federal agency/bureau or Tribal Government</b></p>	<p>_____  <b>Date</b></p>
---	-------------------------------

Pine Street Industrial Historic District  
Name of Property

Chittenden County, VT  
County and State

In my opinion, the property \_\_\_ meets \_\_\_ does not meet the National Register criteria.

---

<b>Signature of commenting official:</b>	<b>Date</b>
<b>Title :</b>	<b>State or Federal agency/bureau or Tribal Government</b>

**4. National Park Service Certification**

I hereby certify that this property is:

- \_\_\_ entered in the National Register
- \_\_\_ determined eligible for the National Register
- \_\_\_ determined not eligible for the National Register
- \_\_\_ removed from the National Register
- \_\_\_ other (explain:) \_\_\_\_\_

---

Signature of the Keeper	Date of Action
-------------------------	----------------

**5. Classification**

**Ownership of Property**

(Check as many boxes as apply.)

- Private:
- Public – Local
- Public – State
- Public – Federal

**Category of Property**

(Check only **one** box.)

- Building(s)
- District

Pine Street Industrial Historic District  
 Name of Property

Chittenden County, VT  
 County and State

Site

Structure

Object

**Number of Resources within Property**

(Do not include previously listed resources in the count)

Contributing	Non-contributing	
<u>21</u>	<u>16</u>	buildings
<u>13</u>	<u>4</u>	sites
<u>5</u>	<u>0</u>	structures
<u>0</u>	<u>0</u>	objects
<u>39</u>	<u>20</u>	Total

Number of contributing resources previously listed in the National Register 0

**6. Function or Use**

**Historic Functions**

(Enter categories from instructions.)

INDUSTRY: manufacturing facility

INDUSTRY: processing site

INDUSTRY: industrial storage

COMMERCE/TRADE: (archaeology) trade

COMMERCE/TRADE: specialty store

TRANSPORTATION: rail-related

TRANSPORTATION: water-related

DOMESTIC: single-dwelling

GOVERNMENT: public works

Pine Street Industrial Historic District  
Name of Property

Chittenden County, VT  
County and State

**Current Functions**

(Enter categories from instructions.)

COMMERCE/TRADE: specialty store

COMMERCE/TRADE: business

COMMERCE/TRADE: professional

COMMERCE/TRADE: archaeology

LANDSCAPE: underwater

TRANSPORTATION: rail-related

TRANSPORTATION: water -related

TRANSPORTATION: pedestrian-related

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## 7. Description

### Architectural Classification

(Enter categories from instructions.)

Italianate

No Style

**Materials:** (enter categories from instructions.)

Principal exterior materials of the property: concrete, asphalt, brick, wood, iron.

### Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and non-contributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

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### Summary Paragraph

The Pine Street Industrial Historic District (the “District”) encompasses a one-half mile long section of Pine Street in what is known as Burlington’s “South End”, stretching from Maple Street south to the southern tip of the barge canal and from the east side of Pine Street into the shoreline of Lake Champlain. Included within the district are several maritime resources and archaeological sites associated with early industrial, maritime commercial and rail activity. Developed as an industrial and manufacturing center adjoining the City’s waterfront and rail yard, the District also includes several commercial buildings. Collectively, the resources in the District represent a spectrum of industrial, commercial, and transportation-related architecture and infrastructure that dates from the mid-19th century to the mid-20th century. Architecturally, the buildings are simply detailed and built of durable materials. They maintain a low profile, with the tallest building rising to four stories. The appearance and use of most of the buildings has evolved over the years, with some now sheathed in modern siding and the industrial buildings taking on new uses to keep them viable. The District retains historic integrity of location, design, setting, materials, workmanship, and association. The feeling of the District, however, has gradually transitioned from heavy industry to a more light-industrial/commercial character and since the early 1990s it has become known as an incubator for entrepreneurs and artists.

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## Narrative Description

Development of the city did not extend much further south than Maple Street in the mid-19<sup>th</sup> century, but that changed with the arrival of the Rutland and Burlington Railroad and related infrastructure in 1849. The land encompassed by the District is largely flat, making it a favorable area for industrial development serviced by rail, water and vehicular transport. Beyond the eastern edge of the District the terrain begins its steep ascent uphill, where the development is more residential in nature. With rail serviced established, development advanced quickly and spurred the construction of the Pine Street Barge Canal Basin (HD #21) and its Breakwater (HD #21j) in 1868-69. At the same time, Kilburn Street and later Marble Avenue, Pine Place, and Howard Street (all running eastward, uphill from Pine Street) were laid out as the industrial development moved further south long Pine Street. Significant residential developments south and east of the District appeared in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, bookending the industrial area between the civic and commercial heart of the city to the north and residential neighborhoods to the south. As such, by the early 1930s sidewalks and streetlights were installed along one or both sides of Pine Street, making the area hospitable to pedestrians traveling through the industrial area from their South End homes to the downtown area. Although the large, brick manufacturing buildings maintain their architectural and physical integrity, the former gritty industrial feeling of the corridor has been diminished as new uses have filled buildings formerly utilized for heavy industry or commerce. Abandoned railroad sidings, concealed by tall grass, remain in place and signify the industrial past of the area.

The Pine Street Barge Canal Basin (HD #21) and the Burlington Rail Yard (HD #1-1g) remain today as intact and significant markers of the District's earliest industrial heritage. Each contains significant resources, both above and below ground and underwater. Maritime resources both within the canal and the canal breakwaters illustrate the breadth of commercial activities and the evolution of transportation associated with Burlington's waterfront from the early decades of the 19<sup>th</sup> century to the 1960s.

The 1869 Kilburn and Gates building on the corner of Pine and Kilburn Streets (HD #11) was the first factory to be built in the District and is one of the oldest industrial buildings in the city. This large structure spans the entire block between Pine and St. Paul Streets and, although altered to accommodate a range of uses, has remained in active use through many economic ups and downs – housing a furniture manufactory (1869), a cotton mill (1890), and a printing plant (1930). Today, it is home to several small companies and professional offices.

Several other brick commercial and manufacturing buildings, including the multi-story Malted Cereal Company (HD #19) and Welsh Brothers Maple Company (HD #15) complex, remain intact. Bullocks Standard Steam Laundry (HD #6) and White's Pure Milk Products (HD #10) date from the early 20<sup>th</sup> century and also contribute to the District's historic integrity. The largest contributing entity is the complex of structures at the corner of Pine and Howard Streets (#20-20c) constructed in the first quarter of the 20<sup>th</sup> century by the E.B. and A.C. Whiting Company. Buildings for drying, combing, dyeing, packing, and shipping of brush fibers were added to the

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main factory and storage buildings as the business expanded. These structures remain intact today and house retail businesses, offices, and numerous artist studios.

Pine Street has undergone a revival in the past three decades, with a new generation of entrepreneurs redeveloping the old industrial buildings to keep them viable in today's economy. It is now the center of a vibrant art and artisan community in Burlington's South End.

### **1. Burlington Rail Yard, 1849, Lavalley Lane, Contributing**

The Rutland and Burlington Railroad laid track to the Burlington waterfront in 1849, and the main rail yard remains active today. Located on the western edge of the city adjacent to Lake Champlain on land owned by the State of Vermont, it is the northern terminus for the Vermont Railway, which operates the yard. The yard serves as a freight transfer center, maintenance facility, and storage area. The main track runs from south of the Drawbridge (HD #22) straight through the yard and continues north beyond the District boundary. Nine active tracks, each with a specific function, run east of the main track; functions include freight staging and switching, a dock and ramp facility, tank car storage, and transfer of petroleum and stone products. Five tracks run west of the main track and are used for staging freight cars, commuter rail staging and layover, storage of broken or damaged equipment, and transfer to the engine house.

#### **1a. Vermont Railway Headquarters, 1985, 0 Lavalley Lane, Non-contributing due to age**

The Vermont Railway is headquartered in a one-and-a-half-story, wood frame structure sheathed in clapboards with a gable roof of standing seam metal. It has three rectangular sections with the largest middle one projecting slightly forward and housing the main entrance, which also projects with a gable-roofed shelter over the glassed-in entryway. Large wooden brackets are placed under the eaves on all four sides. Pairs of vinyl windows are in the two end sections and flank the entrance in the center section. The south side has four of the same windows on the first story and two smaller ones centered in the peak of the gable; the north side has a centered glass entry door sheltered by a gabled hood supported by brackets and a small window centered in the peak. The roof on the east side of the two end sections has a peaked gable perpendicular to the main roof. There are three windows and one centered in the peak and a large vent in the center section.

#### **1b. Railroad Engine Roundhouse, 1916-18, Lavalley Lane, Contributing**

The existing roundhouse replaced an earlier roundhouse that was located to the east and burned in 1914. The west and east elevations of the engine house are brick laid in American bond with five bays delineated by brick piers; the central three bays are two full stories and the end bays one. Each bay has pairs of tall narrow window openings set in brick relieving arches. Fenestration patterns remain intact, although many window openings are infilled. The southernmost window on the west side has been filled in to accommodate a door, and the northernmost opening on the east façade is a doorway. All windows have concrete lintels and sills.

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The concave south elevation features seven train entries, with tracks from the turntable (HD #1c) leading to each opening. The convex seven-bay north elevation is delineated by brick piers, and each bay has three tall windows (some infilled) and concrete lintels and sills. The third bay from the west retains a small six light steel frame window which appears to be original. The sixth bay has been rebuilt to accommodate one large vehicle entry.

### **1c. Turntable, ca 1940, Lavalley Lane, Contributing**

Located directly south of the Railroad Engine Roundhouse (HD #1b) is a turntable measuring ninety feet in diameter and set into a concrete-lined circular pit with a track running around the inside edge at the bottom. The turning mechanism runs around this track, connecting segments of track on either side. The turntable has a single track that accommodates one piece of equipment at a time with a curved metal guardrail on either side. Construction of the new Railroad Engine Roundhouse in 1916-18 included a new turntable pit, which was upgraded ca. 1940 with the present equipment.

### **1d. Pumphouse/Boiler room, ca 1920, Lavalley Lane, Contributing**

A one-story, rectangular boiler room of common bond brick with a gable roof sheathed in asphalt sits east of the Railroad Engine Roundhouse. The nine-bay east elevation has six six/nine double hung windows with round-arched brick lintels and concrete sills. Doors fill the third, fifth, and ninth bays; the first has double wood doors with a five-light transom above, the second and third are six-paneled wood doors with arched tops like the windows, but the third one has been filled in to accommodate a new vinyl door. The west elevation has a doorway, two windows, two pairs of windows, another window, and another filled-in doorway; all windows are six/nine double hung sash and all openings have segmental brick arches. The north side has one six/nine windows and an infilled doorway. The south elevation has doors on either side of a six/nine window, all topped with rounded brick arches. The bottom sash of the window is boarded in.

### **1e and 1f. Salt Sheds, ca 1970, Battery Street, Non-contributing due to age**

Two large rectangular all-metal buildings with gable roofs and raised concrete foundations house salt. The larger of the two (#1e) has a full-height opening with a sliding door on the west side, an entry door and two loading docks on the east, and no openings on north and south. The other (#1f) has no openings on west, south, and east; the north side has an entry for trucks picking up salt.

### **1g. Shelburne Limestone building, c. 2010, Non-contributing due to age**

This metal sided, shed roofed, two bay structure is constructed over existing rail tracks, allowing for the entrance of railcars. The westerly bay is higher than the easterly, accommodating tanker style cars.

## **2. Warehouse, 1919, Dwelling/Office, 216 Battery Street, Non-contributing due to alterations**

This two-story, nearly square structure with a hipped metal roof with extended eaves was built as an ironclad warehouse in 1919, but it was converted to residential use in 1981. It has a concrete foundation, and is sheathed in new metal siding on the north and east elevations and clapboard

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siding on west (front) and south elevations,. The north elevation has no openings; the rest of the elevations have altered and highly irregular fenestration including assorted new and replacement doors and sash. The façade has an assortment of windows and doors and a second story deck supported by large metal brackets and cables from the roof. A shed-roof dormer over the deck has three windows.

The south elevation has a shed-roofed extension with a window, entry door, and garage door, then two windows. The second story has a wooden deck over and partly supported by the first-story extension with sliding glass doors and a single glass door plus one window. The east elevation has another second-story deck ending in metal stairs leading up to another roof dormer and seven one/one double hung windows on the first story and four one/one double hung windows on the second.

Two windmills, solar panels covering the south slope, various whirly gigs, a wrought iron fence, a vertical “Rambler” sign projecting from the south elevation and old stovepipes on the roof reflect the building’s much-altered state.

### **3. Champlain Valley Fruit Company, 1909/c. 1920/c. 1930/1952, 241-243 South Champlain Street, Contributing**

This long, narrow series of connected buildings measures 300’ from north to south. For many years, it housed the Champlain Valley Fruit Company, which began in 1915 and was originally located at 171 Battery Street. In 1918, the company moved to South Champlain Street by purchasing a warehouse and refrigeration plant built in 1909 by Wilson & Gaul.<sup>1</sup> Today, the buildings are referred to collectively as the “Independent Block”. This interconnected series of five buildings reflects the growth and development of the Pine Street industrial area. Its location provides immediate access to the rail and road transportation network. While the buildings have evolved and changed over the decades, they still reflect the industrial past of the complex and portions continue to be used for cold storage of bulk goods.

Looking westward at the facade, each component is described from left to right:

- The southernmost portion is a massive, one-story, flat-roofed concrete block building with four windows and a single loading dock door opening onto South Champlain Street. A railroad siding runs directly behind the building. It was constructed c. 1955 and served as warehouse space for the Champlain Valley Fruit Company.<sup>2</sup>
- The next section incorporates the 1909 Wilson & Gaul building, which was updated in 1952 with a modernist façade and a second story at the front of the building designed by

<sup>1</sup> *Burlington Weekly Free Press*, July 27, 1909. This article reports that Wilson & Gaul are “having a new three-story [sic] brewery storehouse put up on South Champlain Street.”

*Burlington Weekly Free Press*, “Warehouse Sold,” March 28, 1918. This article incorrectly states that the address of the warehouse is 234 South Champlain Street; it is actually 243 South Champlain Street.

<sup>2</sup> An aerial photograph of the Burlington waterfront dated 1953-1959 shows that this warehouse space had been built at the time.

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Whittier & Goodrich, a local architectural firm. The first story is brick and the second story is clad with wood and metal panels and bands of windows. The building has a flat roof. Projecting molding outline a double height entranceway with a window above a door set in a surround of molded, corrugated translucent glass. The same projecting molding outlines the second story and all its openings. The second story has gangs of three vertical-pane windows, one to the left and two to the right of the entrance panel; a fourth set has four panes. Windows on the first story also have vertical panes, but have a second smaller pane at the bottom. There is a gang of three to the left and two to the right of the door and then a single pane and a double entry door. The door is reached by concrete steps and a landing running across the front of all three sections. The west (rear) side of this section is built of concrete block. Ten single-pane windows are evenly spaced across the second story, and the first story has a flat-roofed metal enclosure extending out, and it has five loading dock entries. On the interior, evidence of early 20<sup>th</sup> century construction is visible in the form of massive timber posts and floor beams, poured concrete walls and floors for cold storage, and very closely spaced floor joists to support the weight of produce and liquor cases stores above.

- The next section is a two-story brick building built between 1926 and 1940 to fill the gap between the 1909 Wilson & Gaul Building on the left and the 1926 G.S. Blodgett Warehouse on the right. The building has a flat roof. It has five windows with vertical panes atop rectangular panes on the second story. The first story has two large shop windows flanking a double glass door topped by a glass panel. The ground slopes to the west, giving the rear (west) elevation three stories. It has replacement sash in three openings under concrete lintels in the third story, six one/one double hung windows on the second story, and four slightly larger one/one double hung windows with concrete lintels on the first story. The 1942 Sanborn map identifies this space as cold storage.
- The next section is two stories with a low-pitch gable-front roof. It is clad in vertical metal siding. A building in this location first appears on the 1926 Sanborn Map, occupied by the G.S. Blodgett Co. Inc./Wholesale Plumbing Supplies. It has six one/one double hung windows on the second story and five windows with a pair of vertical panes under a horizontal one and then an entry door on the first story on the front. The rear elevation has three sliding windows in the third story, the same double vertical panes under a horizontal pane on either end, and three windows with triple vertical panes in between on the second story. Five smaller versions of the two vertical under horizontal paned windows are on the first story along with a glass entry door. All windows in this section are of vinyl. On the interior, the light wood framing of the building is exposed in several areas indicating its construction in the 1920s. The 1942 Sanborn map shows that this space was still used by G.S. Blodgett. The 1950 map, however, indicates that by this date it was owned by the Champlain Valley Fruit Company and used for produce storage.
- The northernmost section is another infill structure, built c. 1960 based on concrete and metal construction visible on the interior. It presents a blank, metal-clad one-story wall on South Champlain Street. The building is accessed at grade in the back via a single

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loading dock door. It is sandwiched between the north wall of c. 1920 Blodgett building and a large concrete retaining wall. The top of the north wall, at the same grade level as South Champlain Street, is a remnant wall from a large auto garage that used to stand immediately to the north. The remnant wall is built of rock-faced concrete block and probably dates to the 1930s.

#### **4. National Biscuit Company, 1923, 266 South Champlain Street, Contributing**

A two-story, flat-roofed, brick commercial building has an original one-story, flat-roofed ell extending to the south; both main block and ell have a stepped roof parapet (protected by metal caps) on the façade and rest on a raised concrete foundation. A small, metal-clad, flat-roofed, rectangular projection at the juncture of main block and ell has a loading dock on its south side. The front (west) side of the main block has two one/one double hung windows centered in the second story and an entry door and two loading dock doors on the first story. The loading docks have been filled in with wood paneling, each with a pair of windows, and are topped by wooden molded pedimented hoods supported by pairs of large wooden brackets; small windows at the basement level under each loading dock door have been filled in. The façade of the ell has five pairs of one/one double hung windows; one window in the second and third pairs has been filled in; each pair of windows has the same basement-level openings, now filled in.

Three pairs of double hung windows are evenly spaced across the second story of the main block's south side; the first pair retains the original six/six sash, all others are replacements, and a door has been inserted between pairs two and three. The south elevation of the ell has three pairs of one/one windows. The east elevation has a pair of windows centered on the second story and a pair on the south end and a single window on the north end on the first story. The ell has two pairs of windows, a loading dock, two more pairs of windows, and another loading dock filled in with an entry door. All openings on the east side have windows in the basement level, covered with wire mesh to allow air circulation. All windows are one/one vinyl replacements unless otherwise specified and have concrete sills; all openings have splayed brick lintels.

#### **5. Bobbin Mill Condominiums, ca 1983, 235 Pine Street (historic address)/234 South Champlain Street (present address), Non-contributing due to age and alteration**

This condominium development has four two-story rectangular sections running parallel to Pine Street, with alternating sections set back from its neighbors. A gable-roofed, enclosed exterior staircase projects from each section. Renovations in 2014 included replacement vinyl siding and windows with new asphalt-shingles on the gable roofs.

Located to the west of these ca 1983 condominiums is the former Vermont Spool and Bobbin Mill (built 1905), which is listed in the National Register of Historic Places as a contributing resource in the adjacent Battery Street Historic District (1984 Amendment).

#### **6. Bullocks Standard Steam Laundry, ca 1925, 257-277 Pine Street, Contributing**

This one-story, flat-roof, rectangular commercial building has a brick front, the top of which is modestly decorated by two parallel rows of slightly projecting paired courses of brick stretchers; the rear addition is constructed of both rock-faced and plain concrete block. The southern half of

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the façade has sets of five large plate-glass replacement windows in the original openings flanking a double entry door, all with splayed brick lintels and brick sills. The northern half has fewer openings, and all may be later alterations – a door, a plate window, and a double hung window. The north elevation has three double hung windows in the front section and one in the rear addition. The southern elevation has one large window like those on the front and a doorway; an opening for vehicle entry near the rear corner has been bricked in. The rear elevation has several vehicle entry and loading dock openings, now closed in. A small wooden entryway projects from the rear elevation and provides a handicapped access ramp. The laundry was built on the site of various small structures of J. W. Goodell's stone manufactory by 1925, when it was listed in the Burlington City Directory. Today, it houses a number of retail and service businesses.

**6a. Storage shed, ca 1990, Non-contributing due to age**

A double-height, all-metal, T-shaped warehouse has a shallow gable roof and concrete foundation with a single vehicle opening on the east side and a double vehicle opening on the south; it stores carpeting for a retail business in the main building.

**6b. Vermont Art Supply, ca 1990, Non-contributing due to age**

A 1988 fire destroyed all historic fabric of what had been the stone-processing shed and showroom for J. W. Goodell's stone works. The existing building is a one-and-a-half story, gable roof structure with a concrete foundation and clapboard siding. The gable-front end has a three-part Palladian-style window (created from the same single-pane sash used throughout the building) centered in the upper story and a metal entry door, window, and vehicle entry door on the first story. The south elevation has seven windows. The north elevation has a full-length wall dormer with windows and doors; an exterior stair leads to a second-story balcony that spans the length of the building and provides access to the second story spaces. Openings include a window, two doors, four windows, two doors, and two windows, from east to west. The first story has two vehicle openings with garage doors and four windows. All windows have two side-by-side sliding sash.

**7. M. & F. C. Dorn Bottling Works, 1919, 266 Pine Street, Contributing**

The small rock-faced cement block bottling works first built in 1919 has been expanded repeatedly over the years into the current sprawling, multi-part complex. An ell was added to the east end by 1938 and the main block enlarged into a much bigger, two-story, L-shaped building, also of rock-faced cement block and topped by a flat roof. By 1960, the void of the L had been almost completely filled in, leaving only a small setback on the front (west) side. A nearly square, two-story, rock-faced cement block, flat-roofed garage and storage building was also added at this time, just to the east and north (catty corner to) the main building. Since then the two buildings have been connected by infills on both sides. A two-story but slightly taller concrete block ell with vertical wooden siding on the second story and a shed roof connects the two on the south and east sides; a shallow gable-roofed, one-story, metal warehouse structure connects them on the west and north sides. Most of the small setback on the front (west) side has also been filled in with a single-story, concrete block, flat-roofed addition.

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The section of the original structure facing Pine Street has three nine/one double-hung windows in the second story and two large plate glass shop windows on the first story, below which are single fixed-pane windows at the basement; all windows have concrete lintels and sills. The concrete block infill to the north has a door and two six-pane fixed sash windows. A large entry with a garage door fills the north end of the infill. This infill obscures most of the older building's brick front wall topped by a parapet, the west side of which has one and the north side two large shop-type windows with a horizontal fixed pane above two vertical fixed panes. The metal infill structure has a vehicle entry on the west side and entry doors on the north. The west side of the garage/storage building has five pairs of one/one double-hung sash with concrete lintels and sills evenly spaced across the second story. The first story has a new shop front with two glass doors, each flanked by pairs of fixed-pane shop windows; this entry is covered by an awning. A covered stairwell has been added on the north side. The north side has one three-pane fixed sash window, and the east side has the same windows as the west.

The south side of the 1938 building has twelve six/six double-hung sash on the second story arranged in two groups of six with an empty bay between; the first story has the same pattern of openings, but they have been filled in or had sash replaced. The back corner of this building is a single story built of plain concrete block and has a double entry door in what may once have been a loading dock entry. The concrete block rear connecting structure steps back and attaches here.

#### **8. Burlington Venetian Blind Company Office, c. 1930, 270 Pine Street, Contributing**

This flat-roofed building rests on a raised concrete foundation. The central front door is flanked by large shop windows; the second story has two/two double hung windows above those on the first story. The south elevation has windows in all bays on the first story and in the first and third on the second story; all are double hung with two/two sash. Plain wooden trim frames windows and doors as well as cornerboards. A two-story rear ell appears historic; it has an entry door and two windows on the first story and a window in the second bay above. A more recent one-story shed-roof addition extends to the east behind it and has one door and one window. All windows in the two ells are one/one. The Burlington Venetian Blind Company factory was located immediately south of this building, at the corner of Kilburn Street and Pine Street. It is no longer standing.

#### **9. Curtis Lumber, ca 1985, 315 Pine Street, Non-contributing due to age**

This retail building supply store – formerly T. A. Haigh and Company – was built on the site of the Barnes and Holt Spool and Bobbin Company (ca 1885) and destroyed by fire in 1980. The historic shed was not rebuilt, and the main building is new construction. The one-story retail section facing Pine Street is backed by a massive double-height metal warehouse structure. An enclosed entryway projects from the front of the building; it has a steep-pitched gable roof and glass entry doors on either side (north/south).

#### **9a. Shed ca 1990s, Non-contributing due to age**

A small, one-story shed with an asphalt shingle roof and vertical board siding appears to be a prefabricated structure. It has a door and two pairs of windows on the front (Pine Street) side. It

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houses an office.

### **9b. Lumber shed, ca 1980, Non-contributing due to age**

Large double-height gable-roof storage shed with steel I-beam and dimensional lumber frame, sheet metal roof and siding.

### **10. White's Pure Milk Products, 1928/1945, 20 Kilburn Street, Contributing**

First built by White's Pure Milk Products ca 1928, this rectangular concrete block and brick flat-roofed building was significantly enlarged by the Borden Company around 1945. The brick front faces Kilburn Street (south) and steps up the hill in three sections. The first section had two openings for vehicle entry, both of which have been filled in with shopfront glass and entry doors for retail and studio use. The middle section has a pair of metal nine/nine double hung windows flanking a modern metal door with glass panel. The third and largest section on Kilburn has three nine/nine metal windows in the first, second, and fourth bays and two small nine/nine windows in the third.

The seven-bay western elevation is of concrete block. The first (north) bay has a vehicle entry with a modern garage door and the second an entry door. The same nine/nine double hung metal windows are in bays three to seven. The eastern elevation is also of concrete block.

### **11. Kilburn and Gates, 1869/1988, 7 Kilburn Street, Contributing**

This massive, 400' long, two-story building on a raised red stone foundation and topped by a shallow gable roof was originally part of the Kilburn and Gates factory complex constructed in 1869. Shortly after completion, the local press claimed it to be "the largest furniture factory in the United States, if not the world."<sup>3</sup> The L-shaped building was designed by Burlington architect E.C. Ryer and spans the length of Kilburn Street.<sup>4</sup> At the east end is the brick engine house with a 115' tall, square, brick chimney. Partway up the chimney, on the east side, is a marble plaque engraved with the date "1869". Extending to the west from the engine house is the wooden factory building, measuring 360' feet in length and 50' in width. Rehabilitated in 1988 for commercial rental, the factory building has heavy iron buttresses that date from the 1930s along the north elevation and nine/nine windows throughout. Plain wooden trim is found around windows and doors and at corners.

The eleven-bay north elevation faces Kilburn Street with each bay separated by an iron buttress set on a poured concrete base. The Pine Street (west) elevation has five windows on both first and second stories. The redstone foundation is fully exposed, with asymmetrical window placement at the second, third, and fourth positions. All foundation-level windows have double-hung sash and are smaller than those above. The south elevation lacks the supporting buttresses and has a large addition containing a restaurant/brewery and a United States Postal Service distribution facility.

### **12. Hulbert Supply Company, Inc., 1959, 332 Pine Street, Contributing**

<sup>3</sup> *Burlington Weekly Free Press*, "Kilburn and Gates Furniture Factory," December 8, 1871.

<sup>4</sup> *Burlington Weekly Free Press*, "The Pioneer Shops," April 9, 1869.

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This concrete block building with an arched roof was built in 1959 by the Hulbert Supply Company. The seven- by nine-bay building has an arched corrugated metal roof and a raised concrete foundation. The west elevation has pairs of sliding windows in the first six bays and two small double hung windows in the seventh and corrugated metal in the gable arch above the business name. All entrances are on the south façade, and projecting piers one concrete block wide separate the nine unevenly spaced bays. A concrete stairway leads to a small porch and a glass entrance door in the first bay, the second bay has a sliding window like those on the front, and the third bay a sliding window and a bricked-in window opening. The next section has a stairway to a landing with an entry door and then a large recess with three loading dock openings regularly spaced with piers separating them. The three last bays have vehicle openings, separated by piers. The northern elevation has no openings and nine of the concrete block piers regularly spaced. A double-height metal warehouse with a shallow gable roof is attached at the eastern end and forms an L with the main block. Its western elevation has two loading docks and one vehicle entry; the north wall is of concrete block.

**13. Burlington Street Department, 1934/1954/1969/1974, 339 Pine Street, Contributing**

This long, narrow, rectangular brick building extends west from Pine Street and was built in four phases. Phase I, built 1934, was funded by the federal Public Works Administration (Project #2215). The original structure, as shown in Figure 1, consisted of a one-story brick building with an office at the east end and seven large garage bays – three with doors and four without doors. Attached to the west end of the brick building was a ten-bay repair shop, framed with steel beams and open on the north elevation. The south elevation was a brick wall with evenly spaced metal windows. At the west end of the repair shop was a two-story, brick, storage building. These original structures have flat roofs, concrete foundations, and bricks set in common bond with headers every sixth row.

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Figure 1. View looking southwest at the recently completed Burlington Street Department facility in 1934.  
Photograph by Louis L. McAllister, courtesy of UVM Special Collections Library.

The east elevation of the building, facing Pine Street, has a stepped parapet wall set off by a row of vertical bricks; an area framed in brick enclosed a sign that read "Central Plant." Four metal windows with fixed four-light sections at top and bottom and an eight-light section in the center are evenly spaced across the façade. Windows have vertical brick lintels and concrete sills. Likewise, the north elevation of the one-story brick building has a stepped parapet wall set off by a row of vertical bricks; an area framed in brick encloses a sign that reads "Burlington Street Department". The three-bay two-story section has another stepped parapet wall on the north elevation with the same brick-framed recess for a sign that read "1865-1934."

Today the left half of the north elevation of the one-story brick building is concealed by the Phase II addition. The right half of the elevation has three overhead garage doors flanked by access doors. The next section still has ten bays, all of which are enclosed with overhead garage doors except for bays six and seven, which are infilled. All vehicle entries have the same vertical brick lintels seen on the windows. Both levels of the two-story brick building have central entries

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flanked by twelve-light metal windows, a vehicle entry on the first story and double-door loading entry on the second.

Phase II, built 1954, added a one-story, wood-framed addition onto the left half of north elevation of the one-story brick building. Designed by Street Department engineers and built by Street Department crews, the Phase II addition housed Street Department offices that were relocated from City Hall. The one-story, square addition has a flat roof and plywood siding. All windows have muntins running horizontally and doors have the same horizontal panes, creating a distinctive look. The east elevation has four pairs of two/two double-hung wooden windows and two, much smaller, windows of the same design. A shed-roofed extension on the north elevation shelters a fenced-in storage area, obscuring a door with sidelights, a block of nine horizontal-sash windows, paired three-horizontal pane windows, and another door with four horizontal panes. The west elevation has three, three-paned window groups flanking a paired set of three-pane windows.

Phase III, built 1969, extended the original building further to the west beyond the two-story brick building. This addition contained four-bay mechanic shop, tool crib, office, and three bays of equipment warm storage. This addition is constructed of different brick set in running bond; openings include a nine-light window and entry door, then seven vehicle entries with garage doors.

Phase IV, built 1974, added a small wood-framed addition to the west elevation of the Phase II addition. The southern elevation of the complex has windows running its entire length, with vertical brick lintels and concrete sills. Most lights retain original glass; sometimes it is missing or replaced. The first sixteen windows are the same four-, eight-, four-light configuration found on the east side. Starting from the east end, there are two windows, a smokestack, eight paired sets of windows (the first two have been bricked in), and another smokestack. Ten nine-light windows spaced widely come next; the tenth window is bricked in. The two-story section has three twelve-light windows evenly spaced on each story. The next one-story section has twenty-four light windows with no lintels, but with concrete sills. The western elevation has a single metal entry door at the south end.

**13a. Chittenden Solid Waste District Drop-off Center, 1980, Non-contributing due to age**  
An all-metal, rectangular structure with a shallow gable roof and large entry on the north side sits just west of the Burlington Street Department building. It is a collection point for recycled materials.

**13b. Chittenden Solid Waste District Drop-off Center, 1990, Non-contributing due to age**  
A second, much smaller, all-metal building with a shallow gable roof has a door and window on the west side; it houses the cashier.

**14. Meunier Store/Glove Factory/Dwelling, 1901, 1-5 Pine Place, Contributing**  
Three-story Queen Anne style dwelling has a slate-covered gambrel roof and a concrete foundation. The house has been covered in vinyl siding and has all new one/one double hung

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windows. A distinctive, canted section on the northwest corner was added by 1942; it has a slate gable-roofed porch on the third story with turned posts and Italianate-style bracket supports and a turned balustrade. The canted section has windows on all three sides on the first and second stories. Another distinctive, Italianate feature is the row of brackets (identical to those on the porch) running under the eaves on the north (front), west, and south sides and on a one-story ell at the rear. The front faces north (Pine Place) and has a two-story porch, added by 1920, with a covered exterior stair giving access to a second-story door; the porch with square posts and railing appears to be all new. Windows flank the central doors on first and second stories; the upper story has a third window to the west.

The west side, facing Pine Street, has three windows on the first story, two in alternate bays on the second, and three above the first story windows on the third story. The southern elevation has windows in bays one, three, and four on the first and second stories and gable-roofed dormers in bays one, three, and four on the third story. The east elevation has an exterior stair to the second story leading to a landing and entry door and then continuing to the third story and a flat-roofed porch. The building historically had a rear porch (by 1920), but it's difficult to determine how much of the existing one is new material.

The building was constructed by Augustin Meunier, who operated a small grocery store on the first story and lived in the upper storys with his wife Josephine and family. Meunier died in 1908, and his sons Arthur, Fred, Louis and Emanuel opened a glove manufacturing business with the moniker *Meunier Brothers*. The glove factory was out of business by 1917. Members of the Meunier family continued to reside here into the late 1930s; the building has been an apartment house since.<sup>5</sup>

### **15. Welsh Brothers Maple Company, 7 Marble Avenue (historic address)/400 Pine Street (current address), 1917/1938, Contributing**

Burlington architect Frank L. Austin designed this distinctive factory, with the main block facing Marble Avenue and four large storehouses to the east and south. The two-story, flat-roofed, main building is constructed of brick set in common bond and rests on a raised poured concrete foundation. The three-bay front has brick piers separating the bays and is topped by a stepped parapet wall; projecting piers at the two front corners have an inset in basket weave pattern. The central entry door has a molded pediment supported by brackets, both of redstone, sheltering a pedimented frame with the date 1917. Pairs of windows, each pair under a single continuous concrete lintel, flank the central front door; all have replacement glass. The second story has two windows with concrete lintels and sills in each bay, the three on the eastern end have been replaced with one/one sash, but the remaining original metal windows have fixed four-lights at top and bottom with an eight-light center sash that tilts to open. The western elevation has seven bays, also delineated by brick piers. The second story retains the original four-, eight-, four-light metal windows, two in each bay. All first-story windows are replacements – a four-light awning top and a fixed eight-light bottom, presumably replicating the missing originals. Replacements fill the original openings, but do not have true divided lights.

<sup>5</sup> Norwood, Karyn, *From Cereal to Can Openers: Historic Industries along Pine Street*, <http://www.uvm.edu/~hp206/2013/pages/norwood/index.html>.

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The pier separating the second and third bays on the southern elevation is much deeper than the others and houses a chimney. Each bay has two windows, the same original windows on the second story and the same replacements on the first as those on the west side. Only part of the east side of the main block is visible, as the first storehouse is attached along this façade. It has pairs of twelve-light metal windows on either side of entry doors on both stories; all four windows to the north are one/one replacements. A modern wood stairway attached to the east side provides access to the second story and a second metal exterior stair continues to the roof. Finally, a one-story, rectangular, metal structure has been erected on the roof.

Four rectangular, one-story, flat-roofed, brick ells were added to the main block over time, to serve the growing needs of the company. The first was part of the original construction; attached along the east elevation and extending beyond the main block to the south, it creates a courtyard that once had a one-story infill, but is now open with concrete steps and access ramp. The ghosting of the demolished section is visible on west and south walls. The addition has three bays and parapets on the west and south sides similar to that on the front of the main block. Three one/one double hung replacement windows and a replacement entry door retain the original concrete lintels and sills on the west side; this is the entry to 388 Pine Street.

The second and third storehouses were added by 1938. The second is a trapezoid that extends east and south from the southeast corner of the first addition. The south elevation runs at a slant and a curved loading dock fills the corner recess between the two buildings and the space created by the canted wall. It appears that the southern wall was substantially rebuilt with concrete block; it has several modern windows and doors (window, door, window, window, door, window, west to east). The third storehouse is L-shaped and wraps around the north and east sides of the second addition. The long leg of the L extends beyond the second addition to the south, which houses a loading dock entry.

The addition of these ells created a large recess between the first and third storehouses along the northern side. The fourth addition filled this space, creating a long elevation to the east; it has three stories because the land slopes down to the north. The third story has four large sliding windows, the second story has one odd glass-filled opening, and the first story has four doors in various locations and two of the windows per the third story. A new, curved brick entryway at the northeast corner provides access. Four two-pane sliding windows are visible on the second story of the south and west sides. A small, square, one-story brick section was also added at this time, positioned in the corner of the L created by the main block and addition. It has two pairs of two/two double hung windows on the east side and four small two-light horizontal windows on the north.

#### **16. Warehouse and office, 1966/1980, 345 Pine Street, Non-contributing due to alterations**

The Green Mountain Petroleum Corporation building constructed here in 1966 was remodeled in the 1980s. More recently it was purposed as a Greyhound bus depot, but is currently vacant. The rectangular, metal-clad, four- by three-bay building with a shallow gable roof is set on a poured concrete foundation. The entrance faces away from Pine Street (west) and an open wooden porch

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runs the length of that side. Openings include a large single fixed-pane window, a glass entry door, two smaller two-pane windows, another glass entry door and two two-pane windows, and a single sliding-pane window. The east side has three of the large single-pane windows evenly spaced. The northern elevation has an entry door and three of the same windows; a handicapped entrance ramp wraps around to the west, giving access to the porch. The south side has an entry door at ground level and steps to a raised entry door.

### **17. Citizens Coal/Oil Company, 1900, 377 Pine Street, Contributing**

This two-story, shed-roofed, seven- by two-bay building has asbestos shingle siding on the front and clapboard elsewhere; it rests on a concrete foundation. The high false front once had the company name painted on it. A pent roof spans the façade above the first story windows; a porch originally spanned the façade. The south half of the building once housed a scale, with a gateway through which wagons, and later trucks, could be driven and weighed; this was enclosed and finished inside after 1960. The northern half housed an office. The building retains some original two/two sash, mostly on the second story; all doors are new. Fenestration on the southern half of the front includes two/two double hung sash in bays one, two, four, and five on the second story and an entry door, paired one/one windows, another door, and another window on the first story.

The rear elevation has a second-story porch on the southern end providing access to the second story, which has a door and four windows. A paired window, door, and another window are under the porch roof on the first story. The northern half of the rear elevation has windows in bays one and three on the second story and a paired window, a small vent, and a horizontal fixed-pane window on the first story. All second-story windows on the rear are two/two double hung sash and one/one on the first story, unless otherwise indicated. Two exterior brick chimneys also rise on the west façade, one serving each half of the building. The southern elevation has a single two/two window centered in the second story. The northern elevation has paired one/one windows in bay one and two/two double hung sash in bay three on the second story; the first story has two bands of fixed-pane horizontal windows, three panes in each, on the first story.

### **17a. Wagon Shed, ca 1906, Contributing**

This one-story, wood frame, seven-bay wagon shed, one of the original buildings, is west and south of the office. The gable roof is covered in tarpaper. All entries are on the north façade, seven openings for vehicles; the first one has an overhead garage door, the second and third have been filled in (the third has a stained-glass window), and four through seven have wooden double garage-type doors. The sixth and seventh bays bump out slightly. The building is sided in bead board on three sides, it was installed horizontally on the north and vertically on the east and south; the west side is sheathed in plywood.

The east elevation has a loft door centered in the gable. The south side has six small square stable windows and three six-pane sash ganged together; many of these have been boarded over.

### **17b. Stable/Carriage Barn, ca 1910, Contributing**

A two-and-a-half story, wood frame stable barn with novelty/shiplap siding stands behind the office building to the north. It has an asphalt shingle covered gable roof and a concrete foundation. A modern entry door has been added between the original pair of square, four-light

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stable windows and the carriage entrance on south façade; a hay door provides access to the loft above. The north elevation has no openings, and the east has four single-pane stable windows evenly spaced across the ground story and a new crank casement window centered in the gable. The west side once had the same openings as the east side, but the stable window openings have been altered; the same new window is centered in the gable. An open, exterior stair provides access to a second-story open deck that spans the rear elevation and to a modern entry door below the gable window. A small gable-roofed shed of concrete and plywood sits under the deck and may support it. It has double doors on its south side.

**17c. Storage Building, ca 1978, Non-contributing due to age**

A massive, two-story, shallow gable-roofed, metal building runs east to west behind the office and may rest on the site of the original coal sheds. It has three garage-door openings in the east end and garage, loading dock, and entry door openings in the west façade. It houses four businesses, three of which have entries on the southern façade.

**18. Farrell Distributors, ca 1970, 405 Pine Street, Non-contributing due to age**

Large one-story, flat-roofed, metal clad building on a concrete foundation has no openings on the north and south sides. The front (east) has two triple-pane sliding windows, an entry door, four triple-pane sliding windows, another entry door, and another window. Loading docks and vehicle entries for trucks are on the west end.

**19. Malted Cereal Company, 1900, 431 Pine Street, 1900, Contributing**

This large, three-story, flat-roofed factory of brick laid in common bond has a raised redstone foundation and granite watertable. The façade has nine bays separated by full-height brick piers and each bay has a two-story brick-relieving arch with granite keystone and sill. The opening is treated as one, though it opens on two stories. The lower section has pairs of two/two sash topped by a spandrel panel and then round-headed two-pane windows on the second story. The third story windows are pairs of two/two sash and also have granite keystones and sills. The wall height increases at the seventh bay, and there, the third story windows have an extra pane above the two/two sash and splayed brick lintels and keystones. The original openings, shapes, and configurations of these distinctive windows have been retained, but the original sash have been replaced with vinyl throughout the building. Examination of permitting records confirms that all windows in the main brick building were replaced in 2010. The cornice and top of each pier is corbeled with rows of brick. A fifteen-light double entry door in the sixth bay has a hood suspended from cables and a modern wood deck and stairs with metal railings. Window wells and four four-light sashes provide light to the basement level in all but the second and sixth bays.

A one-story concrete block addition (ca 1960) extends from the north elevation; in 2009 it was resheathed in wood and corrugated metal siding and the front deck and railings were replaced. The west elevation has modern metal frame windows and door entrances, with vertically elongated windows wrapping around the northwest corner onto the north elevation. Above this the metal siding is punctured with the outline logo of a machinist, and the letters "maltex." This

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ell also extends to the west, supported above ground on concrete piers as the land slopes down, and creates an L. It has loading dock entries on its interior, south- and west-facing sides.

The west elevation had a one-bay, one-story extension spanning five bays of the main block that was raised to two stories by 1938 and to three stories by 1960; it has a vinyl window with two fixed panes above pairs of sliding sash in each bay. The remaining four bays of the main block visible on the western elevation have double hung windows with two/two sash, round-arched brick lintels, and granite sills in each bay on the second and third stories. First story windows have the same lintel, but two side-by-side panes. The partially destroyed brick walls of an original boiler room extend from the west side creating a small courtyard. A new brick entryway has been built on the west side in the corner of the newer extension and the main block. It has a metal gable roof and a central door flanked by windows like those above and one window on the south side.

The south elevation has similar double hung two/two windows with round arched lintels and granite sills – five windows on the third story and three on second and first stories and in the raised redstone foundation. The remaining two windows are covered by a one-story, flat-roofed, brick addition (ca 1960) with a wooden deck and stair to an entry door.

#### **20. E.B. and A.C. Whiting Company, 400 Pine 1902/1915/ca 1960, Contributing**

The first structure in this varied industrial complex dates from 1902, when the large main block on the corner of Pine and Howard Streets was rebuilt following a fire. The 1902 building was later enlarged and most of the other buildings were constructed between 1912 and 1919. A final large addition was built ca 1960.

The three-story frame structure with a shallow gable roof has two-story shed-roofed wing along the full length of the west wall. It rests on a concrete foundation. A large bay projecting diagonally from the southwest corner of the third story has two/two sash and is a prominent feature.

The two-story section of the west wall has been recovered with metal sheathing, but it appears the original iron cladding remains beneath. The second story has five pairs of twelve/eight double hung windows, then a single one/one, then two eight/eight windows. The first story has bands of windows, originally consisting of three eighteen-light sash.

The first band has replacement one/one sash, the next band has new five-light wooden windows. A loading door separates the second band from the third, which has the same five-light replacement sash. A final window like the five-light bands has only two lights. The third story of the main structure is visible above the shed roof and appears to retain its iron cladding. It has ten two/two double hung windows evenly spaced along the entire length. The south wall of the main block is sheathed in aluminum siding. The two-story section has eight/eight double hung windows in bays one to three and bay five on the second story. Windows on the first story are all replacements and two are on each side of an entry door. The three-story main block has three two/two double hung windows evenly spaced on the third story and smaller windows between

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them. One sixteen-light metal window remains on the second story along with an eight/eight double hung. What was a large opening with a sliding door on the first story has been filled in and contains a sixteen-light metal window and a twelve-light wooden window to the east of an entry door.

A two-story shed-roofed section extends to the east of and is set back from the main block. It has a mixture of vertical board, shingle, and aluminum siding and irregularly placed window openings with a one/one double hung window, two sixteen-light metal windows, and a nine-light window. The variety of siding materials and windows makes it difficult to discern the original fenestration.

Another extension to the east, dating from 1942, is a one-and-a-half story addition with a shallow gable roof and corrugated metal siding on a concrete block foundation. A loading dock runs the length of the south side; a pent roof shelters an entry door, two loading entries with garage doors, another entry door and a bank of three modern vinyl one/one windows. The east elevation has one small window and a recently added entry door. The north side has a single large vehicle or loading entry.

A one-and-a-half story, common bond brick ell added ca 1915 extends from the north side of main block; it has a low-pitched gable roof and rests on a concrete foundation. The west elevation has two windows on the second story flanking a vehicle entry door on the first story; a third window on the second story has an entry door beneath it. A shed-roofed section with a door and window extends to the west. A brick parapet wall is visible above and behind the shed roof. The north wall has two windows with concrete lintels and brick sills to the west of a large entry door. A loading dock platform runs the length of the east side. It has the same window and doors as the north side, but here the windows flank the door. Part of the original iron cladding is visible at the connection with the main block, which has two nine-light windows and an entry door on the first story under a metal shed roof.

Another ell added ca 1915, the drying room is a two-story, three- by twelve-bay common bond brick structure with a shallow-pitched gable roof and a concrete foundation; it was once joined to the combing room, a twin ell parallel to and east of the first, by a building between them. It is joined to the main block by a breezeway on its south side.

The west elevation second story has twelve-light metal windows in all twelve bays, but sash have been replaced in all but the last bay. The first story has eight-light metal windows in bays one and nine to twelve; sash in one and nine have been replaced. Bays six to eight had four-light windows, now filled in, and bays two, three, and five have no openings. An eight-light window in bay four is placed lower than the others.

The second story of the east elevation has sixteen-light metal windows with concrete sills in bays one to five; the openings get smaller in bay six and smaller again, to accommodate the sloping roof of the structure that once joined the drying and combing rooms. The flashing and shadow of the former building are visible on this wall. Only one original sash remains, in bay twelve. The

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first story has entry doors with arched brick lintels in bays nine and ten, and the same windows with splayed brick lintels and concrete sills in bays eleven and twelve, sash replaced.

The north wall has three evenly spaced windows with splayed brick lintels and concrete sills on the second story; all sash replaced. The first story has two windows closely spaced under the first window above, one window under the second upper window, and a modern doorway under the third. All have replacement sash. The south wall is not accessible.

The combing room, also added ca 1915, is two-story, six- by twelve-bay common bond brick structure with low-pitched gable roof and concrete foundation was once joined to the drying room by a building between them. It remains joined to the main block by a diagonal, wood frame, covered ramp entering at the southwest corner.

The south wall second story has sixteen-light metal windows in all bays but the first, which is where the ramp from the main block attaches; the sash in bay four has been replaced. The first story has the same windows, lintels, and sills in bays one, two, and four to six; bays three and four now have a large entry with a garage door, and an entry door opens in bay five. The east elevation first story has sixteen-light metal windows with concrete sills in bays one to four, six to nine, and eleven and twelve (sash replaced); a large entry with a garage door opens in bay five and an entry door in bay ten. Twelve-light metal windows with splayed brick lintels and concrete sills were originally in all bays on the second story; they have been covered over in bays three to six, nine and ten, and the sash replaced in bays eleven and twelve.

The west elevation second story has similar fenestration, flashing and ghosting of the demolished section as seen on the east side of the drying room. The second story has sixteen-light metal windows with concrete sills in bays one to five, then openings get smaller in bay six and smaller again, to accommodate the sloping roof of the structure that once joined the combing room to its twin; the flashing and ghosting of the building are visible on this wall. The first story had similar windows in bays one to three and an entry door in bay four.

The north wall has sixteen-light metal windows with splayed brick lintels and concrete sills in all six bays on the second story; sash has been replaced in bays one, two, and four. The first story has similar windows, lintels, and sills in bays one to three and five and six, but all sash have been replaced; an entry door opens in bay four.

#### **20a. Fiber Machine Shop, ca 1915, Contributing**

This long rectangular, four- by one-bay, one-story, common bond brick building is divided into four sections by brick firewalls. It has a low-pitched gable roof with two skylights in each section and rests on a concrete foundation. The west-facing façade has four double entry doors topped by segmental brick arches and flanked by twelve-light metal windows with splayed brick lintels and brick sills. The door in bay one has been glassed in to create a large shop window; the right-side window in bay two has replacement sash, the left-hand window in the third bay has been enlarged. Both windows in the fourth bay have been altered; the left-hand has replacement sash and the right has been enlarged. The east elevation provides service entry to the retail

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businesses inside and has a shed-roofed wood lean-to section running from the third bay nearly to the north end. The first bay has a window, loading dock, and a window with replacement sash; bay two has a window, double entry door, and window, both retain the original twelve-light metal casements. All windows have splayed brick lintels.

The north side has twelve-light metal windows in bays one and three. The south wall has a small window, an entry door like those on the west with segmental arched brick lintels, and a twelve-light metal window; both windows and a small vent in the peak have splayed brick lintels and brick sills.

### **20b. Combing and Dye House, ca 1915, Contributing**

One-story, five- by eight-bay brick structure in common bond has a low-pitched gable roof that extends to four feet above ground on the east and rests on a concrete foundation. It connects to 20e on its north façade. The west-facing façade has a stepped parapet wall and sixteen-light metal windows in bays one, five, and six; there are no openings in bays three, four, and eight, and a door opens in bay two. A boiler room with smokestack once extended west from this façade, but was demolished. A small dye house remains, also extending to the west and forming an L with the main block. The south elevation of the dye house – where the boiler room once attached – is sheathed in vertical wood siding and has a loading dock entry. The west façade has sixteen-light metal windows with concrete sills in bays one to three. A framed clerestory with seven six-light fixed sash windows rises from the ridge of the gable roof.

The south wall has two sixteen-light metal windows in bays one and two, a vehicle entry with a modern garage door in bay three, and entry door in bay four, and a small window in bay five. All windows have concrete lintels and sills, and the entry door has a concrete lintel. The east elevation has window openings in bays one through six, originally with four-pane sash, which have been removed or replaced in bays one, two, and four; all have concrete lintels and sills. Bays seven and eight have entry and garage doors. The long east slope of the roof is sheathed in tar paper and has three skylights.

### **20c. Industrial, ca 1960, Contributing**

A massive rectangular building sheathed completely in corrugated metal has a gable roof with ventilators and rests on a concrete foundation. The west elevation has a loading dock entry and two small windows under a pent roof. The south elevation connects this building to 20d and has an entry door near the west end and a vehicle entry near the east end. The north and east façades have no openings.

## **21. Pine Street Barge Canal Basin, 1868-69, Contributing**

Lawrence Barnes and Company hired Luther Whitney of Port Douglas, New York, to fill a swampy area of ground on the shore of Lake Champlain south of Maple Street and excavate a small pond into a two-acre basin.<sup>6</sup> It measured 300-foot square and eight-feet deep with a drawbridge over the entrance to accommodate train traffic. Canals that could handle Canadian

<sup>6</sup> *Final Supplemental Environmental Impact Statement, Burlington, Vermont MEGC-M5000 (1)*, (February 1997), 16.

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lumber barges were dug from the basin's northeast and southwest corners to create vastly expanded docking for barges loaded with lumber and later coal and oil. The northern canal was fifty-foot wide and 600-foot long and the southern canal seventy-five-foot wide. A pier extending 700 feet into the lake once sheltered the eighty-foot wide inlet.

### **21a. Marine Railways & Boathouses, late 19<sup>th</sup> century, Contributing**

Two structures (VT-CH-106) are located adjacent to the south side of the Barge Canal Basin (HD #21). These are the remains of a marine railway that was used to haul boats out of the water and onto land for maintenance and repair. Extant portions of each structure include poured concrete ramp walls that extend downward into the south end of the basin and a series of parallel poured concrete footings. Two sets of railroad tracks extend northward from the south edge of the basin approximately twenty meters into the basin, at which point they disappear into sediment for an undetermined additional length. Early 20<sup>th</sup> century Sanborn Fire Insurance maps indicate two, wood-framed, one- and two-story boathouses in this location with ramps extending northward into the basin. Due to the restricted nature of the Superfund site, photo documentation was not possible.

\* Please note: Resource descriptions written in **bold** are for archaeological sites and should be redacted prior to public distribution.

### **21b, c, d, e, f, g, h, i. Canal Boats, 19<sup>th</sup> century, Contributing**

**As shown in Figure 2, the submerged remains of eight canal boats have been identified in the Barge Canal Basin. All the vessels are of the same basic size, dimension and class, but they exhibit different construction characteristics and are presumed to have been built at different shipyards. During environmental remediation in 2002 and 2003 the canal was partially dewatered, and the water in the basin froze in January 2003. Canal boats b-f were partially exposed, permitting Lake Champlain Maritime Museum officials to document the boats. They are now fully submerged and remain filled with one to four feet of sediment.**

- 21b. Vessel 1 (VT-CH-800) is in the northeast corner of the basin and has debris from the shoreline covering one end of the boat. The other end and sides appear to be intact.**
- 21c. Vessel 2 (VT-CH-802) lies parallel to Vessel 3 (#21d). The bow end is broken, but the sides appear to remain intact. The bow is pointed toward the south. The boat likely had a maximum length of 98 feet, but the remains are only 92 feet in length. The bow and stern are largely missing. It was estimated that 3 feet of the vessel lie below the mud, and was not accessible for documentation in 2003.**
- 21d. Vessel 3 (VT-CH-801) is located along the eastern side of the basin and appears to remain intact. The vessel has a length of 96 feet 9 inches and a beam of 18 feet. The hull is preserved up to approximately 1 feet below deck level.**
- 21e. Vessel 4 (VT-CH-798) lies directly north of Vessel 5 (21f) and appears to remain relatively intact.**

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**21f. Vessel 5 (VT-CH-799) lies on the west side of the basin and appears to be the best preserved of the group of wrecks in the canal. Portions of the four interior bulkheads, the bow and the stern remain intact.**

**Three wrecks are noted on 20th century charts of Lake Champlain in the southern end of the Barge Canal. As of 2008, the US Army Corps of Engineers assumed their continued existence and they were assigned Vermont Archaeological Inventory numbers. They are likely to be canal boats similar to the other vessels within the Barge Canal.<sup>7</sup>**

- 21g. Vessel 6 (VT-CH-803)**
- 21h. Vessel 7 (VT-CH-804)**
- 21i. Vessel 8 (VT-CH-805)**

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<sup>7</sup> Kane, Adam I., Christopher R. Sabick, and Joanne M. DellaSalla” Phase I Archaeological Survey of Burlington Harbor in Lake Champlain, Burlington, Chittenden County, Vermont.” Prepared for the U.S. Army Corps of Engineers (New York, 2008), 100.

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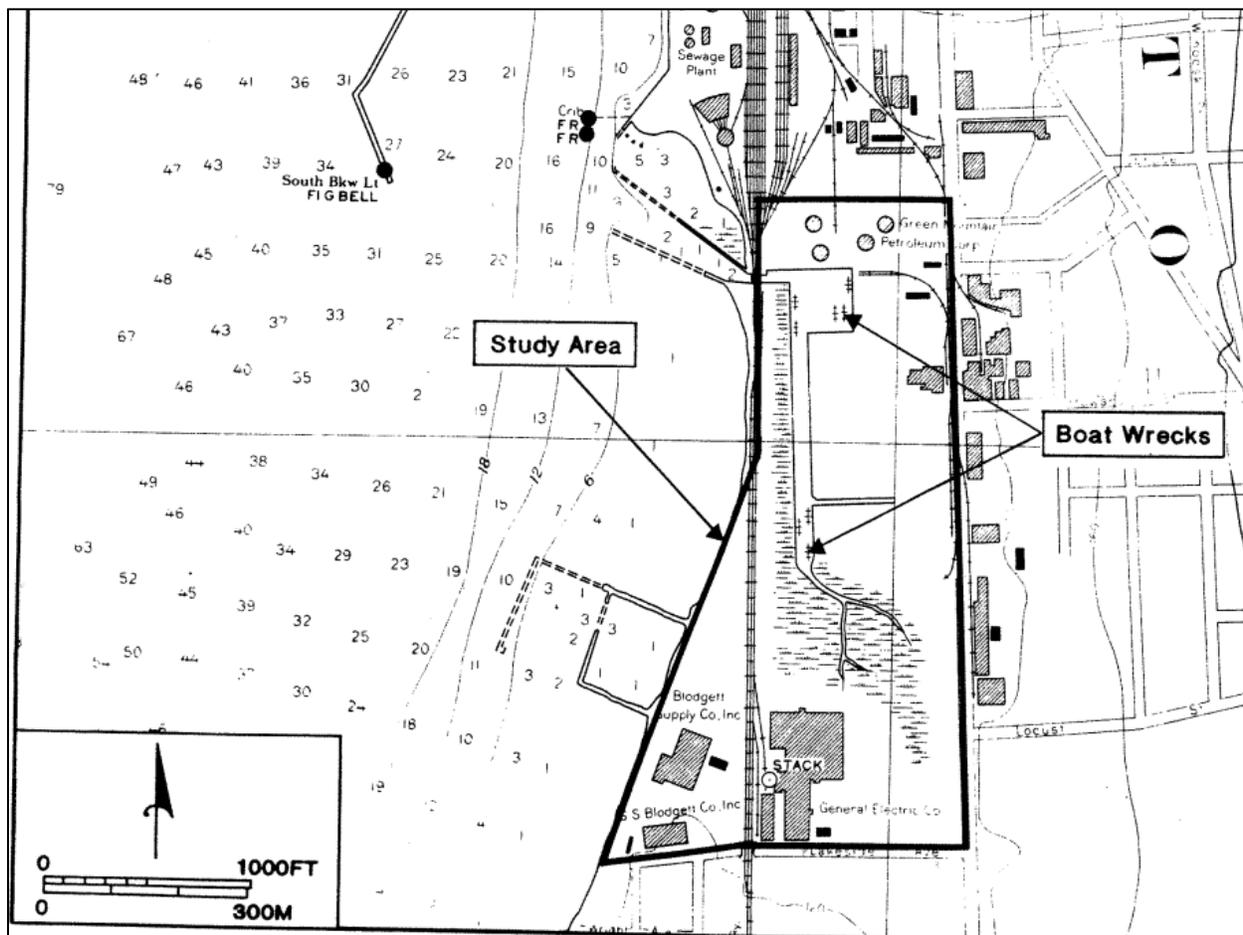


Figure 2: Detail, Chart of Burlington Harbor  
(U.S. Army Corps of Engineers, 1968.) From *A Stage IA Cultural Resources Survey of the Pine Street Canal Superfund Site* (Burlington, John Milner Associates), 1992, Figure 6.

### 21j. Breakwaters, late 19<sup>th</sup> century, Contributing

As shown in Figure 3, 19<sup>th</sup> and early-20<sup>th</sup> century maps show a pair of breakwaters located at either side of the Barge Canal Basin outlet. A substantial portion of the south breakwater remains visible above the water. This structure, constructed of stone slabs and rubble, extends from the shore of the canal outlet northwest into Lake Champlain. On the north side of the canal outlet, the curve of the Lake Champlain shoreline is lined with rubble, and a short rubble breakwater extends northwest into the lake from the outer portion of the curve of the shoreline. Remnants of both breakwaters are present under the surface of the water.

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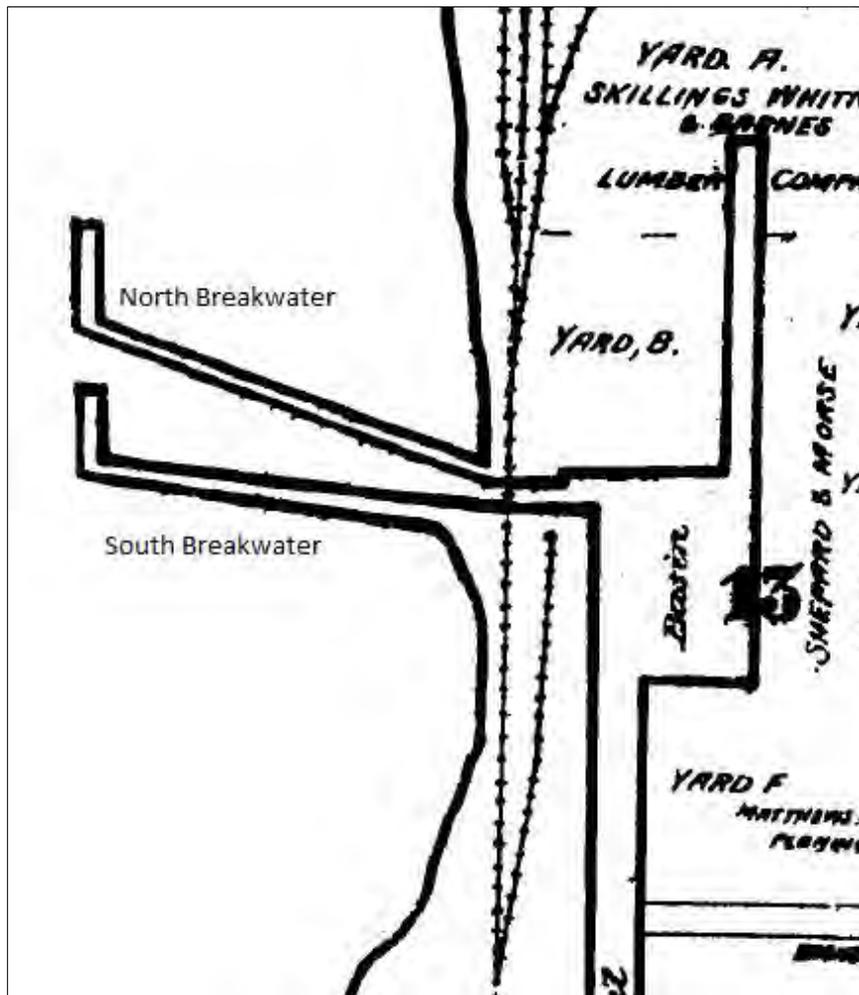


Figure 3. Detail of 1885 Sanborn Fire Insurance Map, showing north and south breakwaters.

## 22. Drawbridge, 1919, Contributing

The first bridge across the outlet of the canal basin was constructed c. 1849 to carry the tracks of the Rutland and Burlington Railroad (later the Rutland Railroad) and consisted of a single-track wooden structure. In 1893, it was replaced by an iron gallows-framed jack-knife drawbridge. The existing steel trunnion bascule bridge was designed and built by the Strauss Bascule Bridge Company of Chicago in 1919. Strauss offered several basic designs; this one is a vertical overhead counterweight type.

The barge canal drawbridge originally consisted of a steel-framed moving leaf with a main trunnion, counterweight trunnion, and concrete counterweight. A steel-framed tower extended across the bridge thirty-eight feet above its base. The leaf rested on poured concrete bridge seats anchored to the banks of the channel by pilings. The moving or bascule leaf pivoted on a main trunnion mounted to the north bridge seat. Rising above the main trunnion is the trunnion tower. A link at the top of the tower connected to the counterweight trunnion and then to the

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counterweight, which was, in turn, connected to the tail trunnion on the tail of the moving leaf behind the main trunnion. The combination of power generated by the bridge engine and the shifting of the counterweight permitted the moving leaf to be raised and lowered. The moving leaf carried two railroad tracks across the clear channel opening; the leaf is eighteen feet wide. (McVarish et al, 2001 includes a detailed description and schematic drawings of the 1919 bridge and its operations.)

The drawbridge was rarely opened after the turn of the 20<sup>th</sup> century and is no longer functional. The concrete counterweight was removed in 1987 and placed on the north shore of the barge canal outlet west of the bridge. The operator's house remains, but is now a concrete shell. The bridge machinery remains largely intact, although not operational, and is visible from the Burlington Bike Path pedestrian bridge.

### **23. *Hildegarde* (VT-CH-794) 1876, Contributing**

**Located at the entrance to the Pine Street Barge Canal, VT-CH-794 was initially identified along with the other wrecks near the Barge Canal Breakwater during a Phase I Archeological study of the barge canal area. As shown in Figure 4, the wreck is located between the two submerged breakwaters at the entrance to the Pine Street Barge canal, and is closest to the southern wall. The *Hildegarde* is a sailing yacht, built in Islip NY in 1876. She was christened the sloop-yacht *Niantic*. In 1902, she was registered in New York City as a yacht with a crew of seven. She was converted into a steam-screw ferry boat with an engine and boiler from a decommissioned vessel at Rouses Point, New York, until converted into a workboat. Her final employment was as a tug boat for a stone barge operated by Herb "One Arm" Pashbee during the 1930s. She moved stone barges from Fiske's Landing at Isle La Motte to Burlington Harbor, where goods were transferred to a railroad flatcar and taken to Rutland for processing.**

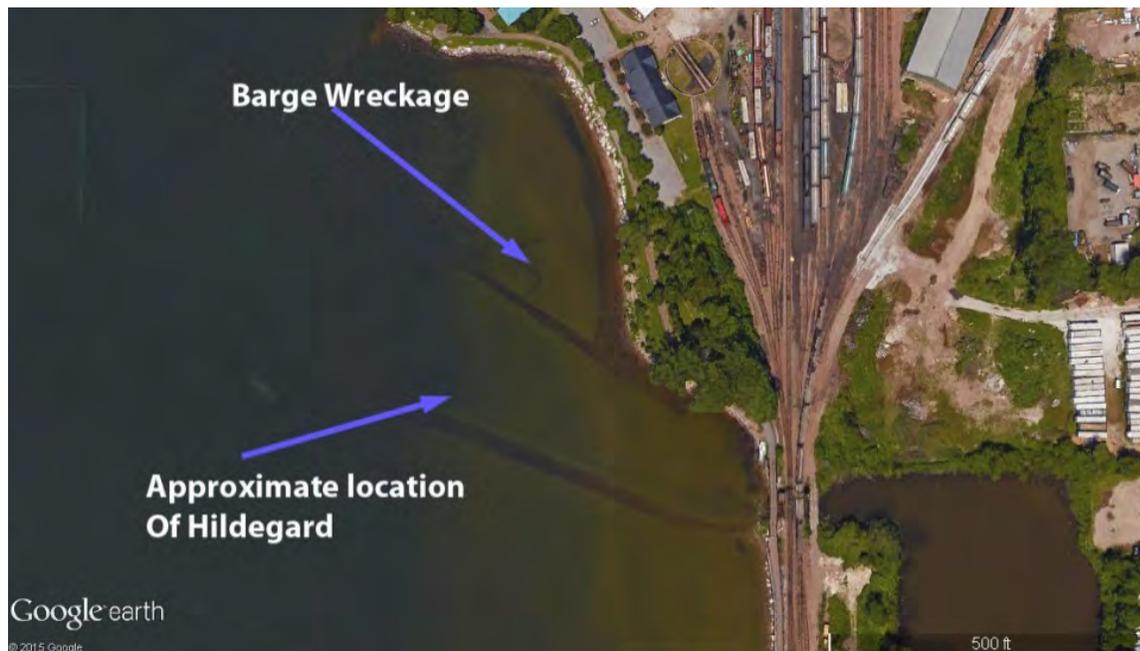


Figure 4: Google image capture, provided and annotated by Christopher R. Sabick of the Lake Champlain Maritime Museum.

**24. Maritime group of three construction barges; VT-CH-795, VT-CH-793, VT-CH-797  
Mid-20<sup>th</sup> century. Contributing as a group.**

An extension to the northern breakwater connected to Roundhouse Point, creating another small basin. A gap between the breakwater allowed passage of vessels to the basin; however, in 1893 the opening was enclosed. In 1960 or 1961 the U.S. Army Corps of Engineers created an opening to allow work barges to enter and moor inside the basin during the repair of the greater Burlington Breakwater. Several barges from Falmouth, Massachusetts, were brought to the lake from the Hudson River and, upon completion of the breakwater repairs, were abandoned. Today they present as a jumbled debris field of disarticulated sides, ends, decks, bottoms of hulls and miscellaneous deck hardware, as shown in Figure 5. As the lake is shallow in this location, the site has been severely affected by ice and storms. Through analysis, researchers from the Lake Champlain Maritime Museum could distinguish three barge bottoms, five sides and one deck. All three vessels are similar in construction and likely built at the same boatyard.

**Construction barge 1 (VT-CH-795)**

87' long and 32' at beam. Side are disarticulated, both ends extant but detached.

**Construction barge 2 (VT-CH-793)**

Largely incomplete, chine log measurement was 73'. This barge lies alongside the southern portion of the submerged breakwater. Two ends are present, and the bottom planking lies beneath the sand.

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**Construction barge 3 (VT-CH-797)**  
**Parallel to the breakwater and closer to shore than VT-CH-793, only a few timbers**  
**apparent protruding from the sand.**

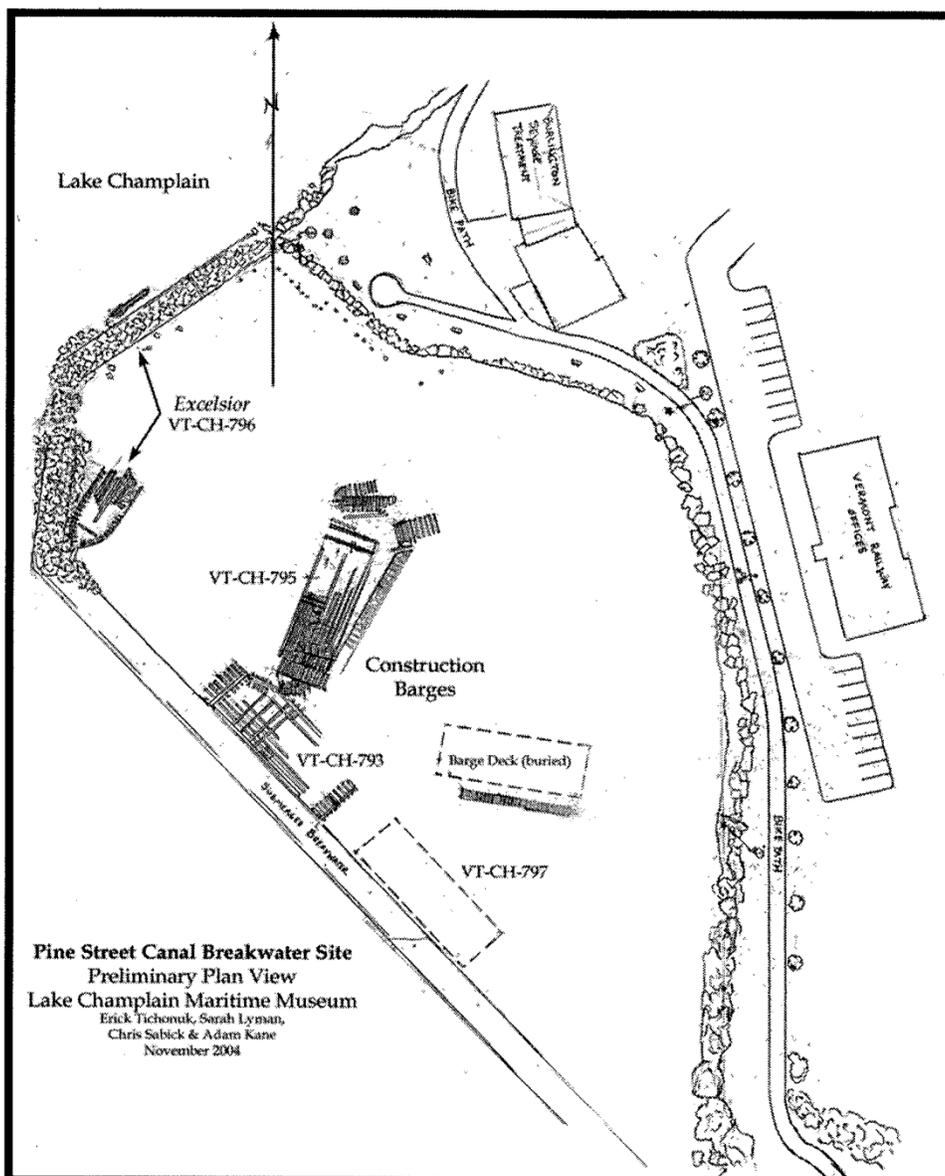


Figure 5: Plan view of the Pine Street Canal Breakwater site.

**25. *Excelsior* (VT-CH-796) 1850, Contributing**

Built in Willsboro, New York, in 1850, the schooner-rigged vessel is 87' long, 25' in breadth with a gross tonnage of 99.08. A Permanent Enrollment issued at Burlington on May 20, 1884, lists Mary A. Kiernan of Burlington as the owner, and Henry Dupee as master. The

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**October 17, 1885, issue of the *Burlington Free Press* reports that: “The spars of the old schooner Excelsior, which was sunk at the mouth of the cove last fall were removed yesterday. This was one of the largest schooners that used to ply on the lake.”<sup>8</sup> The vessel is broken in two, with stern located west of the 1893 breakwater, as shown in Figure 5. Conceivably the vessel was fragmented when the basin was opened in 1960-61, with the dislocation and repositioning of the stern separate from the vessel.**

**26. Rail Site, (VT-CH-736), 1851-52, Contributing**

**The Rail Site was identified in 1996 by the University of Maine/Farmington during the Phase IB archaeological survey of the C-6 alignment for the Southern Connector Project. Phase II testing was undertaken in 1997. Here is the foundation remnants of the Rutland and Burlington Railroad facility constructed in 1851-52, which was a roundhouse with a full interior turntable. This facility is remarkably preserved beneath the current Vermont Railway railyard, as shown in Figures 6 and 7. The circular foundation remnants of the railroad turntable along with a substantial amount of the quarter-round style foundation of the Rutland and Burlington Railroad engine house remain. A brick lined floor and at least two brick constructed maintenance pits are preserved within the interior portion of the engine roundhouse itself.**

**The engine house burned in 1917. The turntable remained in service for several more months, being retired in April 1918.**

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<sup>8</sup> Burlington Free Press, October 17, 1885, 4:1.

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Figure 6: Brick floor of roundhouse. Image from Phase II testing done in 1997 by the University of Maine Farmington of VT-CH-736. From the *Archaeological Testing of the C-6 Alignment, Southern Connector Project, MEGC, M-5001, Burlington VT.*

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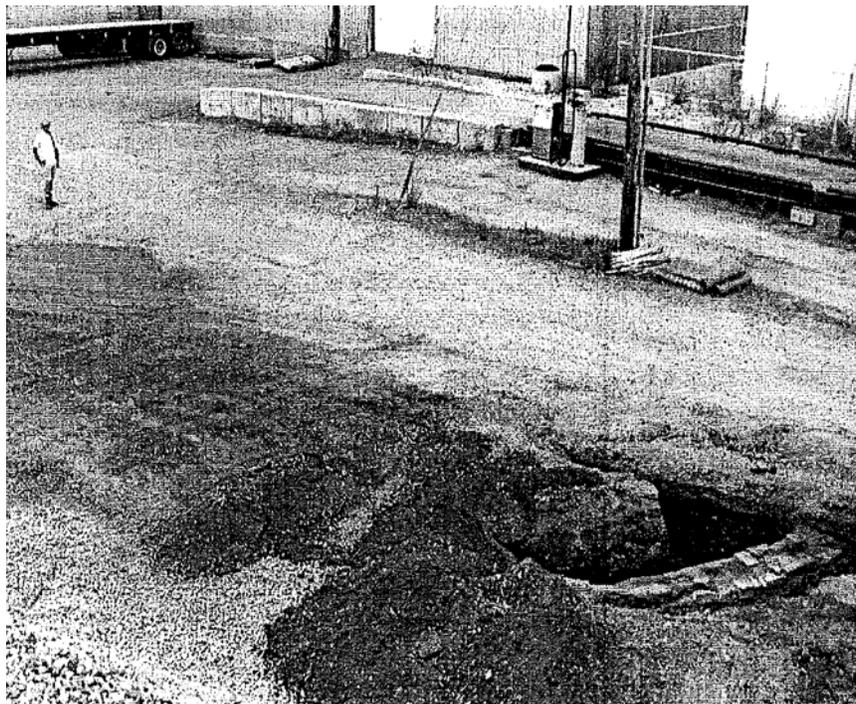


Figure 7: Partially excavated turntable, view to southwest. Image from Phase II testing done in 1997 by the University of Maine Farmington of VT-CH-736. From the *Archaeological Testing of the C-6 Alignment, Southern Connector Project, MEGC, M-5001, Burlington VT.*

**Among the five archaeological sites identified within the railyard vicinity, this site is the most significant to date. The archaeological investigations confirm the substantial remnants of the original 1851 engine house and turntable in largely unaltered condition.**

#### **27. Coal Site, VT-CH-734; Non-contributing**

The Coal Site was identified in 1996 during the Phase IB archaeological survey of the C-6 alignment for the Southern Connector Project. It is a historic Euroamerican site, related to the early settlement and development in the mid- to late 19<sup>th</sup> century.

#### **28. Gregory Site, VT-CH-732; Non-contributing**

The Gregory Site was identified in 1996 during the Phase IB archaeological survey of the C-6 alignment for the Southern Connector Project, and studied in a Phase II testing in 1997. The Gregory site consists of the stone foundation remnants of a lumber or wagon shed or perhaps a yard office which was once located near Burlington's waterfront. The building is shown on several Sanborn Fire Insurance maps, but by 1938, the building is no longer illustrated. The phase II testing revealed only limited, poorly preserved structural remnants with little associated significant historic artifact deposits. All of the artifacts recovered from the Phase II testing were from fill deposits, typically associated with household living and the result of dumping; not related to activities at the site. As a result of the Phase II testing it was determined that the Gregory site is not eligible for the NRHP

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**given the lack of integrity of structural remnants and lack of significant archaeological deposits.**

**29. Post Site, VT-CH-733; Non-contributing**

**The Post Site was identified in 1996 during the Phase IB archaeological survey of the C-6 alignment for the Southern Connector Project. It is a historic Euroamerican site, related to the early settlement and development in the mid- to late 19<sup>th</sup> century; however, lack of significance has precluded additional investigation of the site.**

**30. Lawn Site, VT-CH-735; Non-contributing**

**The Lawn Site was identified in 1996 during the Phase IB archaeological survey of the C-6 alignment for the Southern Connector Project. It is a historic Euroamerican site, related to the early settlement and development in the mid- to late 19<sup>th</sup> century; a lack of significance precluded additional investigation of this site.**

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**8. Statement of Significance**

**Applicable National Register Criteria**

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important in prehistory or history.

**Criteria Considerations**

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(Mark "x" in all the boxes that apply.)

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

**Areas of Significance**

(Enter categories from instructions.)

Industry

Transportation

Archeology: Historic – Non-Aboriginal: Transportation

Archeology: Historic – Non-Aboriginal: Maritime History

**Period of Significance**

1849-1969

**Significant Dates**

1849

1868-69

**Significant Person**

(Complete only if Criterion B is marked above.)

N/A

**Cultural Affiliation**

N/A

**Architect/Builder**

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Austin, Frank Lyman  
Ryer, E.C.  
Strauss Bascule Bridge Company  
Whittier & Goodrich  
Whitney, Luther

**Statement of Significance Summary Paragraph** (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Pine Street Industrial Historic District encompasses several blocks along Pine Street in Burlington, Vermont, and extends west into Lake Champlain. It is being nominated under Criterion A for its significance locally as the site of the second wave of the lumber industry in Burlington, which began a few years after the Civil War when Burlington ranked third in the nation for lumber processing. The area continued to serve as the city's main industrial corridor and multi-modal transportation hub into the mid-20<sup>th</sup> century. It is nominated under Criterion C for period or method of construction, particularly for the Burlington and Rutland Rail Yard (HD #1), Railroad Engine House (HD #1b) and Turntable (HD #1c), the Pine Street Barge Canal (HD #21) and Drawbridge (HD #22) as well as the numerous examples of commercial/industrial architecture (HD #10, 11, 15, 19, 20). It is also being nominated under Criterion D for several historic archeological sites and shipwrecks that are located within the areas of the rail yards, the canal basin and its breakwater. The earliest local industry in Burlington was sited at the source of waterpower, specifically the falls on the Winooski River, which flows between Burlington and the city of Winooski. Industrial development on Burlington's Lake Champlain waterfront began in the mid-19<sup>th</sup> century, most notably with the Pioneer Shops, a large manufacturing facility that burned in April 1858. While the waterfront areas north of Main Street have been redeveloped as a place for recreation and entertainment in the 1980s, the Pine Street corridor retains an active rail yard, warehouses, and former industrial buildings that have been converted to new uses. As such, it is the most significant remaining site of industry in the city proper. The Period of Significance begins in 1849, when the Rutland Railroad arrived, and ends in 1969, the date of construction for the last contributing resource.

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**Narrative Statement of Significance** (Provide at least **one** paragraph for each area of significance.)

### **Early Industrial Activity**

Burlington grew on the eastern shore of Lake Champlain beginning in the 18<sup>th</sup> century, with its main port at the foot of Maple Street and associated development along Battery Street. Its access to Vermont's stands of virgin timber and proximity to Canada – a mere 50 miles – positioned it to flourish as a lumber center. Burlington's first lumber era, from early settlement until nearly 1850, sent acres of the state's timber north to Canada, which provided the most direct access to the insatiable European market. The immense logs were joined together in massive rafts and

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floated northward on Lake Champlain. Burlington's waterfront was a busy place in these early years and home to many businesses and services related to shipping; but not the main industrial center. Manufacturing relied on waterpower at this time, which the waterfront lacked. Industry was concentrated at the opposite end of the city, on the falls of the Winooski River.

As the Quebec lumber market flourished, Vermont's rich stands of forest were gradually depleted. The deforestation of Vermont did not, however, spell the end of Burlington's lumber industry. Instead, the flow of timber reversed direction, and Canada's previously untapped forests were cut and sent south, renewing Burlington's status as a lumber capital, this time as a processing center in addition to a port.<sup>9</sup>

The arrival of the railroad near Burlington's waterfront in 1849 and the dredging of the barge canal twenty years later set the stage for the extension of Pine Street south of Maple Street to Howard Street, where stacks of Canadian lumber soon covered acres of ground. Planing mills, bobbin mills, a venetian blind manufacturer and a furniture factory opened along Pine Street to transform the raw lumber and create profits for Burlington's "lumber barons." Essential to the nascent lumber import activities, railroad arrival and manufacturing expansion was due to the visionary efforts of two prominent Burlington businessmen: Timothy Follett and Lawrence Barnes. Each made significant personal investments that assured Burlington's long term commercial growth and manufacturing dominance; only one survived financially.

### **Timothy Follett & Lawrence Barnes**

Timothy Louis Follett (January 5, 1793-October 12, 1857) was a lawyer and leading businessman in Burlington, commonly associated with the firms of Mayo & Follett; Follett and Bradley; or Follett & Co., wholesalers at the Stone Store on Burlington's waterfront.<sup>10</sup> Follett's commercial interests included sale of heavy goods, molasses, and sugar; all of which were imported and exported via water at their Burlington Bay warehouse, central to business interests of the day. A keen businessman and a prominent politician, Follett understood that Burlington's increasing commercial base would benefit from the wider reach of the infant railroad, which had reached Winooski by 1849. Follett purchased "all of the visible land south of Maple and west of Pine, [which] has been reclaimed from a marsh."<sup>11</sup> Filling in the watery cove was necessary to accommodate railroad expansion into Burlington's waterfront.<sup>12</sup>

Burlington Historian David Blow writes:

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<sup>9</sup> William G. Gove, "Burlington the Former Lumber Capital": *Northern Logger and Timber Processor* (May 1971), 19-20, 38-43; William S. Rann, *History of Chittenden County* (Syracuse, NY: D. Mason, 1886), 325.

<sup>10</sup> The Stone Store is located on the northwest corner of Maple and Battery Street, contributing resource # 1 in the original Battery King Street Historic District.

<sup>11</sup> David Blow, *Historic Guide to Burlington Neighborhoods*, Volume I (Burlington: Chittenden County Historical Society, 1991), 95.

<sup>12</sup> Reference is made here to the *Map of Burlington Village* (n.d., assumed 1827-1849.) Lafayette St. (Pine) stops south of Maple at "Cove." A swamp and the ravine lead into what is now the barge canal. There is no development south of Maple Street.

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Timothy Follett first began filling in the marsh. He purchased 65 acres of prime waterfront land to use for a terminal and freight yard for his Rutland Railroad and during the fall and winter of 1850 built the Rutland station which faced the end of Battery Street.”<sup>13</sup>

It was the arrival of the Rutland and Burlington Railroad (#1, 1a-1g) on Burlington’s waterfront in 1849 that set the stage for revival. Burlington’s Lake Champlain port was ideally located to receive lumber from Canada by water and ship it out by rail, and Burlington was the only place in the area where water and rail came together.

Presdee and Edwards’ *Map of Burlington VT* (1853) clearly illustrates the Rutland and Burlington Railroad connection from Follett’s dock at the bottom of Maple Street, continuing south along the waterfront. The Burlington and Rutland depot and engine house are illustrated as complete.<sup>14</sup>

Follett’s foresight, business perspicacity and financial investment had brought the railroad to Burlington harbor, making the waterfront ripe for commercial, transportation and manufacturing growth. Here the raw timber would be unloaded from barges, seasoned in the yards, milled into lumber or manufactured wood products, and shipped south by rail.

Follett’s business acumen and prosperity remains evident in the fine Greek Revival home constructed at 63 College Street, designed by Ammi B. Young.<sup>15</sup> The building remains a testament to his success and prominence in Burlington’s business community, yet became the bitter spoils when Follett’s financial world tumbled in 1853. Follett was forced to sell his beautiful home to his railroad rival, Henry R. Campbell, of the competing Vermont Central Railroad. Follett died in Burlington a broken man, tortured by his business failure and in financial ruin. His heavy investment in the Rutland and Burlington Railroad had cost him his enormous fortune and his social standing. His obituary alludes to the significance of his accomplishments, stating: “Mr. Follett was a public-spirited man, and aided greatly in making Burlington the largest and most prosperous commercial town in Vermont.”<sup>16</sup>

Mr. Follett may have been first to anticipate the value of the railroad to Burlington commercial interests, but he was not alone.

Lawrence Barnes (June 8, 1815-June 21, 1886) arrived in Burlington in 1855. Prior to his arrival, several of his business enterprises had failed. After serving early indenture as a laborer and carpenter, Mr. Barnes then worked in a spool and bobbin manufactory for ten years, when he left to begin “lumbering.” Unsuccessful in this endeavor, he purchased 10,000 acres and a ½ interest in a lumber business in Island Pond, Vermont. He subsequently lost both investments. Barnes began purchasing lumber at Three Rivers in Canada, and learned that sorting lumber for its

<sup>13</sup> Blow, *Historic Guide*, 95.

<sup>14</sup> *Map of Burlington VT* (New York: Presdee & Edwards, lith. of Sarony & Major, 1853).

<sup>15</sup> Follett House, 1840. Listed on the National Register of Historic Places October 30, 1972.

<sup>16</sup> Obituary of Timothy Louis Follett, *Burlington Free Press*, October 13, 1857.

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intended purpose could result in greater profit margin. He expanded his business interests by contracting to make sugar boxes for delivery to New York; however, at this enterprise he also failed.<sup>17</sup>

Upon relocation to Burlington in 1855, Barnes began importing lumber purchased at Three Rivers. He opened a yard for Canadian lumber on Maple Street in 1856 and opened the first planing mill in 1857. Lumber sheds and mills covered the waterfront within a decade, and the trade increased steadily for the next forty years.<sup>18</sup>

Among the first to grasp Burlington harbor's role as a transshipment point, Barnes found a loophole in the tariff legislation that made importing Canadian lumber economically seductive. Barnes learned that dressed lumber was both cheaper to transport and commanded a higher price, as well as being duty free. The savings were substantial: 12.5% in freight expenses. His clever manipulation not only expanded his business investments, but also the commercial interests of Burlington harbor which responded with new manufactories and building ventures constructed specifically to use the Canadian lumber which poured into the wharves. This plan proved so profitable that space on Burlington's main port was soon exhausted. Not to be thwarted in his drive to increase business, Barnes simply created more frontage.

Following Follett's example, he began to fill a parcel of swampy land he owned along Lake Champlain just south of Maple Street; here he would create the infrastructure to sustain Burlington's thriving lumber industry. An area known as the cove, "a mere frog pond in summer and skating pond in winter" according to the *Burlington Free Press*, was turned into a basin that was 300-feet square and 8 feet deep (HD #21) in 1868-1869.<sup>19</sup> The work was done per recorded agreement with the Rutland Railroad Company which shouldered \$12,000 of the cost, but was collaborative in that the basin and canals were constructed partly on the lands of the railroad company and partly on the land owned by Barnes. The agreement was specific to shared access across the lands of each, with the railroad having exclusive management of the drawbridge.<sup>20</sup> Canals that could accommodate Canadian lumber barges extended from the northeast and southwest corners, the northern one 55' wide and 600' long (constructed by Barnes' partner Whitney, on behalf of the railroad) and the southern canal 150' long and 75' wide (constructed by Barnes and D. W. Skillings, a partner in his lumber business).<sup>21</sup> An 80-foot opening from the lake into the basin was created at the basin's northwest corner and topped by a drawbridge (#22) to accommodate rail traffic. Finally, two, 700' breakwaters (#21j) were constructed to shelter boats as they entered the basin. Barnes and D.W. Skillings were signatories to the terms of the

<sup>17</sup> Biography of Lawrence Barnes: <http://www.onlinebiographies.info/vt/chit/barnes-1.htm>.

<sup>18</sup> Hamilton Child, *Gazetteer and Business Directory of Chittenden County for 1882-1883* (Syracuse, NY: Printed at Journal Office, 1882), 108; Rann, Chittenden County, 326; David J. Blow, *Historic Guide to Burlington Neighborhoods*, Volume I (Burlington: Chittenden County Historical Society, 1991), 96.

<sup>19</sup> *Burlington Weekly Free Press*, May 1, 1868, 2; David Wallace Orr, "The Port of Burlington, Vermont: Site and Situation, a Study in Historical Geography" (Master's Thesis, University of Vermont, 1972), 78-79; Richard P. Corey and James B. Petersen, *Archaeological Phase 1A Testing of the C-6 Alignment* (Burlington, 1998), 26; Blow, *Historic Guide*, 96.

<sup>20</sup> City of Burlington Land Records, 4:311-313.

<sup>21</sup> Ibid.

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agreement with the railroad, which included construction of cribbing in both channels, and placement of excavated earth “one half on each side of said canals, and have the same properly leveled and graded back upon the adjoining lands.”<sup>22</sup> The wetlands surrounding the basin were transformed with tons of fill, and a new industrial district was born.



Figure 8. Detail of the *Bird's Eye View of Burlington and Winooski map* (Madison, WI: J.J. Stoner, 1877). Pine Street cuts diagonally across the upper portion of the image, with the Kilburn and Gates factory in the upper left and the Barge Canal Basin in the lower half. Courtesy of UVM Special Collections.

Because both the lake and canals froze during the winter, immense stockpiles of timber were unloaded and stored to keep the steam-powered mills operating throughout the long cold season. The area south of Maple Street and east of Lake Champlain was soon filled with stacks of lumber, and with Barnes's own mills leading the way, the Pine Street corridor emerged as

<sup>22</sup> Ibid.

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Burlington's industrial center. Lumber sheds and mills covered the waterfront within a decade as sales ballooned to more than 40 million board feet annually.<sup>23</sup>

Two immense lumber firms grew on Pine Street from Lawrence Barnes's enterprises. Skillings, Whitney and Barnes was the direct descendent of Barnes's original 1856 operation and maintained offices in Boston, Detroit, Montreal, and Albany as well as Burlington. At its height around 1870, the firm shipped from 70 to 100 million board feet of lumber annually.<sup>24</sup> Shepard, Davis and Company, formed in 1869 and later called Shepard and Morse, was the successor to Barnes's Canadian interests; it operated the largest planing mill in the country. Shepard and Morse had 4,000 feet of dock frontage with space for 30 to 35 barges at once. Its 25-acre yard held 30 million board feet of lumber, and the firm's 300 Burlington employees dressed 30 million board feet annually.<sup>25</sup>

Due in large part to these two enterprises, Burlington ranked third among lumber depots in the United States, with its peak year in 1873, when 170 million feet of lumber passed through Burlington's port and mills.<sup>26</sup> An 1877 bird's eye view of Burlington shows the rail yards, barge canal system, and acres of stacked lumber. Ships are depicted moving within the harbor, the canals and the canal basin.

The area encompassed by the Pine Street Industrial Historic District was a natural extension of lumber and manufacturing ventures established earlier along the waterfront north of Maple Street. One important enterprise, a large manufacturing complex called the Pioneer Mechanics Shops, was lost to fire April 4, 1858. City leaders were desperate to replace the business interest, and offered \$8,000 to anyone who could restore the buildings and businesses. Lawrence Barnes assumed the task, and successfully reconstructed the buildings (three, 100' x 50') and had the manufacturing interests back up and running again within ninety days.<sup>27</sup> Although located north of the boundaries of the Pine Street Industrial Historic District, this anecdotally confirms the commercial importance of the waterfront and the shrewdness of Lawrence Barnes in maintaining business interests associated with the harbor. The extant buildings from that enterprise on Lake Street are listed in the Vermont State Register of Historic Resources.

The determined business concerns of Lawrence Barnes are reflected in the musings of a Winooski railroad station agent, anxious to demonstrate to his superiors his prowess at soliciting freight business. From Jonas Wilder's journal:

The Peck Co...were wholesale heavy hardware and grocery merchants in Burlington and had a warehouse on the lake dock. A schooner from Canada left with them some 16,000 feet of fine Canada pine lumber to sell; it was the best quality. Deacon Chase of Nashua came up to buy iron, nails and some kinds of

<sup>23</sup> Gove, "Burlington," 39.

<sup>24</sup> Child, *Gazetteer*, 109; Rann, *Chittenden County*, 466; Gove, "Burlington," 40.

<sup>25</sup> Gove, "Burlington," 40-41; Rann, *Chittenden County*, 467.

<sup>26</sup> Gove, "Burlington," 408; Rann, *Chittenden County*, 472-473.

<sup>27</sup> <http://www.onlinebiographies.info/vt/chit/barnes-l.htm>.

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groceries; he had a sash and door factory and kept a store. When down to the storehouse, Peck showed him the lumber; he was pleased with it and the price was very low, but said he could not buy because the freight would prevent. Peck asked him to ride over and see me; they came in and Peck made known the business. It went through my mind like electricity that if we could start a trade in that Canada pine it would add largely to our earnings. I said to the Deacon, "I will ship the lumber at your own price." He replied, "That ain't quite fair; I have no idea what you can afford; make some suggestions." I said, "How would \$4 per thousand do?" He asked, "Will you take it at that rate?" I replied, "Yes."

Some three weeks later a man came into my office, said his name was Barns [*sic*], asked me if I had shipped some pine lumber to Mr. Chase of Nashua at \$4 a thousand. I said yes; he then asked if I would ship for him at the same rates (he was a lumber merchant.) I said, yes, all you wish. He told me he was started for Canada to buy lumber, if he could get those rates. I told him I would extend it at the same rates to Manchester, Lawrence, Nashua, Lowell, and Boston. That settled it for Burlington to be a lumber market; in four years, Burlington was only third lumber market in the states.<sup>28</sup>

Wilder continues:

I mention these circumstances to show the importance of the railroad management being ever on the watch to assist in developing new business, and do it at once. Barns [*sic*] Co. got rich in war time; one year they paid government tax on \$90,000 income.<sup>29</sup>

As a partner and a facilitator in the expanding industrial corridor, the role of the railroad cannot be underestimated. The Beers Atlas Map (1869) is most telling: the railroad links Battery (Water) Street to the new commercial activity along Pine Street.<sup>30</sup> A "V" shaped spur provides a direct connection to Kilburn & Gates lumber lot and furniture factory, the Burlington Manufacturing Company (owned by Barnes), the Rolling Mill, and a nail factory. Pine Street extended no further than Howard Street on paper; however, lot ownership on both sides and south was linked to manufacturing interests.<sup>31</sup> Among those identified are Shepard and Stearns, Flint & Hall, and Shepard & Hall.<sup>32</sup> This early rail connection allowed raw goods to be delivered and finished product to be loaded directly from the site of manufacturing facilities. Access to

<sup>28</sup> Jonas Wilder, "The Journal of Jonas Wilder, Railroader." *Vermont Quarterly* Vol. XIV No. 3 (July 1946), 122-125.

<sup>29</sup> Ibid.

<sup>30</sup> *Atlas of Chittenden County* (New York, NY: F.A. Beers, 1869).

<sup>31</sup> The lot at the terminus of Pine Street on the 1869 Beers Map is identified as belonging to Barnes. Map subscribers include: *L. Barnes and Company, Wholesale dealers in Canada and Michigan Lumber. Steam Mills for Planing, Jointing and Matching.*

<sup>32</sup> A. T. Stearns is identified as on the *west side of Pine, northeast of Barge Canal; manufacturers of Patent Gutters, conductors...for the trade by new and improved machinery.* Kilburn and Gates were wholesale manufacturers of Cottage Furniture.

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trunk lines was immediate. The 1877 Birds Eye View of Burlington confirms the inevitable: the railroad connection between Battery Street and Pine Street has continued south.<sup>33</sup> Manufacturing interests flank both sides of the road and are noted in subscriber footnotes (L. Barns[sic] Son & Co. Lumber Mills; L. Barns, Son & Co., Marble Works; Shepard, Morse & Co., Lumber Mills, Kilburn and Gates Furniture Factory; Bronson's, Weston, Dunham & Co. Lumber Mill). Pine Street is awash in stacked lumber. Canals and the drawbridge (HD #22) are complete, with ships in the basin and along wharves. A retaining wall east of the Kilburn and Gates Furniture Manufactory demonstrates the grade change, a remnant of the ravine that formerly lead to the swampy cove filled by Barnes and opened for business. The railroad spurs that thread along and through Pine Street today remain largely intact, providing tangible evidence of a circulatory system that fed industry and maintained Burlington's commercial and manufacturing prominence for more than a century. Sections of the rail emerge from grassy overgrowth or have been interrupted by highway pavement, but remain clearly legible as the transportation and freight corridor that created and served the industrial district. The railroad pathway is the strongest remaining testimony and evidence of Pine Street's industrial prosperity, confirming the movement of goods from water and land to rail; north to south, east to west.

The competition between the Rutland and Burlington Railroad and the Central Vermont Railroad (known as the Vermont Central until the 1870s) was nearly continuous and provided an intensity of competition that enhanced Burlington's commercial and manufacturing growth. With both lines competing for the Boston traffic, the firms found profit in interchange of freight (not always willingly, but out of necessity) and the odd lease of each other's rail line. The Rutland Railroad wanted the New York trade, both freight and passenger, as early as 1869. Vermont's Island Line became the Montreal to New York route c. 1900. Annual reports provided by the railroad commissioner's document increasing expansion of rail lines, materials and tonnage. The Biennial Report of the Rutland Railroad Commissioners for 1871-72 shares that 100 miles of railroad was built in Vermont in the preceding year for a total of 182 ½ miles (at a time when only 60,000 miles of broad gauge railway were in operation in all of the US).<sup>34</sup> Vermont had more freight houses than passenger stations, demonstrating the priority and superiority of freight cargo.<sup>35</sup> Burlington's passenger depot, Union Station, located outside the Pine Street Industrial Historic District,<sup>36</sup> was constructed by the Rutland and Central Vermont Railway as partners in 1915-16 at a cost of \$142,000; a grudging but necessary partnership between railroad rivals to attract passengers to their active freight corridor. As businesses within the Pine Street industrial corridor were providing the materials and finished goods, the railroad extended the commercial marketplace and facilitated transit throughout Vermont, the northeast, and beyond.

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<sup>33</sup> *Birds Eye View of Burlington and Winooski VT* (Madison, Wis.: J. J. Stoner).

<sup>34</sup> *Biennial Report of the Railroad Commissioner for 1871-1872*; (S.I., sn.), University of Vermont, Special Collections, HD2767.V5 V46a, 8.

<sup>35</sup> *Ibid.*, 5.

<sup>36</sup> Union Station is listed in the National Register of Historic Resources as a contributing resource in the Battery Street Historic District. Listing date is November 2, 1977.

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### Maritime Resources

Included within the Pine Street Industrial Historic District are maritime-related archaeological resources both within the Pine Street Barge Canal (#21), and the outstretched arms of its breakwater (#21j). The canal itself is the repository of eight sunken barges (#21b-21i), a collection of vessels representing modes of water transportation from the mid-19<sup>th</sup> century to the early 20<sup>th</sup> century.<sup>37</sup> A great deal of information about the specific manner of lake transit via canal has been gleaned from documentation taken in the fall of 2002 and winter of 2003 of the five northerly barges, including measurements, dimensional drawings, and photographs. Collectively, the information has contributed to the replica construction of the canal boat *Lois McClure*, a working educational vessel docked in Burlington harbor. Three of the vessels remain in the southerly end of the barge canal, noted on mapping completed by the U.S. Army Corps of Engineers in 1968.

Several other vessels are within the “arms” of the barge canal breakwater: three mid-20<sup>th</sup> century work barges (VT-CH-793, VT-CH-795, and VT-CH-797), the mid-19<sup>th</sup> century lake schooner *Excelsior* (VT-CH-796), and the 1876 sailing yacht turned tug boat *Hildegarde* (VT-CH-794). The latter best illustrates the water-to-rail commercial activity in the Pine Street Industrial Historic District, as her last assignment was hauling stone from Isle La Motte to Burlington, where her cargo was loaded onto a railroad flatcar for shipment and processing in the Rutland area.<sup>38</sup>

### Stone Yards and Processing

The Pine Street Industrial Historic District was also home to two large stone yards, one of them also tied to Lawrence Barnes. Characteristic of his business acumen, Barnes understood that business diversification would strengthen and complement existing waterfront enterprises, and recruited young Charles Hayward from Rutland to nurture a new stone business. Barnes was one of several founders of the Burlington Manufacturing Company, which became active in 1870. With a workforce of 500 to 600 men, the firm processed marble quarried in Vermont for sale nationwide. Hayward won the good favor of his employer, eventually marrying Barnes’ daughter, Ella. Hayward was the manager of the Burlington Manufacturing Company, but is recognized also for his residential development adjacent to the south end industrial area; notably the establishment of Hayward Street and other property within the area known as the “Five Sisters” neighborhood.<sup>39</sup>

J. W. Goodell and Company, established in 1875, employed 150 men in its Pine Street yards. Goodell’s specialty was design and fine carving of granite, again sold nationwide.<sup>40</sup> Like the lumber industry, these stone-processing enterprises were made viable by proximity to water, essential to sawing and polishing stone, and rail transport. Today an assortment of marble

<sup>37</sup> John Milner Associates, *A Stage IA Cultural Resources Survey of the Pine Street Canal Superfund Site, Burlington Vt* (Danbury, Connecticut: John Milner Associates, Inc., 1992), Figure 6.

<sup>38</sup> Lake Champlain Maritime Museum, *Phase I Archaeological Survey of Burlington Harbor in Lake Champlain, Burlington, Chittenden County, Vermont* (New York: U.S. Army Corps of Engineers, 2009), 93.

<sup>39</sup> *Burlington Weekly Free Press*, “The Decease of Chas. R. Hayward.” October 5, 1893, p. 5.

<sup>40</sup> Rann, *Chittenden County*, 427-473.

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and stone remnants is scattered about the railyard, along the Burlington Bike Path and visible in the shallow waters of the waterfront, conspicuous remnants of the area's industrial past.

### **Related Industries**

The concentration of lumberyards resulted in a host of dependent companies setting up shop nearby. Joel and Stephen Gates, along with partner Chaney Kilburn, were among the first to purchase land in the district after the Barge Canal was built, and their company, founded in 1865, was the first of the enterprises allied to the lumber trade to open on Pine Street. The Kilburn and Gates Factory (HD #11), stretching the entire length of Kilburn Street between Pine Street and St. Paul Street, was constructed in 1869 to house what was described as the largest furniture manufactory in the country in 1871. When it opened in 1869, it counted 115 employees. The factory used steam power to produce thousands of interchangeable parts for a line of "cottage" (casual) home furnishings. The parts were shipped by rail to a sister establishment in Philadelphia for assembly, painting, and marketing. A railroad spur that connected to the Kilburn and Gates Lumber Yard and business remains extant. The business had shrunk by 1880, so Gates converted the factory to weaving cotton; ten years later, the Burlington Cotton Mill employed 350 workers and produced 25,000 yards of cloth daily. The mill changed hands in 1912 and then closed during the Great Depression. It reopened as the Lane Press in the 1930s and a wholesale beverage business in the 1940s.<sup>41</sup> Burlington architect Graham Goldsmith purchased the property in 1988 and rehabilitated it for commercial/office space.

Other allied industries included Barnes and Holt's Spool and Bobbin Works, established on Pine Street in 1875. Matthews and Hickok was organized in 1871 with a Pine Street mill manufacturing packing boxes (currently the site of HD #19). Nothing remains of either firm. Fire destroyed the Matthews and Hickok Mill, and T. A. Haigh and Company used the old Barnes and Holt woodworking mill as a warehouse when it opened on Pine Street in 1928 (currently the site of HD #9). A 1980 fire destroyed the historic mill building at the rear of the retail lumber supply business.

The Burlington Venetian Blind Company incorporated in 1884 and opened its factory the next year on the northeast corner of Pine and Kilburn Streets. A complex of buildings populated the site by 1890, at which time it employed 75 workers making 700 blinds per week and claimed to be the largest blind producer in the county. Only one of the Venetian Blind Company's buildings remains today (HD #8) – a two-story office that once had lumber sheds extending behind and was added to the complex in the 1920s.<sup>42</sup> More recently, Conant Metal and Light made and distributed lighting fixtures there (and at 266 Pine Street), continuing the industrial/commercial use. An antiques business has recently moved into the space. The Venetian Blind Company factory buildings are gone and the land serves as a parking lot.

Burlington's lumber industry was hit hard by the depression in the mid-1870s like the rest of the country, but recovered. Although it never reached its pre-1873 peak again, upwards of 1,500

<sup>41</sup> See Joseph Amrhein, "Burlington, Vermont: The Economic History of a Northern City" (PhD diss., New York University School of Business Administration, 1958), 225; Blow, *Historic Guide*, 96.

<sup>42</sup> See Child, *Gazetteer*, 105-106; Amrhein, *Burlington*, 230; Rann, *Chittenden County*, 471.

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residents found employment in the lumberyards in the 1880s. Serious decline had set in by 1891, however, as imports of Canadian lumber began to drop in response to competition from the newly developed forests of the western states. The final blow came in 1897 when Congress passed the Dingley Tariff imposing a duty of \$2 per thousand on Canadian lumber. This was a blow Burlington's lumbermen could not survive, and the area began to transition from heavy industrial processing to light industrial food production and related businesses.<sup>43</sup>

Pine Street continued to support new industries into the 20th century, some building on the ruins of the old. The original railroad engine roundhouse burned in 1918 and a new one was built immediately afterward (HD #26); in 1916, the track path was straightened. William J. Patten organized the Malted Cereal Company in 1899 and built the existing three-story brick factory (HD #19) on the ruins of Matthews and Hickok's planing mill in 1900. The first floor was used for storage and production, the second floor for packing, and the third floor for advertising. The company produced 300 cases of malted cereal daily and reached a high point in 1953, when an engineer developed a new maple-flavored oat cereal called "Maypo." The company survived various changes in ownership, the last of which closed the Burlington plant in 1969 and moved the operation out of state; Maypo continues to be produced today by Homestat Farm, Ltd. Green Mountain Industries opened a woodworking factory in the complex in 1973, and a Burlington developer renovated the old factory into incubator space for small businesses in 1984.<sup>44</sup>

The old E. B. and A. C. Whiting Brush Company (#20-20c) complex remains largely intact on the northeast corner of Pine and Howard Streets, and the old buildings continue to serve a multitude of artists and small businesses. Enoch Bangs Whiting purchased an interest in the Burlington Brush Company in 1873 and convinced his son Alfred Catlin Whiting to run the business. The factory they built at the corner of Pine and Howard Streets stored and processed a variety of natural fibers for brushes. When fire destroyed the building in 1902, the Whitings built a new factory on the same site and to the same plan; over time they enlarged it significantly and added numerous ancillary structures. The primary concern of the business was the processing of wild fibers imported from China, India, Russia, Mexico, and Argentina; the fibers were cleaned, sorted, processed, dyed, and then sold to brush manufacturers. Eventually, the Whiting Company became the largest brush fiber concern in the world. A. C. Whiting sold the business and retired to Florida in 1920.<sup>45</sup> The Whiting buildings, known today as Howard Space, provide studios for dozens of artists and artisans and several retail businesses.

Another of the businesses on Pine Street with buildings extant is Welsh Brothers Maple Company (HD #15) at the corner of Marble Avenue and Pine Street. Llewellyn and Charles Welsh developed "Vermont Maid Syrup" in the late 19th century. This combination of pure Vermont maple syrup and cane sugar proved so successful they soon needed larger quarters to

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<sup>43</sup> Although Burlington saw the biggest import of lumber in its history during April of 1897 (*Burlington Free Press*, May 20, 1897, 5:7), the July 26, 1897 issue (5:2) provides that 60,000,000 board feet of lumber are waiting in Burlington Harbor. The importation of white pine from Canada has closed due to Dingley Tariff. Burlington residents marched in protest of the lumber tariff unsuccessfully. *Burlington Free Press*, June 14, 1897, 5:3.

<sup>44</sup> Blow, *Historic Guide*, 89.

<sup>45</sup> Blow, *Historic Guide*, 90.

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keep up with demand. Their new factory, designed by Burlington architect Frank Lyman Austin, was erected in 1917 and enlarged at several points. The company was purchased in 1928 and again in 1968, when production was moved to New Jersey.<sup>46</sup>

Bullocks Standard Steam Laundry (HD #6) was established on part of the old Goodell and Company stone works in 1925, and Michael C. Dorn built a bottling plant at 266 Pine Street (HD #7) to produce his Venetian Ginger Ale that same year. Dorn expanded in 1938 and by 1942 the company had merged with Coca-Cola. The complex was purchased and converted to incubator space in 1989; Conant Metal and Light purchased it in 2000 and connected it to its original location at 270 Pine Street (HD #8).

The Pine Street Industrial Historic District includes two buildings on South Champlain Street. The National Biscuit Company (Nabisco) set up shop on College Street in 1898, making only bread at that time. The company moved production to a factory at 266 South Champlain Street (HD #4), built in 1923 on the site of an old planing mill. The building has provided office space among other uses. Champlain Valley Fruit Company erected a modest L-shaped warehouse at 237 South Champlain Street (HD #3) in the early 20<sup>th</sup> century. Like many structures in the district, this one was enlarged and added to several times over the years; it currently combines a warehouse for Vermont Cabot Cheese and an expanding distillery operation that manufactures alcohol-based organic bitters and herbal tonics marketed through health food stores.



Figure 9: Detail of Lithograph of the Kilburn and Gates Mill looking northwesterly by Beers, J.B. & Co. Courtesy of Special Collections, Bailey/Howe Library, University of Vermont.

<sup>46</sup> Blow, *Historic Guide*, 91.

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What remains clear is the fundamental and evolutionary role that emerging and progressively enhanced modes of transit played in turning a mud bog into a seat of manufacturing and commerce that has continued for more than a century and a half. Lawrence Barnes' inchoate vision to fuel Burlington business by linking water and road to rail spawned a transportation network with tendrils that encompassed pedestrian path, carriage and cartways, canal tow paths, turnpikes, rail beds, shipping lanes, ferry route, bike paths and highway. This web interconnected land, water and rail as well as worker, workplace, and market. J. B. Beers' lithograph (Figure 8) shows combinations of man and beast, cart and wagon, ship and railroad managing the daily activity of transporting Burlington's manufactured goods on linked pathways. These complex transportation corridors were the circulation system that assured the success of the manufacturing base and ultimately Burlington's overall economy. Historic maps confirm that while some modes changed, corridors remain present and vibrant. A comparison between a 1937 ortho photograph (below left) and a 2015 image (below right) reinforce the continuing connections and pathways between Pine Street, South Champlain Street, and Battery Street; confirmation of continuing historic transportation patterns and fabric.



This advancing intermodal network not only connected goods to manufacturing sites and products to market; it accommodated local workforce access to production sites as well. The business boom was paralleled by worker influx, reciprocal in need and benefit; one augmenting the other. The increasing number of manufacturing employees could find housing proximate to workplace, filling Burlington's older and new neighborhoods with a strong and large local

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workforce. This was the identity of many neighborhoods, with labor force walking to job sites within the district.

The story of economic development in the South End has complex connections with rising population of the city, an increase in immigrant workers, housing expansion, growth of educational services, a rising number of professional trades and tradesmen, expansion of roadways and transportation systems, and other related but predictable social markers. Each of these stories finds its basis in the Pine Street Industrial Historic District.

Some of the district's manufacturing buildings are gone – victims of fire and economic turmoil. Those that remain have taken on new uses over the years to keep them productive. Structures and sites within the district largely retain historic integrity of location, design, setting, materials, workmanship, feeling, and association. Pine Street and its immediate area have undergone a revival in the past three decades, with a new generation of entrepreneurs re-developing the old buildings to keep them viable in today's economy. The Pine Street Industrial Historic District continues the spirit of manufacturing with a new wave of "maker" spaces that have created a ripple wave of small industry. The early investments of Timothy Follett and Lawrence Barnes toward an enhanced transportation system continue to be the foundation for the success of the Pine Street Industrial Historic District. Those networks remain complex and interconnected, demonstrating evolutionary adaptability to accommodate access for walker, biker, truck, trailer, kayaker, ferry, locomotive, or SUV. With a blended identity of manufacturing and creative industry, the Pine Street Industrial Historic District has become the center of a vibrant art and artisan community in Burlington's South End. This new wave of enterprise is primarily known for its creativity, vitality, and innovation; the foundation on which it was born.

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## 9. Major Bibliographical References

### **Bibliography** (Cite the books, articles, and other sources used in preparing this form.)

Amrhein, Joseph. "Burlington, Vermont: The Economic History of a Northern City." PhD diss., New York University School of Business Administration, 1958.

*Annual Report of the Rutland Railroad Company to the Stockholders.* Rutland: Tuttle, 1874.

Baker, Charity M., Allen Hathaway, and Douglas S. Frink. *Archaeological Studies of the Main Street Upgrade Project in the City of Burlington, Chittenden County, Vermont.* Vol. I & II. Randolph: Dubois & King, 2002.

Blow, David J., *Historic Guide to Burlington Neighborhoods.* Volumes I–III. Burlington: Chittenden County Historical Society, 1991.

Burlington City Assessor's Files, City Hall, Burlington, Vermont.

*Burlington Free Press.* "The Industry of Burlington: New and Important Enterprises." May 1, 1868.

*Burlington Free Press.* "April 1897 sees biggest imports of lumber in history." May 20, 1897.

*Burlington Free Press.* "Burlington Marches in Protest of Lumber Tariff." June 14, 1897.

Chase, George B. *A Letter to the Directors of the Rutland Railroad Company Concerning an Alteration of Their Records.* Boston: Franklin Press, 1879.

Child, Hamilton. *Gazetteer and Business Directory of Chittenden County for 1882-83.* Syracuse, NY: Printed at Journal Office, 1882.

Clough Harbour and Associates LLP, comp. *Southern Connector/Champlain Parkway MEGC-M5000 (1): Building Alternatives 1 (Battery Street Extension) and 2 (Pine Street).* Albany: Werner Archaeological Consulting, LLC, 2007.

Cohn, Arthur Bruce, email communication to M. O'Neil, March 10, 2015.

Cohn, Art. *Lake Champlain's Sailing Canal Boats: An Illustrated Journey From Burlington Bay to the Hudson River.* Basin Harbor, VT: Lake Champlain Maritime Museum, 2003.

Cook, Lauren J. and John P. McCarthy. *A Stage IA Cultural Resources Survey of the Pine Street Canal Superfund Site Burlington Vermont.* Connecticut: John Milner Associates, 1992.

Pine Street Industrial Historic District  
Name of Property

Chittenden County, VT  
County and State

Cook, Melissa. "The Cotton Mill Ghost." *CCHS Bulletin* 29 (Fall 1995): 2.

Corey, Richard P. and James B. Petersen. *An Archaeological Phase IA Study of the C-6 Alignment, Southern Connector Project, MEGC-M5000(1)*, Burlington, Chittenden County, Vermont. Submitted to the Vermont Agency of Transportation by the Archaeology Research Center, Department of Social Sciences and Business, University of Maine at Farmington. 1998.

*The Daily Free Press and Times*. "Burlington and Lamoille Railroad- Seven or eight acres of land at the foot of Pine street, in the vicinity of the mill of Bronsons, Weston Greene & Co., on the 'Basin' have been purchased of Lawrence Barnes, Esq...the 'Basin' to be extended according to the original plan...." June 14, 1875, 3:3.

Fay, Lawrence. "The Burlington Boat Basin". University of Vermont Historic Preservation Program student paper; copy on file in Special Collections, Bailey-Howe Library, University of Vermont.

Fox, Gerald, personal interview with M. O'Neil, February 20, 2015, March 16, 2015.

Fox, Gerald, email communications to M. O'Neil, March 8, 2015 and March 10, 2015.

Gove, William G. "Burlington the Former Lumber Capital." *Northern Logger and Timber Processor*, May 1971: 19-43.

John Milner Associates. *A Stage IA Cultural Resources Survey of the Pine Street Canal Superfund Site Burlington VT*. Danbury: John Milner Associates, 1992.

Kane, Adam I., Christopher R. Sabick, Joanne M. DellaSalla and Arthur B. Cohn. *Phase I Archaeological Survey of Burlington Harbor in Lake Champlain, Burlington, Chittenden County, Vermont*. Vergennes: Lake Champlain Maritime Museum, July 2008.

Lake Champlain Maritime Museum. *Sloop Island Canal Boat Study: Phase III Archaeological Investigation in Connection with the Environmental Remediation of the Pine Street Canal Superfund Site*. Boston: Environmental Protection Agency, 2010.

McVarish, Douglas V., Joel I. Klein, and J. Lee Cox, Jr. *Pine Street Canal Superfund Site, Burlington, Chittenden County, Vermont: Historic Resources Study*. Croton-on-Hudson, NY: John Milner Associates, 2001.

Norwood, Karyn. "From Cereal to Can Openers: Historic Industries along Pine Street." *Mills & Factories: Manufacturing Heritage Sites in Burlington and Winooski, Vermont*. The University of Vermont.  
<http://www.uvm.edu/~hp206/2013/pages/norwood/index.html>. (accessed November 3, 2015).

Pine Street Industrial Historic District  
Name of Property

Chittenden County, VT  
County and State

Nimke, R.W. *The Rutland: Betterments, Statistics, Traffic, Equipment, Plans, Structures, Fixtures*. Walpole NH: RR#1 Walpole, 1989.

Nimke, R. W. *The Rutland: Betterments, Statistics, Traffic, Equipment, Plans, Structures, Fixtures*. Vol. V. The Main Line. Walpole NH: Nimke, 1990.

Ober, Lauren. "Art's Start: How a South End Neighborhood Went From Pallets to Palettes." *Seven Days* (Burlington VT), September 9-16, 2009, p. 24A.

Orr, David Wallace. "The Port of Burlington, Vermont: Site and Situation, A Study in Historical Geography". Master's Thesis, University of Vermont, 1972.

Pritchett, Liz. *Historic Resource Review Vermont Agency of Transportation Southern Connector/Champlain Parkway Project MEGC-M5000(1) Chittenden County, Burlington Vermont*. Montpelier: Earth Tech, 1996.

Rann, W. S. *History of Chittenden County, Vermont, with Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers*. Syracuse, NY: D. Mason &, 1886.

Shaughnessy, Jim. *The Rutland Road*. Berkeley CA: Howell-North Books, 1964.

Simmon, Virginia Lindauer. "Rent Control." *Business People Vermont*, October 10, 2009.

U.S. Army Corps of Engineers. *Recordation of Portions of the Burlington Breakwater in Lake Champlain, City of Burlington Chittendon [sic] County, Vermont in Connection with the Proposed Structural Repair Activities and Section 110 Responsibilities*. Memphis: Panamerican Consultants, Final Report December 2002.

U.S. Army Corps of Engineers. *Recordation of Portions of the Burlington Breakwater in Lake Champlain, City of Burlington Chittenden County, Vermont in Connection with the Proposed Structural Repair Activities*. Memphis: Panamerican Consultants, 2001.

Vanasse, Hangen, Brustlin, *Burlington and Rutland Railyard Relocation Feasibility Study*. Montpelier: Vermont Agency of Transportation, 2000.

Vermont. Board of Railroad Commissioners. *Biennial Report of the Railroad Commissioners for 1871-72*. Sl:sn, 1872.

Vermont. Board of Railroad Commissioners. *Biennial report of the Board of Railroad Commissioners of the State of Vermont*. Vermont: Sl.sn., 1888-1908.

Ibid., *Report of the Railroad Commissioners of the State of Vermont*. Burlington: The Free Press Association, 1890.

Pine Street Industrial Historic District  
Name of Property

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County and State

## Maps

*Atlas of Chittenden County* (New York, NY: F.A. Beers, 1869).

*Bird's Eye View of Burlington and Winooski, Vermont* (Madison, Wisc: J. J. Stoner, 1877).

*Burlington, Vermont* (New York, NY: Sanborn Fire Insurance Maps) – 1885, 1889, 1894, 1900, 1906, 1912, 1929, 1926/1938, 1942/1960.

*Map of the City of Burlington, Vermont* (Philadelphia, Pa: G. M. Hopkins, 1890).

Web tool: <http://wboykinm.github.io/btv-1937/#17/44.47153/-73.21501>  
Burlington 1937/2015.

---

### Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # \_\_\_\_\_
- recorded by Historic American Engineering Record # \_\_\_\_\_
- recorded by Historic American Landscape Survey # \_\_\_\_\_

### Primary location of additional data:

- State Historic Preservation Office
  - Other State agency
  - Federal agency
  - Local government
  - University
  - Other
- Name of repository: University of Vermont, Special Collections  
Agency of Transportation, State of Vermont

Historic Resources Survey Number (if assigned): \_\_\_\_\_

Pine Street Industrial Historic District  
Name of Property

Chittenden County, VT  
County and State

---

## 10. Geographical Data

**Acreege of Property** 92.6 acres +/-

Use either the UTM system or latitude/longitude coordinates

**Latitude/Longitude Coordinates** *See attached map with Lat/Long Coordinates*

Datum if other than WGS84: NAD83

(enter coordinates to 6 decimal places)

- |              |            |
|--------------|------------|
| 1. Latitude: | Longitude: |
| 2. Latitude: | Longitude: |
| 3. Latitude: | Longitude: |
| 4. Latitude: | Longitude: |

**Or**

### UTM References

Datum (indicated on USGS map):

NAD 1927 or  NAD 1983

- |             |          |           |
|-------------|----------|-----------|
| 1. Zone: 18 | Easting: | Northing: |
| 2. Zone: 18 | Easting: | Northing: |
| 3. Zone: 18 | Easting: | Northing: |
| 4. Zone: 18 | Easting: | Northing: |

### Verbal Boundary Description (Describe the boundaries of the property.)

The Pine Street Industrial Historic District boundary is defined by the area that housed the lumber and allied industries after the construction of the Barge Canal in 1868-1869. The boundary of the Pine Street Industrial Historic District is shown as the dashed line on the

Pine Street Industrial Historic District  
Name of Property

Chittenden County, VT  
County and State

accompanying map titled "Pine Street Industrial Historic District, City of Burlington, Chittenden County, Vermont."

**Boundary Justification** (Explain why the boundaries were selected.)

The Pine Street Industrial Historic District boundary was drawn to include the area of historic resources relating to the industrial development of Pine Street made possible by the arrival of the railroad in 1849 and the building of the Barge Canal and Basin in 1868-69. The industrial development recognized by the Pine Street Industrial Historic District was located south of Maple Street. The eastern boundary marks the edge of the industrial center at the point it gives way to residences. The properties east of the District's eastern boundary are nearly all residential, with one or two small retail businesses. The southern tip of the barge canal and the Maltex property form the southern boundary because that is where the relevant and contributing historic resources end. The area surround the barge canal includes several acres of undeveloped land that have been designated a superfund site by the Environmental Protection Agency. There are two factories on the east side of Pine just south of Howard Street, but they would be non-contributing due to age. No resources relating to the Pine Street Industrial Historic District have been identified further south. The District is bounded on the west by Lake Champlain, and extends into the lake around the outer edges of the two breakwaters.

---

**11. Form Prepared By**

name/title: Jane Williamson Historic Preservation Consultant

organization: \_\_\_\_\_

street & number: 25 Calarco Court

city or town: Burlington state: VT zip code: 05401

e-mail: [mejane@sover.net](mailto:mejane@sover.net)

telephone: 802-658-7716

date: August 2010

name/title: Mary O'Neil, City of Burlington Planning and Zoning Department, Certified Local Government Coordinator.

organization: City of Burlington

street & number: 149 Church Street

city or town: Burlington state: VT zip code: 05401

e-mail: [mconeil@burlingtonvt.gov](mailto:mconeil@burlingtonvt.gov)

Pine Street Industrial Historic District  
Name of Property

Chittenden County, VT  
County and State

telephone: 802-865-7556

date: March 2016

name/title: Devin Colman, State Architectural Historian

organization: Vermont Division for Historic Preservation

street & number: 1 National Life Drive, Floor 6

city or town: Montpelier state: VT zip code: 05620

e-mail: [devin.colman@vermont.gov](mailto:devin.colman@vermont.gov)

telephone: 802-828-3043

date: March 2017

---

### **Additional Documentation**

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

### **Photographs**

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

### **Photo Log**

Name of Property: Pine Street Industrial Historic District

City or Vicinity: Burlington

County: Chittenden

State: VT

Photographer: Mary O'Neil

Pine Street Industrial Historic District  
Name of Property

Chittenden County, VT  
County and State

Date Photographed: December 12, 2015

Description of Photograph(s) and number, include description of view indicating direction of camera:

- 1 of 65: View looking north/northeast at HD #1b Railroad Engine Roundhouse.
- 2 of 65: View looking south at railroad tracks and train in HD #1 Burlington Rail Yard.
- 3 of 65: View looking southwest at HD #1e Salt Shed (center) and HD #1g Shelburne Limestone Building (left).
- 4 of 65: View looking east at HD #2 Warehouse.
- 5 of 65: View looking south at HD #1c Turntable and HD #1a Vermont Railway Headquarters.
- 6 of 65: View looking north at HD #3. Champlain Valley Fruit Company.
- 7 of 65: View looking north at the northern section of HD #3. Champlain Valley Fruit Company.
- 8 of 65: View looking north/northwest at HD #1c Turntable, HD #1b Railroad Engine Roundhouse, and HD # 1d Pumphouse/Boiler Room.
- 9 of 65: View looking southwest at HD #4 National Biscuit Company.
- 10 of 65: View looking north/northwest at HD #1a Vermont Railway Headquarters and HD #1d Pumphouse/Boiler Room.
- 11 of 65: View looking southwest at HD #5 Bobbin Mill Condominiums.
- 12 of 65: View looking west at HD #6a Storage Shed, with north end of HD #6 on left.
- 13 of 65: View looking west at HD #6b Vermont Art Supply.
- 14 of 65: View looking northwest at HD #6 Bullocks Standard Steam Laundry.
- 15 of 65: View looking east at HD #7 M. & F.C. Dorn Bottling Works.
- 16 of 65: View looking southeast at HD #7 M. & F.C. Dorn Bottling Works.
- 17 of 65: View looking northwest at HD #9 Curtis Lumber.

Pine Street Industrial Historic District  
Name of Property

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- 18 of 65. View looking west at HD #9a Shed.
- 19 of 65. View looking west at HD #9b Lumber Shed.
- 20 of 65. View looking northeast at HD #10 White's Pure Milk Products.
- 21 of 65. View looking north at HD #10 White's Pure Milk Products.
- 22 of 65. View looking northwest at HD #10 White's Pure Milk Products.
- 23 of 65. View looking southeast at HD #11 Kilburn and Gates.
- 24 of 65. View looking east along north wall of HD #11 Kilburn and Gates.
- 25 of 65. View looking west from St. Paul Street at HD #11 Kilburn and Gates. Brick engine house in foreground.
- 26 of 65. Detail of "1869" date block on chimney at HD #11 Kilburn and Gates.
- 27 of 65. View looking east at additions on south wall of HD #11 Kilburn and Gates.
- 28 of 65. View looking east at HD #12 Hulbert Supply Company.
- 29 of 65. View looking west at HD #13 Burlington Street Department.
- 30 of 65. View looking southeast at HD #14 Meunier Store/Glove Factory/Dwelling.
- 31 of 65. View looking northeast at HD #7 M. & F.C. Dorn Bottling Works (left) and HD #8 Burlington Venetian Blind Company Office (right).
- 32 of 65. View looking northeast at south wall of HD #8 Burlington Venetian Blind Company Office (left) and rear of HD #7 M. & F.C. Dorn Bottling Works.
- 33 of 65. View looking south across Marble Avenue at the north façade of HD #15 Welsh Brothers Maple Company.
- 34 of 65. View looking northeast at south façade and west elevation of HD #15 Welsh Brothers Maple Company.
- 35 of 65. View looking west at HD #17 Citizens Coal/Oil Company.
- 36 of 65. View looking north along railroad siding tracks between HD #17 Citizens Coal/Oil Company (left) and Pine Street (right).

Pine Street Industrial Historic District  
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- 37 of 65. View looking west at HD #17a Wagon Shed.
- 38 of 65. View looking north at HD #17b Stable/Carriage Barn.
- 39 of 65. View looking west at HD #17c Storage Building.
- 40 of 65. View looking south along railroad siding tracks between Pine Street (left) and HD #18 (right).
- 41 of 65. View looking southwest at HD #19 Malted Cereal Company.
- 42 of 65. View looking southwest at HD #19 Malted Cereal Company.
- 43 of 65. View looking northwest at HD #19 Malted Cereal Company.
- 44 of 65. View looking north at HD #19 Malted Cereal Company.
- 45 of 65. View looking southeast at HD #20a Fiber Machine Shop (right) and HD #20c Industrial Building (left).
- 46 of 65. View looking southeast at HD #20 E.B. and A.C. Whiting Company.
- 47 of 65. View looking northeast at HD #20a Fiber Machine Shop.
- 48 of 65. View looking northeast at HD #20b Combing and Dye House.
- 49 of 65. View looking west at rear of HD #20 E.B. and A.C. Whiting Company.
- 50 of 65. View looking north at HD #20 E.B. and A.C. Whiting Company.
- 51 of 65. View looking north/northwest at HD #21j Breakwaters.
- 52 of 65. View looking north at HD #22 Drawbridge.
- 53 of 65. View looking north at HD #22 Drawbridge, detail of raising/lower mechanisms.
- 54 of 65. View looking south into HD #1 Burlington Rail Yard, with HD #2 Warehouse on left.
- 55 of 65. View looking north along Pine Street, with HD #16 Warehouse and Office on the left and HD #14 Meunier Store/Glove Factory/Dwelling on right.
- 56 of 65. View looking southwest at HD #18 Farrell Distributors (foreground) and HD #19 Malted Cereal Company (background).

Pine Street Industrial Historic District  
Name of Property

Chittenden County, VT  
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- 57 of 65. View looking south along Pine Street, with HD #20c Fiber Machine Shop and HD #20 E.B. and A.C. Whiting Company on left, and HD #19 Malted Cereal Company on right.
- 58 of 65. View looking southeast at rear portions of HD #20 E.B. and A.C. Whiting Company.
- 59 of 65. View looking west at HD #21 Pine Street Barge Canal basin and HD #22 Drawbridge.
- 60 of 65. View looking south/southeast at HD #22 Drawbridge, with train.
- 61 of 65. View looking west/northwest at 21j Breakwaters, from HD #22 Drawbridge.
- 62 of 65. View looking south/southeast at railroad tracks between HD #9 Curtis Lumber (left) and HD #9b Lumber Shed (right).
- 63 of 65. View looking south/southeast from Roundhouse Point across sites of HD #24 Construction Barges, HD #25 *Excelsior*, and HD #21j Breakwaters (rear center).
- 64 of 65. View looking southwest at HD #21 Pine Street Barge Canal Basin.
- 65 of 65. View looking west/southwest from Roundhouse Point at portion of breached breakwater and site of HD #25 *Excelsior*.

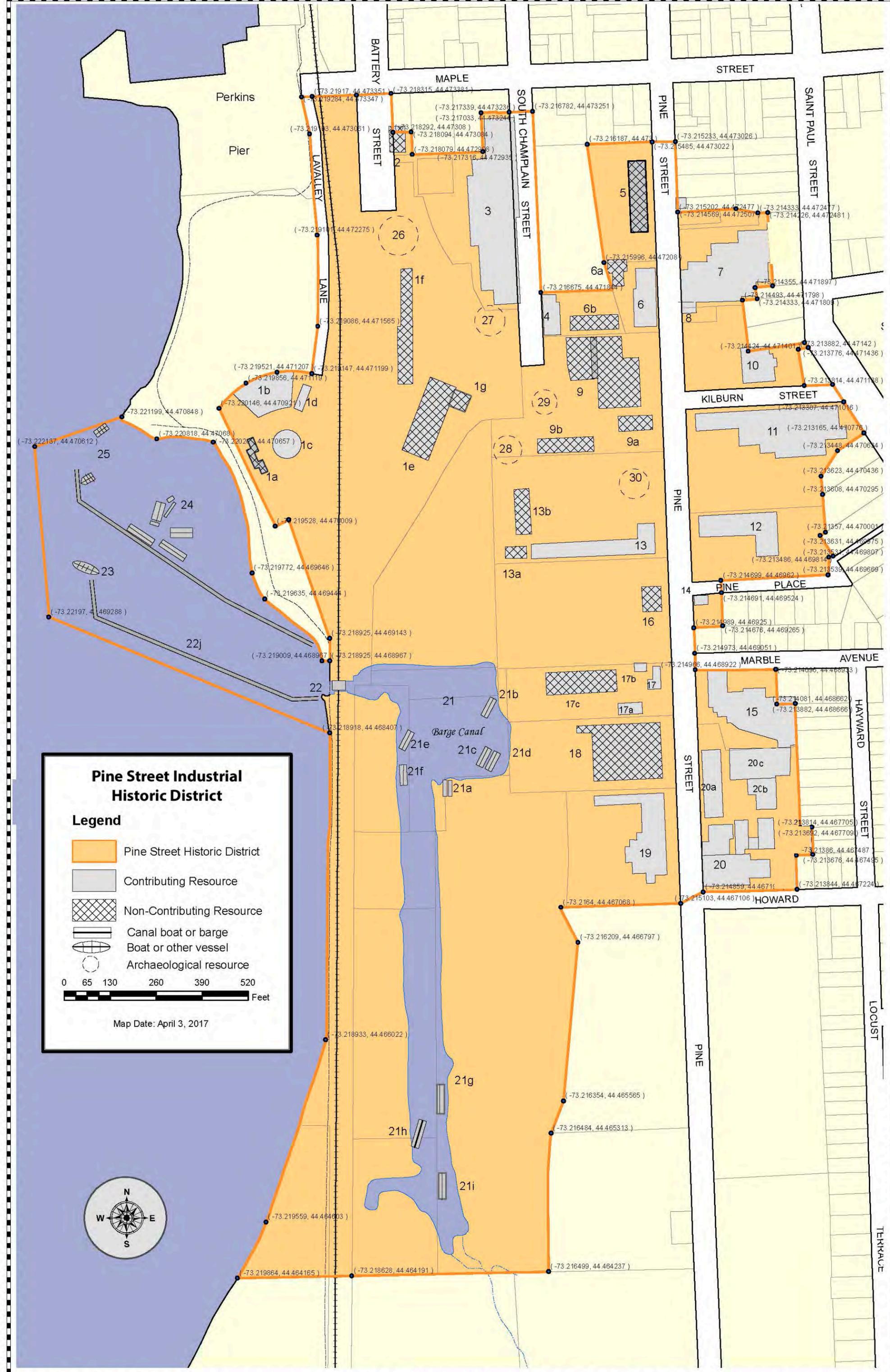
**Paperwork Reduction Act Statement:** This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

**Estimated Burden Statement:** Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding

Pine Street Industrial Historic District  
Name of Property

Chittenden County, VT  
County and State

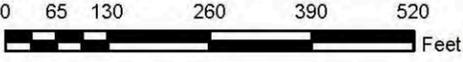
this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior,  
1849 C. Street, NW, Washington, DC.



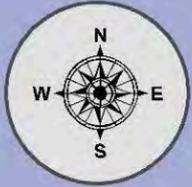
### Pine Street Industrial Historic District

#### Legend

- Pine Street Historic District
- Contributing Resource
- Non-Contributing Resource
- Canal boat or barge
- Boat or other vessel
- Archaeological resource

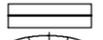


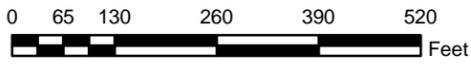
Map Date: April 3, 2017



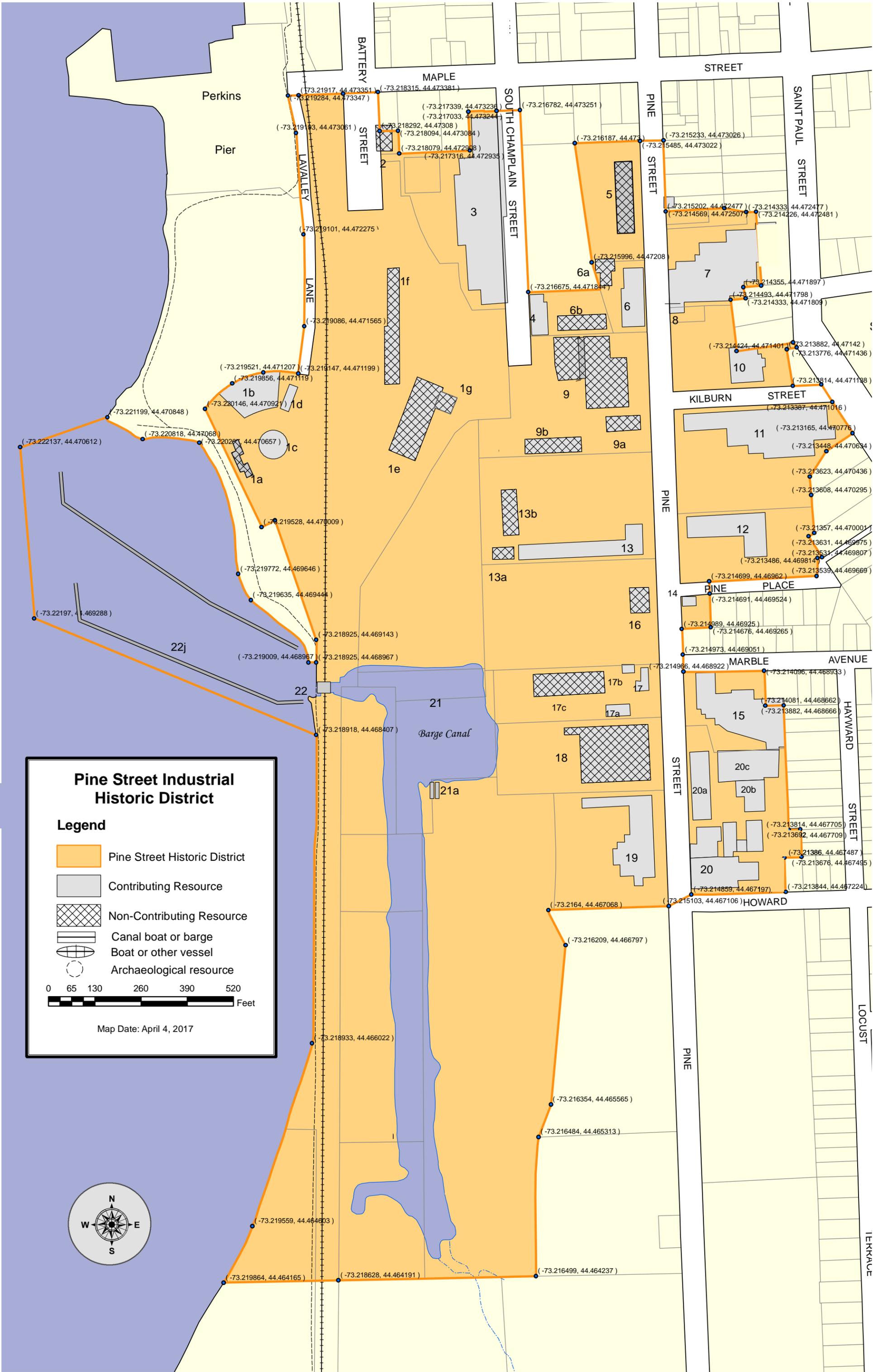
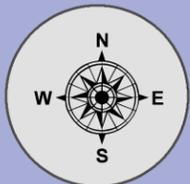
# Pine Street Industrial Historic District

## Legend

-  Pine Street Historic District
-  Contributing Resource
-  Non-Contributing Resource
-  Canal boat or barge
-  Boat or other vessel
-  Archaeological resource



Map Date: April 4, 2017



United States Department of the Interior  
National Park Service

# National Register of Historic Places Continuation Sheet

\_\_\_\_\_  
Name of Property

\_\_\_\_\_  
County and State

Section number \_\_\_\_\_ Page \_\_\_\_\_

\_\_\_\_\_  
Name of multiple property listing (if applicable)

## SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 100001751

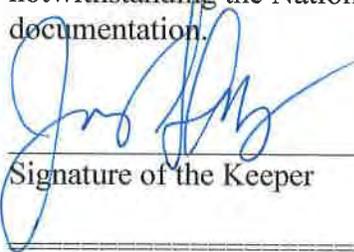
Date Listed: 10/16/2017

Property Name: Pine Street Industrial Historic District

County: Chittenden

State: VT

-----  
This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

  
\_\_\_\_\_  
Signature of the Keeper

10/16/2017  
\_\_\_\_\_  
Date of Action

Amended Items in Nomination:

Section 10: Lat/ Long coordinates

**Pine Street Industrial Historic District  
Burlington, Vermont**

Lat/Long Coordinates, starting at top left corner, going clockwise:

Latitude	Longitude
44.473347	-73.219284
44.473351	-73.21917
44.473381	-73.218315
44.47308	-73.218292
44.473084	-73.218094
44.472908	-73.218079
44.472935	-73.217316
44.473236	-73.217339
44.473244	-73.217033
44.473251	-73.216782
44.471844	-73.216675
44.47208	-73.215996

Property Name: Pine Street Industrial Historic District

County: Chittenden

State: VT

44.473026	-73.215233
44.472477	-73.215202
44.472507	-73.214569
44.472477	-73.214333
44.472481	-73.214226
44.471897	-73.214355
44.471809	-73.214333
44.471798	-73.214493
44.471401	-73.214424
44.47142	-73.213882
44.461436	-73.213776
44.471138	-73.213814
44.471016	-73.213387
44.470776	-73.213165
44.470634	-73.213448
44.470436	-73.213623
44.470295	-73.213608
44.470001	-73.21357
44.469975	-73.213631
44.469807	-73.213531
44.469814	-73.213486
44.469669	-73.213539
44.46962	-73.214699
44.469524	-73.214691
44.469265	-73.214676
44.46925	-73.214989
44.469051	-73.214973
44.468922	-73.214966
44.468933	-73.214096
44.468662	-73.214081
44.468666	-73.213882
44.467705	-73.213814
44.467709	-73.213692
44.467487	-73.21386
44.467495	-73.213676
44.467224	-73.213844
44.46719	-73.214859
44.467106	-73.215103
44.467068	-73.2164
44.466797	-73.216209
44.465565	-73.216354
44.465313	-73.216484
44.464237	-73.216499
44.464191	-73.218628
44.464165	-73.219864

Property Name: Pine Street Industrial Historic District

County: Chittenden

State: VT

44.464603	-73.219559
44.466022	-73.218933
44.468407	-73.218918
44.469288	-73.22197
44.470612	-73.222137
44.470848	-73.221199
44.47068	-73.220818
44.470657	-73.22026
44.469646	-73.219772
44.469444	-73.219635
44.468967	-73.219009
44.468967	-73.218925
44.469143	-73.218925
44.470009	-73.219528
44.470921	-73.220146
44.471119	-73.219856
44.471207	-73.219521
44.471199	-73.219147
44.471565	-73.219086
44.472275	-73.219101
44.473061	-73.219193

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The Vermont State Historic Preservation Office was notified of this amendment.

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**DISTRIBUTION:**

**National Register property file**

**Nominating Authority (without nomination attachment)**



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Vermont Division**

May 5, 2017

87 State Street  
Montpelier, VT 05602  
(802) 828-4423  
(802) 828-4424  
Vermont.fhwa@dot.gov

In Reply Refer To:  
HEC-VT

Ms. Andrea Wright, P.E.  
Environmental Services Engineer  
Vermont Agency of Transportation  
1 National Life Drive  
Montpelier, VT 05633-5001

Subject: Southern Connector/Champlain Parkway  
FAP No. M5000(1)  
Burlington, Vermont  
Section 4(f) De Minimis Determination

Dear Ms. Wright:

We have reviewed the April 6, 2017 electronic request by VTrans requesting our determination that the use of Section 4(f) properties on the above project meets the requirements to qualify as a de minimis impact in accordance with 23 CFR 774.3(b). A diagnostic review of railroad crossings within 1,000 ft. of the Southern Connector project has resulted in additional work at a number of these crossings. Reconstruction of the at-grade railroad crossing on Flynn Avenue includes sidewalk improvements that will require the acquisition of a permanent easement from an adjacent historic property which is eligible for listing in the National Register of Historic Places. The permanent easement totals 229 ft<sup>2</sup>. The minor use of land does not adversely affect the historic quality or integrity of the property.

Based on the information attached to your request we have made the following determinations (**in bold**) with respect to question 2A of FHWA's Final Guidance for Determining De Minimis Impacts to Section 4(f) Resources dated December 13, 2005. See also 23 CFR 774.5(b)(1) and 23 CFR 774.17.

Question 2A: What are the requirements for a finding of *de minimis* impact on a historic site?

Answer: A finding of *de minimis* impact on a historic site may be made when:

- 1) The process required by Section 106 of the National Historic Preservation Act results in the determination of "no adverse effect" or "no historic properties affected" with the concurrence of the SHPO and/or THPO, and ACHP if participating in the Section 106 consultation;

**Qualified professionals within VTrans are authorized under the terms of the 4/5/99 Programmatic Agreement to implement the Federal-Aid Highway**

**Program in Vermont, to document and make Section 106 determinations of effect for transportation projects on behalf of VT-SHPO. FHWA has reviewed and concurred with the Section 106 amendment memo dated April 6, 2017 prepared by VTrans concluding that the work associated with the Flynn Avenue at-grade railroad crossing reconstruction as part of the Southern Connector/Champlain Parkway project will have no adverse effect.**

- 2) The SHPO and/or THPO, and ACHP if participating in the Section 106 consultation, is informed of FHWA's or FTA's intent to make a *de minimis* impact finding based on their written concurrence in the Section 106 determination.

**Under the terms of the 4/5/99 Programmatic Agreement, VTrans provides copies of Section 106 determinations of effect and supporting documents to VT-SHPO. The SHPO has been informed of the intent to make a *de minimis* finding under Section 4(f) based on the No Adverse Effect determination.**

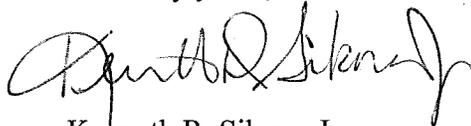
- 3) FHWA or FTA has considered the views of any consulting parties participating in the Section 106 consultation.

**As part of its standard Section 106 consultation process, VTrans ensures that Section 106 consulting parties are afforded an opportunity to comment, and that these views are considered during the project development process. This project has been managed by the City of Burlington since 2003. Numerous public meetings have been held since that time, including several attended by the VTrans Historic Preservation Officer at the time. The alternative being advanced for the Champlain Parkway was ultimately selected by the City as the preferred alternative based on extensive consultation and public input. It is also the alternative with the least amount of impact to historic properties.**

Based on the above determinations we have concluded that the project circumstances satisfy the requirements for a *de minimis* impact determination under 23 CFR 774.3(b). These findings complete the Section 4(f) requirements for the use of historic resources for this project.

If you have any questions please contact this office.

Sincerely yours,



Kenneth R. Sikora, Jr.  
Environmental Program Manager

Historic Resource Group, Environmental Section  
Vermont Agency of Transportation  
National Life Building, Drawer 33  
Montpelier, VT 05633



Archaeology 802-828-3981 (fax) 828-2334 [jeannine.russell@state.vt.us](mailto:jeannine.russell@state.vt.us)  
Historic Preservation 802-828-3964 (fax) 828-2334 [scott.newman@state.vt.us](mailto:scott.newman@state.vt.us)

## MEMORANDUM

---

To: Rob Sikora, FHWA

Date: May 18, 2011

Subject: NO ADVERSE EFFECT (Changed Scope of Work)

Project Name: Champlain Parkway / Southern Connector

Project Number: Burlington MEGC-M5000(1)

Location: Burlington, VT

Distribution: State Historic Preservation Officer  
Jeff Ramsey, VTrans Environmental Specialist  
Jen Russell, VTrans Archaeologist  
Environmental Files via John Narowski

---

The Vermont Agency of Transportation has reviewed this undertaking according to the standards and procedures detailed in the 4/5/99 Programmatic Agreement to implement the Federal-Aid Highway Program in Vermont and, the PA Manual of Standards and Guidelines. Project review consists of identifying the project's potential impacts to historic buildings, structures, historic districts, historic landscapes, and settings, and to known or potential archeological resources.

The following details the VAOT Officers findings supporting our effect determination of NO ADVERSE EFFECT for the above-subject project. **Due to significant changes to project design since the original review in 1996, this Section 106 Determination of Effect letter vitiates and supersedes the 1996 Adverse Effect Memorandum of Agreement and its amendments.** Changes to design have resulted in a No Adverse Effect Determination. This document evidences that FHWA has satisfied its obligations under Section 106 for this undertaking.

### Project Description:

The 2.5 mile long Champlain Parkway is proposed to extend from Route 7 to Lakeside Avenue, then continue on existing Lakeside Avenue and Pine Street, terminating at Main Street in Burlington, Vermont. The Project was first proposed in 1975 as a four-lane highway known as the "Southern Connector." The section extending from Route 7 to Home Avenue was nearly completed in the 1980s but the remaining sections could not be built due to the Pine Street Barge

Canal Superfund Site. The Barge Canal site is no longer part of the Project. The Project has been reduced in size to a two-lane roadway designed primarily to carry truck and commuter traffic destined for nearby industrial and commercial areas in the Enterprise District, the Transit Station and Park and Ride facility, or into downtown Burlington. The Project involves new roadways terminating at Lakeside Avenue. From this location the route will follow existing streets, with traffic continuing into downtown Burlington along Lakeside Avenue to Pine Street.

The Champlain Parkway begins at the current terminus of I-189 at Route 7. What is now I-189 would gradually be reduced to two lanes west of Route 7 following the alignment of the former Southern Connector roadway constructed in the 1980s to Home Avenue. From there the Champlain Parkway would be constructed within an existing right-of-way as a two-lane roadway that extends to Lakeside Avenue. From this point the Parkway would follow existing streets heading east on Lakeside Avenue and then follow Pine Street north, terminating at Main Street.

Between Home Avenue and Lakeside Avenue, the newly constructed Project will include a shared use path along one side and landscaped greenbelts and 6-foot high picket-style black fencing along both sides. Some residential streets will become dead ends. Traffic signals and pedestrian crosswalks will be located at Home Avenue, Flynn Avenue, Sears Lane and Lakeside Avenue. Lakeside Avenue would be reconstructed through its intersection with Pine Street. Pine Street would be repaved between Locust Street and Main Street at approximately the same street dimensions as they are now. A new shared use path is proposed to run along the north side of Lakeside Avenue, continuing along the west side of Pine Street until Kilburn Street. Existing sidewalks would be replaced and street trees would be retained, where feasible. A more detailed description of each section follows:

#### Route 7 to Home Avenue

Currently I-189 ends just west of the Route 7 interchange. The current interchange will remain but portions will be reconstructed as part of the Project. From Route 7 the Champlain Parkway would be reduced in size and rebuilt as a two lane roadway with narrower lanes and landscaped median and greenbelts to Home Avenue. There will be a separate shared-use path for pedestrians and bicycles along the north/east side of the Parkway between Route 7 and Pine Street. This section was partially built in the 1980s and included considerable landscaping as well as visual and sound barrier fences along neighboring housing developments. The roadway would narrow to one-lane in each direction with a landscaped median approximately 22 feet wide. Lilacs, Northern Bayberry and ornamental grasses will be planted in the center and surrounded by lawn. See Appendix B for a simulation of this section of the Parkway. As part of the Project the south end of Pine Street will become a cul-de-sac eliminating the current connection to Queen City Park Road.

#### Home Avenue to Lakeside Avenue

From Home Avenue to Flynn Avenue the Parkway enters an area of mixed residential neighborhoods including business and industrial uses. For most of its length the Parkway would follow an existing right-of-way that has grown up to woodlands. Between Flynn Avenue and Sears Lane, the Parkway would cross Englesby Brook. At Sears Lane the Parkway enters an industrial-commercial area, and terminates at Lakeside Avenue near a commuter lot and planned future transit center.

Home Avenue, Flynn Avenue, Sears Lane, and Lakeside Avenue would be signalized intersections with pedestrian crosswalks. Batchelder Street would remain as a separate residential street from Morse Place, but without an automobile connection to Home Avenue. Briggs Street would continue west of the Parkway to serve businesses and residences and would dead end near the current Petra Cliffs facility. Lyman and Ferguson Avenues would no longer be through-streets, but would end in cul-de-sacs east of the Parkway.

The roadway would be approximately 37 feet wide with a landscaped greenbelt of 10-20 feet in width along each side of the roadway. A shared use pathway approximately 10-feet wide would extend along the east side for pedestrians and bicyclists. The Parkway would be bounded by a 6-foot high black metal grill or picket-type fence in this section, which is designed to focus pedestrian crossings at the lighted intersections. Ornamental lighting poles are currently planned along the entire route. Overhead wires crossing the Parkway would be undergrounded from the Interchange to where the Parkway meets existing Lakeside Avenue. See Appendix B for simulations of the Parkway.

The landscaping plan for this section includes shade and flowering trees to line the Parkway along with some large shrubs such as lilacs. Proposed trees include Green Vase Japanese Zelkova, Crabapple varieties, Japanese Tree Lilac, Chanticleer Pear, Horsechestnut, Thornless Honeylocust, Arborvitae, Serviceberry, Freeman Red Maple, and Redbud. Perennials will be planted at the intersection with Flynn Avenue, with additional wetland perennials around the retention pond north of Flynn Avenue.

#### Lakeside Avenue and Pine Street to Main Street

Once the Parkway meets Lakeside Avenue, it will continue along existing streets—Lakeside Avenue and Pine Street—until it terminates at Main Street. Both streets would remain at approximately their current widths. A shared use path is planned to run along the north side of Lakeside Avenue and the west side of Pine Street to Kilburn Street. In addition, a continuous sidewalk is proposed along the south side of Lakeside Avenue from the Parkway to Pine Street and along the east side of Pine Street. Four-way stop signs at the intersections of Pine Street at King Street and Pine Street at Maple Street will be replaced with traffic signals including pedestrian crossing signals. Existing sidewalks would be replaced and street trees would be retained, where feasible.

#### Above-Ground Historic Resources:

The Champlain Parkway has involvement with four historic districts as detailed in Attachment 1 (excerpt from the October 2006 Supplemental Impact Statement). They are as follow:

1. Battery Street Historic District (NR-listed)
2. Lakeside Historic District (NR-listed)
3. Pine Street Historic District (NR-eligible)
4. Queen City Cotton Mill Historic District (NR-eligible)

Further explanation of the properties within the Historic Districts is included in Attachment 2 (Historic Resources Identification Report by Liz Pritchett Associates) and Attachment 3 (Excerpt from the October 2006 Supplemental Impact Statement).

As shown on Attachment 1, the project passes near the Lakeside HD, adjacent to the Queen City Cotton Mill HD, and through the Pine Street and Battery Street HD's. No historic buildings or contributing features will be adversely affected by the roadway project. Information supporting this finding is detailed in the Analysis section of the document.

#### Archaeological Resources:

The VTrans Archaeology Officer has reviewed this project and has concluded that it will not impact archaeological resources.

#### Public Participation:

This project has been managed by the City of Burlington since 2003. Numerous public meetings have been held since that time, including several attended by the VTrans Historic Preservation

Officer. The alternative being advanced for the Champlain Parkway was ultimately selected by the City as the preferred alternative based on extensive consultation and public input. It is also the alternative with the least amount of impact to historic properties as determined through consultation with the VTrans Historic Preservation Officer.

#### Analysis:

As stated in the project description, this project has been under development since the mid-1970's. Since that time several alternatives have been advanced and ultimately rejected for a variety of reasons. One of the evaluations was germane to historic preservation, being the choice between the 1979 FSEIS alternative and the alternative being advanced for review in this document. The difference between the two (Attachments 4 and 5) is that the former bisects the Pine Street Historic District with a new two lane highway resulting in a Section 106 determination of Adverse Effect, and the latter which upgrades Pine Street resulting in a Section 106 determination of No Adverse Effect.

While Section 106 does not require the least harm alternative to be selected, Section 4(f) of the Department of Transportation Act 1966 does. Section 4(f) requires the selection of an avoidance alternative (avoids adverse effects) where it can be demonstrated that the avoidance alternative meets the project purpose and need. The FHWA, VTrans project team, and the VTrans HPO agreed that the preferred alternative (upgrading Pine Street) does meet the project purpose and need, and therefore was the only alternative that could obtain a permit under Section 4(f). The Section 4(f) analysis supporting this finding is detailed in Attachment 6, prepared in 2007 by the VTrans Historic Preservation Officer. It is also explained in Attachment 7, a copy of the PowerPoint presentation to the City of Burlington in 2008. Because of the 4(f) analysis, and because the preferred alternative is consistent with the Section 106 intent to minimize effects to historic properties, it is the alternative being advanced to construction.

Considerable discussion took place regarding the merits of upgrading Pine Street which would ultimately see an approximately 15% increase in traffic as a result of the project. As stated, Pine Street bisects two historic districts and the City of Burlington as there was concern expressed concern that the increase in noise and congestion would lead to potential deterioration or abandonment of the historic buildings, and a decline in reinvestment. The City's concerns in this regard, as well as the VTrans response are summarized in attachment 8 which formed the basis of a mediation meeting hosted by the Preservation Trust of Vermont in 2008. The meeting was held to air considerations of all parties with regard to the Pine Street upgrade. Subsequent to the meeting the City of Burlington, responsible for management of this project, elected to advance the Pine Street upgrade alternative. A careful reading of Attachment 8 is required to understand the detailed effects of upgrading Pine Street, and why the upgrade will not adversely affect historic properties.

#### Above Ground Historic Resource Stipulations:

1. Final project plans and any subsequent changes thereto will be subject to review and written approval by the VTrans Historic Preservation Officer before work begins.

#### Section 4(f) de minimis finding

By copy of this document, and as required by Section 4(f) regulations, VTrans hereby informs the State Historic Preservation Officer that based on the finding of No Adverse Effect detailed in

this letter, we will be recommending to FHWA a Section 4(f) de minimis impact finding for this project wherever minor amounts of property are to be acquired as needed for construction.



5/18/11

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Archaeology Officer

Date



5/18/11

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Historic Preservation Officer

Date

Attachments:

1. Project Layout Sheet
2. Historic Resource Review (Liz Pritchett)
3. Summary of above-ground historic property identification
4. Plans – Preferred alternative
5. Plans - 1979 Alternative that bisected Pine Street Historic District
6. Section 4(f) Analysis
7. Project History and Section 4(f) Analysis and Support for Section 106 determination
8. Discussion of Points/Counterpoints for Upgrading Pine Street.



**HISTORIC RESOURCE REVIEW**

*Vermont Agency of Transportation  
Southern Connector/ Champlain Parkway Project  
MEGC-M5000(1)  
Chittenden County  
Burlington, Vermont*



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Cover Photograph: Pine Street Widening Project from Maple Street to Howard Street  
PWA Project No. 2232, Burlington, Vermont, June 13, 1935.  
Courtesy Special Collections, UVM

## I IDENTIFICATION AND EVALUATION OF HISTORIC RESOURCES

### A. SURVEY REPORT

#### PROJECT INTRODUCTION

The Southern Connector/ Champlain Parkway Project, in Burlington, Vermont, MEGC-M5000(1), involves construction of approximately 2.5 miles of highway commencing at the interchange of I-189 with Shelburne Road (US Route 7), and extending westerly and northerly to the intersection of Battery and Main Streets in the Burlington Central Business District. A southerly portion of the project has been constructed. In part of the project area a hazardous waste Superfund Site was identified, referred to as the Pine Street Barge Canal. An interim solution to transversing this site is to circumvent the site along a 1.2 mile roadway, referred to as the C-6 Alignment. Approximately .3 miles would be on new location with about .9 miles constructed within the existing right-of-way. Five alternatives have been proposed for the C-6 Alignment, as well as the No-Build Alternative.

This Historic Resources Review report evaluates the historic and architectural significance of the Pine Street corridor through which the C-6 Alignment has been proposed, including properties bordering Pine Street, South Battery Street and South Champlain Street, lying southerly of Maple Street, easterly of Lake Champlain, and northerly of Lakeside Avenue. The Battery Street Historic District, listed on the National Register of Historic Places (NR) is within the project area; the Lakeside Historic District, also listed on the NR, abuts the project area to the southwest. Two potential industrial historic districts, the Pine Street Historic District, and the Queen City Cotton Mill Historic District, are within the project area, and both appear eligible for nomination to the National Register.

Evaluation of the historic significance of this industrial area is required in order to assist the Federal Highway Administration in complying with the National Environmental Policy Act of 1970, Section 4(f) of the Transportation Act of 1966, Section 106 of the National Historic Preservation Act of 1966 and its amendments, and the regulations adopted to implement these laws. Copies of the report have been distributed to the Kate Quinn, Environment and Right-of-Way Program Manager, Federal Highways Administration, P.O. Box 568, Montpelier, Vermont 05601; the Vermont Division for Historic Preservation, 135 State Street, Drawer 33, Montpelier, Vermont 05633; and Earth Tech, Inc., Three Executive Park Drive, Bedford, New Hampshire 03110.

## REPORT OBJECTIVES

- 1) To determine the boundaries of the two potential historic districts, with completed inventory forms for all above-ground historic resources within the proposed districts.
- 2) To prepare a report of Determination of Effect, with suggestions for Mitigation of Adverse Effects.

## PERSONNEL

All work was performed by Principal Investigator, Liz Pritchett. Ms. Pritchett, an architectural historian with over ten years of experience in the field of historic resource review, holds a Master's degree in Historic Preservation from the University of Vermont. Ms. Pritchett meets 36 CFR standards set for review and documentation of historic resources established by the National Park Service. Her firm, Liz Pritchett Associates, is a DBE firm, registered in the states of Vermont and New Hampshire.

## METHOD

Tasks for this project included investigation and documentation of all historic (above ground) resources in the project area. Site visits to the project area were made from December 8, 1995 through January, 29 1996, and field photographs of the historic resources were taken during this span of time. Literature review was conducted of files, maps and photographs at the Assessor's Office, City of Burlington; Special Collations, Bailey-Howe Library, University of Vermont; Vermont Division for Historic Preservation, Montpelier, Vermont; and the Vermont State Library (for Sanborn Insurance Maps), Montpelier, Vermont. Local business owners and employees, and City officials were interviewed.

This report is comprised of the Identification and Evaluation of Historic Resources in the project area with a determination of the resources' eligibility for the National Register, an Assessment of Effects on the resources by the proposed project, and recommendations for Mitigation of Adverse Effects. The determination of National Register Eligibility and Assessment of Effects follow guidelines established in *National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation* published by the National Park Service.

## AREA AND NUMBER OF PROPERTIES SURVEYED

(See Project Area Map) Approximately 137 acres were surveyed in the City of Burlington. The general project area (see Project Introduction, above) was surveyed to identify all existing above ground historic resources. All properties on both sides of the streets within the general project area were surveyed. 48 properties were surveyed (see Inventory). 47 contributing and 23 non-contributing structures and sites were reviewed. Related structures associated with each property, such as sheds and garages were also reviewed.

## SUMMARY OF RESULTS

One National Register District is within the project area; a second NR district is adjacent to the project area. Battery Street Historic District (formerly called the Battery Street-King Street Neighborhood Historic District, renamed by the National Park Service) was listed on the National Register on November 2, 1977. This district embodies Burlington's earliest settlement which evolved from 1790 to the present. The district was amended on June 28, 1984, to primarily include 126 19th and early 20th century residential structures in the area known as the "South End". The Lakeside Historic District was entered on the NR on May 6, 1982. The Lakeside district was constructed, managed and maintained by the Queen City Cotton Company for its employees. Begun in 1894, and originally known as the Lakeside Development, it is the only industrial housing development of its type in Burlington. Historic resources in the project area include industrial, commercial, railroad, residential, and municipal structures.

### Boundary Determination of potential NR districts

#### 1) The Pine Street Historic District

This potential district comprises an area along the Pine Street Corridor that historically was defined by the lumber industry in Burlington from the end of the Civil War to around 1900, when Burlington ranked third

in the nation for lumber manufacturing. After the Civil War, commercial activity shifted somewhat from the busy corner by South Wharf at Maple and So. Battery, to the rail yards, canal basin and lumber yards in the newly emerging corridor along Pine Street, south of Maple to Howard Street. Planing mills, bobbin mills, a venetian blind factory, and a furniture factory were all established along Pine Street during the late 19th century. After the turn of the century, and the demise of the lumber industry, new businesses took over existing lumber yards and mills, and other establishments such as Malted Cereals, Whiting Brush, the Maple Company, and others prospered on the sites that were formerly dominated by the lumber industry. Residential streets opened and housing emerged generally following the patterns of industrial development from north to south along Pine Street. From the 1870s, housing for employees was developed along Pine Place, Marble Avenue, and Howard Street as well as Hayward's Plan, an early development between Marble and Howard.

The boundaries of the Pine Street Historic District are largely defined by the area that prospered after the Civil War to around 1900. The northern boundary is coterminous with the southern boundary of the Battery Street Historic District; the western boundary is Lake Champlain; the southern boundary is coterminous with the southern property lines of the Maltex Partnership and the Canal Basin, and the properties along the south side of Howard Street to the intersection with Hayward Street; the eastern boundary is defined by the properties that front the east side of Pine Street as far south as Howard Street, extending to the east along both sides of Kilburn Street, Pine Place, and Marble Avenue to St. Paul Street; Hayward Street between Marble and Howard is also included in the district.

## 2) Queen City Cotton Mill Historic District

As developers continued to be lured by the open land and new opportunities farther south along Pine Street, Lakeside Avenue opened around the time the Queen City Cotton Mill was built in 1894. The Queen City Mill/Martin Marietta Corporation Industrial Complex and two related properties, the St. Johnsbury Trucking Facility (c. 1940), and the concrete bridge built by the Vermont Railroad in 1909, crossing Lakeside Avenue, are eligible as contributing structures to the Queen City Cotton Mill Historic District. These three resources date from the end of the 19th to the mid-20th century, when Lakeside Avenue was an active industrial center, focused around the Queen City Mill.

The boundaries of the Queen City Cotton Mill Historic District extend to the northeast from the northeastern corner of the Lakeside Historic District. The Queen City Cotton Mill district is bounded on the west by the right-of-way for Vermont Railways, Inc.; on the north by the northern property lines of Martin Marietta and City Public Works; on the east by the eastern property line of Martin Marietta and the west side of Pine Street; and on the south by the north side of Lakeside Avenue.

Two remaining historic resources in the project area are located south of Howard Street. These resources, the Electrical Substation, and South Park, are significant to the history of the Pine Street area, but are separated from the Pine Street district by intrusions to the north, do not appear to have strong associations with Lakeside Avenue, and do not appear to embody significant characteristics so that they could stand alone as individual sites eligible for listing on the National Register. These two sites are eligible for listing on the State Register, and could possibly be eligible as contributing structures in a National Register neighborhood historic district extending along Locust Street to the housing developments to the east that saw rapid growth in the early to mid-20th century, after the trolley made its way this far south along Pine Street.

The area where the Mobile Wye is being proposed, south of Lakeside Avenue, was briefly reviewed although it is outside of the project area for this phase of review. Within this general study area between Pine Street and the Lakeside Historic District, are the parking lot for Martin Marietta, a large field to the south of the parking lot, various commercial buildings along Pine Street of mostly mid- to late- 20th century construction, the Champlain School (1909) and one historic house, and along Flynn, various historic and non-historic structures.

The historic resources in the project area represent a number of the Historic Contexts in the Vermont Historic Preservation Plan developed by the Vermont Division for Historic Preservation. These contexts are: Architectural Styles, Architects and Builders, Building Technology, Physical Patterns of Communities, Railroads, Water Transportation and Commerce, Automotive Travel, Logging and Lumber Production, Textile Industries, Manufacture of Building Materials, Public and Private Utilities, and Commercial Development in Urban Areas.

#### OPPORTUNITIES FOR FURTHER WORK

Further research may reveal important information concerning the significance of the historic resources in the project area, and the eligibility of these resources for listing on the National Register. After a final determination of eligibility of the two potential historic districts for listing on the National Register of Historic Places, the forms should be completed for nomination of the resources to the NR. Throughout the design phases of the Southern Connector/ Champlain Parkway Project, roadway designs will need to be reviewed for impacts to historic resources, with a letter report(s) of the assessment(s) sent to the Vermont Division for Historic Preservation for their review.

#### BIBLIOGRAPHY

##### MAPS

1869 *Atlas of Chittenden County Vermont*, Beers, F.A., New York, New York.

1877 *Birds Eye View of Burlington and Winooski, Vermont*, J. J. Stoner, Madison, Wisconsin.

1890 *Map of the City of Burlington, Vermont*. G.M. Hopkins, C.E., 320 Walnut Street, Philadelphia, Pennsylvania.

1885, 1889, 1894, 1900, 1906, 1912, 1919, 1926, 1926/corrected 1938, 1942, 1942/corrected 1951, *Burlington, Vermont, Chittenden County*, Sunburn Insurance Maps, Sunburn-Perris Co., Ltd., 117 & 119 Broadway, New York.

1948 (corrected in 1987) *USGS Map of Burlington, Vermont*.

1995, July (Figure 3-8) *Draft Supplemental Environmental Impact Statement, Burlington, Vermont MEGC-M5000 (1)*, U.S. Department of Transportation, and Vermont Agency of Transportation.

##### WRITTEN DOCUMENTATION

Burlington City Assessor's Files, City Hall, Burlington, Vermont.

*Draft Supplemental Environmental Impact Statement, Burlington, Vermont MEGC-M5000 (1)*. U.S. Department of Transportation, and Vermont Agency of Transportation, July, 1995.

Fay, Lawrence. *The Burlington Boat Basin*. UVM Historic Preservation graduate program, student paper. Special Collections, Bailey Howe Library, Burlington, Vermont, 1980.

Blow, David, J. *Historic Guide to Burlington Neighborhoods*. Chittenden County Historical Society, Burlington, Vermont, 1991

National Register files, *Battery Street Historic District*, and *Lakeside Historic District*. Vermont Division for Historic Preservation, Montpelier, Vermont.

Vermont State Register files, *Burlington Historic Sites and Structures Survey*. Vermont Division for

Battery Street Historic District; the new housing complex is non-contributing due to age. Photographs 24,27

4) 75 Maple St., Arbuckle Building, industrial building/commercial building, 1886  
NR # 104. Large, vernacular style, brick, 4-story, commercial building with granite trim, distinctive segmental arch 2/2 windows. Built for Thomas Arbuckle & Co., wholesale tobacconists and confectioners. Used by National Paper Tube and Box Co. from 1915 to 1945.

Eligibility for the National Register: Has retained its integrity as a contributing structure in the Battery Street Historic District.

5) 81 Maple St., Triarch Inc. (Freeman, French, Freeman), house/business, c. 1850.

NR # 103. Distinctive, well-preserved and well-maintained, Greek Revival style, gable front, 2 1/2-story, sidehall plan; wood frame and brick veneer structure.

Eligibility for the National Register: Has retained its integrity as a contributing structure in the Battery Street Historic District.

6) 89 Maple St., Hunt, A. (owner), house, c. 1905

NR # 102. Queen Anne, 2 1/2-story, gable front, wood frame house with a 2-story front porch, clapboard siding.

Eligibility for the National Register: Has retained its integrity as a contributing structure in the Battery Street Historic District.

7) 93 Maple St., Hunt, A. (owner), house, c. 1880

NR # 101. 1 1/2-story, gable roof, wood frame Classic Cottage with clapboard siding.

Eligibility for the National Register: Has retained its integrity as a contributing structure in the Battery Street Historic District.

8) 103 Maple St., Robin DM Enterprises, Ltd., house, c. 1885

NR #100. Vernacular 2 1/2-story, wood frame, gable roof house.

Eligibility for the National Register: Has retained its integrity as a contributing structure in the Battery Street Historic District.

9) 109 Maple St., Barrett Trucking Co. (owner), house, c. 1925

NR #99. 2-story, wood frame, hip roof structure with store on first floor, replacement siding and windows have compromised integrity, but massing appears intact.

Eligibility for the National Register: Has retained its integrity as a contributing structure in the Battery Street Historic District.

10) 1 Maple St., Elias Lyman Coal Co./Perkins Pier (City Parks Dept.), industrial site/ parking lot

Recent, small building to serve parking facility. No historic structures exist in this parking area which since the mid-19th century until the mid-20th century was the site of a coal yard. For many decades known as the Elias Lyman Coal Yard.

Eligibility for the National Register: No historic structures remain. Non-contributing.

11) LaValley St., City Wastewater Plant, c. 1950s/ c.1990

Brick wastewater facility. Structures appear to be of recent construction. The shoreline in this area was filled in as early as the 1850s to make room for the railroad. By the 1920s a city asphalt plant was located here.

Eligibility for the National Register: Non-contributing due to age. Photographs 13,18

12) LaValley St., Rutland Railroad/ State of Vermont & Vermont Railway, Inc., roundhouse, 1916

Vernacular style, 2-story, brick roundhouse with 5-bay entrance facade topped by a stepped roof parapet, facing waterfront; recessed window bays surrounded by brick piers; concave south facade with seven engine bays faces

tracks. Assorted windows in original opening, some are boarded over. Replaces a former roundhouse (located to the east) that burned. This land was filled in as early as the 1850s by Timothy Follet to use for a terminal and freight yard for his Rutland Railroad.

A. Pumphouse and Boiler Room/ Office, c. 1920

Small, vernacular style, 1-story, gable roof, brick structure with segmental arch windows.

B. Turntable, c. 1940

90' diameter steel turntable with concrete footings in working condition; used by the Vermont Railways, Inc.

C. Drawbridge, 1919

This metal drawbridge is the third drawbridge for rail crossing at the entrance to the Barge Canal Boat Basin. The first draw bridge was built in 1868 by Lawrence Barnes who was responsible for the excavation of the basin and canal construction. A new pedestrian bridge, for users of the Burlington Bike Path, parallels the west side of the drawbridge.

D. Rail siding/tracks, 20th century

Much of the Siding/ trackage in the rail yard appears to be in its general historic location in relation to the historic roundhouse and turntable.

E. Vermont Railroad Headquarters Building, c. 1988

Recently constructed 1 1/2-story, gable roof building with clapboard siding, extended eaves with bracket supports, stylistically resembles historic railroad depots. Non-contributing due to age.

Eligibility for the National Register: All railroad related structures (except for the new headquarters building), roundhouse, pumphouse, turntable, siding, and drawbridge are significant for their associations with the history of the railroad in Burlington and the industrial development of the Pine Street area; they embody significant features typical of their architectural type and function, and meet Criteria A. and C. for listing as contributing structures in the Pine Street Historic District. The Headquarters building is non-contributing due to age. Photographs 12,14-19

13) Battery St., Vermont Railway, Inc., salt shed, c. 1970

Large, rectangular industrial shed. Non-contributing due to age.

A. Storage building, c. 1940/ c. 1965

Long, narrow industrial building with concrete foundation, metal clad siding; rebuilt c. 1965. The Sanborn maps from 1900 to 1951 show a similarly sized freight house for the Rutland Railroad at this location. No distinctive features remain however to indicate that this is an historic structure.

Eligibility for the National Register: The Salt Shed and Storage building are non-contributing due to age and alterations.

14) 216 Battery St., Atkinson, A. (owner), commercial structure, c. 1915/ c.1985

Vernacular style, 2-story, nearly square structure, with new hipped roof and extended eaves, replacement metal siding on the north facade, clapboard siding on west (front) facade, altered fenestration with assorted replacement 1/1 windows, new concrete foundation.

Eligibility for the National Register: Although this structure appears to be historic, and is probably the 2-story iron clad structure listed on Sanborn maps from 1919 to 1951 (1919, A.R.Pringle Wholesale Grocers; 1942/51, furniture warehouse); of a similar shape and massing, extensive recent alterations to the structure have resulted in loss of integrity. Non-contributing due to alterations. Photographs 12, 19, 20

15) 237- 241 So. Champlain St., Champlain Valley Fruit Co./Desautels, R. (owner), commercial building, c. 1919/ c. 1960s

Listed on the State Register. Long, rectangular 2-story, metal clad main block listed on the SR as an Art Deco building, with a Moderne style entrance. Replacement metal siding has obscured some original features.

According to the Sanborn Maps, a large rectangular structure was constructed around 1919 replacing worker's housing along this side of the street. The structure increased in size over the years into the 1950s and 60s, replacing adjacent housing, and by the 1990s, a hyphen had been constructed to connect the structure to the historic c. 1925 garage with shallow gable roof parapet to the north. According to Sanborn maps the property has served the wholesale food business since around 1919 when it was owned by Champlain Valley Fruit Co.

Eligibility for the National Register: Although the southern end is non-historic, the overall massing appears

generally intact, and the building is eligible under Criteria A. and C. for listing in the Pine Street Historic District. Photographs 21,22

16) 266 So. Champlain St., Nabisco (National Biscuit Company), Murphy, K. (owner), factory, 1922  
Listed on the State Register. Vernacular style, 2-story, brick commercial building with entrance facing So. Champlain Street (west), contemporaneous 1-story, flat roof ell with similar detailing extends to the south. Small projection on front with address in large numbers extends toward the road. Both main block and ell have a stepped roof parapet on the front facade, paired 1/1 double hung windows. Nabisco was established in Burlington in 1898, at the time making bread only. Around the end of the 19th century, a planing mill was located at this site. Around 1900 E.F. Moore operated a business for the manufacture of concrete building blocks here, possibly established for the construction of the Bobbin Mill directly north, built in 1905.

Eligibility for the National Register: This structure is a good example of an early 20th century commercial structure, its historic associations with commercial activity on S. Champlain Street, and its relatively intact massing and detailing designate the building as a contributing structure in the potential Pine Street Historic District, under Criteria A. and C. Photographs 22, 23, 42

17) 214 Pine St., Wagner, J. (owner), house, c. 1925

Vernacular style, 2-story, gable roof, wood frame, house with 2-bay gable end facade facing street, main entrance appears gone with entry now only through rear ell, replacement synthetic siding and replacement 1/1 windows. Recent exterior stairway on north facade for second story entry. This house first appears on the 1926 Sanborn map when the corner parcel at Pine and Maple Street, vacant for many years, was subdivided for this property and 109 Maple Street. The house is listed as 216 Pine Street on the Sanborn Maps.

Eligibility for the National Register: Although this house has historic associations with Pine Street, extensive alterations have resulted in loss of integrity. Non-contributing due to alterations. Photographs 25

18) 218 Pine St., Beloit, R. (owner), house, c. 1900

Vernacular Italianate, 1 1/2-story, gable front, wood frame, house, with a replacement 1-story front porch, sidehall entrance, clapboard siding, sheet metal roofing. Significant Italianate features include paired sawn cornice brackets, and hood moldings over several round headed windows. This house first appears on the Sanborn Map of 1900. It is uncertain if this house replaced in 1926, a different 1 1/2-story structure built around 1900.

Eligibility for the National Register: Because of its historic associations with Pine Street, and its relatively intact appearance as a good example of residential housing, the building appears eligible for listing on the NR as a contributing structure in the Pine Street Historic District under Criteria A. and C. Photographs 25

19) 220 Pine St., Garrecht, P. (owner), house, c. 1890

Listed on the State Register. Vernacular style, 2 1/2-story, gable front, 3 x 3 bay side hall plan house with a left bay entrance, cornice molding over front entrance, clapboard siding, slate roofing, 2-story front porch, rear wing, 2/2 windows. Italianate front door with paired, round arched glass panels. The house first appears on the 1890 Hopkins Map, and 2-story front porch was added around 1925 according to the 1926 Sanborn Map. The State survey states that the building was workers' housing and at one time a teamster lived here.

Eligibility for the National Register: Because of its historic associations with Pine Street, and its relatively intact appearance as a good example of residential housing, the building appears eligible for listing on the NR as a contributing structure in the Pine Street Historic District under Criteria A. and C. Photographs 25

20) 219-221 Pine St., Burlington Community Land Trust, duplex/ apartments, c. 1900

Listed on the State Register. Vernacular Colonial Revival/ Italianate style, 2-story, gable on hip roof, wood frame, 5 x 3 bay former duplex with centrally placed, historic, slate sided hip roof dormers, distinctive cornice brackets along the eaves. Central double entrance and 1/1 windows appear to be replacements. A replacement 2-story porch spans the rear facade. According to the State survey, Joseph Barbo, an industrial laborer, was the first known resident. The structure first appears on the 1900 Sanborn map as a duplex. By 1919 an iron clad machine shop (now gone) was built on the property, but in 1926 the shop becomes identified as a separate parcel at 223 Pine Street.

Eligibility for the National Register: Because of its historic associations with Pine Street, and its relatively intact appearance as a good example of a duplex dating from around 1900, the building appears eligible for listing on the NR as a contributing structure in the Pine Street Historic District under Criteria A. and C. Photographs 26

21) 224-226 Pine St., Juhring, A. (owner), house/business, c. 1865 /c. 1950

Listed on the State Register as non-contributing due to age.

Vernacular, 2-story, wood frame, 3 x 4 bay structure with a shallow hip roof, a central entrance, and aluminum siding. According to the Beers' (1869) map, this property is the site of one of the three first houses on Pine Street south of Maple (224-6, 230, 234 Pine), all of which lined the east side of the street during the years when Pine Street was on the brink of its industrial growth and expansion. This structure is possibly the same building that first is shown, with a generally square footprint on the Beers' map in 1869, W.G. Shaw, owner. On the Stoner 1877 map an eavesfront gable roof building is listed at this location. From the 1890s to the 1950s the building is shown as a duplex (J. W. Hayes, owner in 1890), and the Sanborn maps until 1951 show the structure as nearly square, with a 1 1/2-story main block and a 1-story appendage spanning the rear facade. From this research it is possible that the house dates to the 1860s, with recent alterations including raising the rear appendage and the roof of the main block to the 2-story hip configuration present today.

Eligibility for the National Register: Despite its possible historic associations with the early development with this section of Pine Street, recent alterations to the structure have compromised its architectural integrity; thus the building is designated as non-contributing in the Pine Street Historic District due to alterations. Photographs 25

22) 230 Pine St., Gero, M. (owner), house, c. 1865

Listed on the State Register.

Vernacular 2 1/2-story, wood frame, 3 x 3 bay, gable front, sidehall plan house with replacement aluminum siding, a replacement front porch and double main entrance door, 2/2 windows, steep slate shingled roof has a distinctive band of imbricated shingles. Rear wing. A 2-story front porch was added in 1926 (Sanborn Map). According to the Beers' (1869) map, this property is the site of one of the first three houses on Pine Street south of Maple (224-6, 230, 234 Pine), all of which lined the east side of the street during the years when Pine Street was on the brink of its industrial growth and expansion. According to the State Survey, in 1869 the house was owned by Hopkins A. Reed, repairman for the Central Vermont Railroad.

Eligibility for the National Register: Because of its historic associations with Pine Street, and its relatively intact appearance as a good example of residential housing, the building appears eligible for listing on the NR as a contributing structure in the Pine Street Historic District under Criteria A. and C. Photographs 25

23) 234 Pine St., Gero, R. (owner), house, c. 1860

Listed on the State Register.

Vernacular late Federal style 1 1/2-story, gable front, 3 x 3 bay house of brick construction set back from the street. The only brick dwelling on Pine Street in the project area. Features include the central entrance, stone foundation, south side wing with false front parapet, 2/2 windows, splayed lintels over windows and front entrance. The State Register notes that the building resembles similar small brick houses nearby on St. Paul Street. Mary McCarty lived here in the 1860s (Beers', 1869); J. McCarty in the 1890s (Hopkins', 1890). Maps from 1869 show another dwelling (#238 Pine) on the southern half of this lot, but by the 1900 Sanborn map only the foundation remained.

Eligibility for the National Register: Because of its historic associations with Pine Street, and its relatively intact appearance as a good example of mid-19th century residential housing, the building appears eligible for listing on the NR as a contributing structure in the Pine Street Historic District under Criteria A. and C.

24) 240 Pine St., Santo, C. (owner), house/duplex, c. 1900

Listed on the State Register

Vernacular, 1 1/2-story, gable roof, 3 x 3 bay, nearly square, house with 2/2 windows, and a contemporaneous wrap around porch on the front and south facades. According to early maps, this house appears to replace a former dwelling that dated from around 1890, C.R. Hayward, owner.

Eligibility for the National Register: Because of its historic associations with Pine Street, and its relatively intact appearance as a good example of residential housing, the building appears eligible for listing on the NR as a

contributing structure in the Pine Street Historic District under Criteria A. and C. Photographs 27

25) 257-277 Pine St., Bullocks Standard Steam Laundry/ American Health Care, Murphy, T. (owner), commercial, c. 1925

Vernacular style, 1-story, flat roof, industrial building has a brick front section and c. 1920s rear rock faced pressed concrete portion, an enriched brick cornice along the front, replacement windows in original openings. W. Goodell & Company's Marble and Granite Works was located here from the 1880s to around 1920, when Bullock's Standard Steam Laundry was established here. The rear rock-faced section appears to have been added to the granite business streetfront building for the 1920s laundry facility. By the 1950s the firm was operating under the name of Huntley's Inc. Steam Laundry. The structure appears generally unchanged since the 1920s.

A. Granite shed/ commercial offices, c. 1880/ c. 1990

Listed on the State Register. Long, rectangular, 1 1/2-story, gable roof structure, with a new concrete foundation, new clapboard siding and modern windows in what appear to be new openings. A fire in 1988 appears to have virtually destroyed all historic fabric (no distinctive features remain). The building is historically associated with Goodell's granite works, but by 1906 it was the site of E.F. Moore's Concrete Block business; in 1912 it was a fruit store house and by the 1920s it became part of the Nabisco business directly west on So. Champlain St. (site # 16). Although the footprint of the building appears to be the original size, the roof appears to have been somewhat raised and the slope altered, and the building has lost its original fenestration pattern and windows so that its historic function is no longer evident. Should be removed from the State Register, non-contributing due to alterations.

Eligibility for the National Register: Both the intact steam laundry building and the large former granite/ commercial shed to the west have served various historic functions related to the Pine Street patterns of rapid industrial growth during the late 19th century, and later commercial activity in the 20th century. The shed is non-contributing due to alterations; the former laundry meets Criteria A. and C. for listing as a contributing structure in the Pine Street Historic District. Photographs 28,29

26) 266 Pine St., M. & F.F. Dorn Bottling Works/ Pine Square, George, P. (owner), commercial, 1925/ c. 1990  
Listed on the State Register.

Vernacular 2-story, commercial building with new front entrance, assorted historic and modern windows. The building was originally a bottling plant built by Dorn Bottling Works, which by 1942 had merged with Coca Cola Co. of Burlington. According to the State Survey, the long rectangular main block was built in 1925. (A smaller structure first appears on the 1919 Sanborn map as a liquors and bottling works and may be incorporated into the 1925 main block.) The rear rock-faced garages were added in 1938. The brick ell to the north was built in 1940. Other small appendages date to around 1970.

Eligibility for the National Register: The Bottling Works is significant historically as one of several businesses established around 1920 in the project area dealing with wholesale foods and beverages. It is significant architecturally as a generally intact commercial facility today serving a number of tenants. The Bottling Works is eligible for listing on the NR as a contributing structure in the Pine Street Historic District under Criteria A. and C. Photographs 30

27) 270 Pine St., Burlington Venetian Blind Co. / Conant Custom Brass, Inc., c. 1885/ c. 1985

Vernacular commercial structure comprised of two 2-story, flat roof blocks, a 2-story rear ell which appears historic with a recent 1-story addition extending to the east. Sanborn maps indicate that this business began in the 1890s with a complex of buildings in this corner lot. The main woodworking structure, extending nearly the length of the lot parallel to the east side of Pine Street, appears to have existed until recently. The northerly 2-story cast concrete block section appears to have been built around 1894, and the wood frame section, around 1926; but, oddly enough their locations are reversed on the Sanborn maps. Fenestration patterns, window openings and many original double hung windows appear intact.

Eligibility for the National Register: Although the history of the structures on this lot may require further research, the complex has clearly contributed to the significance of the Pine Street area, as the Venetian Blind factory was in existence until the mid-20th century as one of the longest continuously running operations in the project area. The main woodworking building has disappeared from the site but the existing structures continue to embody the

simple massing and vernacular characteristics of commercial buildings. Today Conant Custom Brass, manufacturers and distributors of lighting fixtures, is continuing the industrial/commercial use of the structures. The site meets Criteria A. and C. for listing as a contributing property in the Pine Street Historic District. Photographs 30

28) 315 Pine St., Haigh Lumber Co.(Gregory Supply), business, c. 1880/ c. 1980  
Listed on the State Register.

Fire c. 1980 seriously damaged the main building and destroyed the historic lumber shed to the rear (east). The historic lumber shed was not rebuilt; the main building appears to be all new construction. The State Register documentation states that the burned structures were significant buildings from the only surviving wood working planing mill dating from before 1900. In the 1880s the Barnes and Holt Spool and Bobbin Factory was located on this site. By 1894 D.W. Robinson used the site for his planing mill (after the turn-of-the-century known as Robinson -Edwards Lumber Co.) and this use continued until the 1920s. By the 1930s T.A. Haigh Lumber Co. was located here. Today rail siding passes through this historic rail corridor with the main building and Shed A , to the north of the siding, and Shed B to the south.

A. Lumber shed, c. 1940/ c. 1970

Relatively small, 1-story, gable roof open shed with metal and dimension lumber frame, sheet metal roofing and sheet metal siding enclosing the east end. In the general location of a small historic shed, the integrity of this building has been compromised so that it is designated as non-contributing due to alterations.

B. Lumber shed, c. 1980

1-story, gable roof, storage shed with steel I-beam and dimension lumber frame, sheet metal roofing and siding. Historically the site of a lumber shed, this replacement shed is perpendicular to Pine Street and parallel to the Haigh Lumber southern property line.

Eligibility for the National Register: The site is significant for its various historic industrial associations with the development of the Pine Street corridor, but the buildings on the site although continuing their historic function as a lumber business, are non-contributing due to age and alterations. Photographs 31, 32, 39, 41

29) 308-310 Pine St., Kilburn and Gates, factory/ commercial, 1869

Listed on the State Register.

Former Kilburn and Gates furniture warehouse adapted to commercial and residential use. Massive, 2-story factory building on a distinctive, raised, red stone foundation, has a shallow gable roof, replacement 9/9 windows, 115' smokestack, post and beam frame with structural brick walls and corbeled cornice obscured by new clapboard siding. The huge iron buttresses along the north facade date from the 1930s. Despite altered exterior cladding and fenestration, and the demolition of part of the east wing, a large portion of the massing remains intact. In 1869, the firm, Kilburn and Gates, manufacturers of cottage furniture, established by Joel and Stephen Gates with Chaney Kilburn, was among the first to purchase land in the basin after the canal was built. The firm first occupied a large portion of the Pioneer Shops and employed 150-200 men. The current building was constructed in 1869 to house a new factory that became at one time the largest furniture fabricating plant in the country. After the Winooski Mill went bankrupt, Gates purchased the company, dissolved the furniture partnership and converted the Pine Street factory for weaving cotton, continuing carding and spinning at the Winooski Mill. Gates named his new business Joel H. Gates and Co, also known as the Burlington Cotton Mills. By 1912 the operation became Chase Mills, closing during the 1930s from the effects of the Depression. In 1936 Lane Press took over the building for its printing operation, installed the iron buttresses and leased some of the space and outbuildings. By 1942 M. M. Farrell and Sons had purchased the outbuildings to the south for their wholesale beverage business. In 1988 Graham Goldsmith, architect, purchased the property for rental space.

Eligibility for the National Register: Although the architectural significance is somewhat compromised, the significant role played by this property in the history of the Pine Street corridor designates the property as an eligible, contributing site in the Pine Street Historic District. Photographs 33, 34, 35

30) 339 Pine St., Burlington Street Department (City Public Works), 1934

Listed on the State Register. Vernacular 1-story brick main block with c. 1970, 1-story ell on the north side of the main block parallel to Pine Street (ell was built after 1951 according to the 1942/1951 Sanborn Map). A series of

attached contemporaneous 1 and 2-story brick ells extend to the west. The long, linear, structure was built to house an office, and equipment and machinery used to maintain the city's streets. The property is the site of former lumber yards and sheds belonging for many decades to the Robinson-Edwards Lumber Co.

A. Salt Shed, c. 1990

1-story, temporary building with plywood siding, metal frame. Non-contributing due to age.

Eligibility for the National Register: The large Street Department building retains its physical integrity, continues to serve its original purpose, and is clearly contributing to the Pine Street Historic District. The new Salt Shed is non-contributing due to age. Photographs 32, 36, 37, 38, 39, 40

31) 332 Pine St., Hulbert Supply Co., Inc., commercial, c. 1955

Metal clad, concrete block commercial building with bowed roof, paired windows. According to historic maps, this building is the first structure ever built on this site, which surprisingly was never developed after Kilburn and Gates built their furniture factory directly north in 1869.

Eligibility for the National Register: Non-contributing due to age. Photographs 35

32) 1-5 Pine Place, Strong, D.(owner), store/ house, c. 1906

Vernacular Queen Anne style, 2 3/4-story, gambrel roof house with a c. 1912, 3-story rear (east) porch, c. 1920 2-story porch on north facade, and gable roof dormers which appear historic. Distinctive canted 2-story bay window on the northwest corner, apparently dating from around 1940, is topped on the third story by a Queen Anne corner porch with turned balustrade and a gabled hood with bracket supports. Replacement siding and windows.

According to the Sanborn maps, this building was first a grocery store built around 1905, shortly after Pine Street opened, most likely to serve the residents living in new housing along the south side of the street. By 1912 the structure housed a glove factory on the first floor with housing above; by 1919 the property functioned solely as apartments. First listed as 420 Pine Street, the address changed to 1 Pine Place by 1926. Unique as the only residential structure along Pine Street between Kilburn St. and Lakeside Drive.

Eligibility for the National Register: Although the historic features have been somewhat obscured by new siding, the massing is clearly intact, and the building continues to serve its primary historic original function. 1 Pine Street is eligible as a contributing property in the Pine Street Historic District. Photographs 43

33) 7 Marble Ave., Welsh Brothers Maple Co., industrial/commercial, 1917

Frank L. Austin, Burlington architect designed this distinctive 2-story, flat roof, brick commercial building with its distinctive industrial metal windows, and parapet roof with date panel on the front facade facing Marble Ave. A series of historic appendages extend from the southeast corner of the main block. The structure was built by Llewellyn and Charles Welsh and Harry Miller when they moved their maple products business from Cherry Street (and prior to that, on Lower Church St.) for the bottling of "Vermont Maid Syrup" a unique blend of pure maple syrup and cane sugar developed by this firm. Under various owners in the 20th century, today the building functions as a modern laundry center.

Eligibility for the National Register: This commercial structure, one of several in the project area designed by noted Burlington architect Frank L. Austin, is also one of the most intact commercial buildings on Pine Street. Meets criteria A. and C. for listing in the Pine Street Historic District. Photographs 44

34) 364 Pine St., E.B. and A.C. Whiting Co./ Howard Space Partnership, industrial/ commercial, 1902

Listed on the State Register. This distinctive building was constructed in 1902 after a fire destroyed the 1891 structure, built for Enoch Bangs and son, Alfred Catlin Whiting when they moved to this site from overcrowded quarters on Cherry and Battery Streets. Originally, the 1902 building was a smaller structure with a rear ell to the northeast; it was enlarged around 1915 to resemble what exists today as a metal and clapboard clad 3-story main block, with a full length 2-story appendage parallel to Pine Street. A number of distinctive characteristics have been retained over the years including the assorted double hung, multi light windows and the third story corner office which dates from around 1940 according to the Sanborn maps (the same time that a three story corner projection was added to the multi-family dwelling at 1 Pine Place). Incorporated in 1874, the Whiting Co. sorted, cleaned, and processed various fibers imported primarily from undeveloped countries for use in the manufacture of brushes. Around 1915 a combing building and several storehouses were built to the north and east along Howard

St. and the factory became, according to the State Register, the largest brush fiber concern in the world. The railroad siding constructed at the site still exists. In 1920 A.C. Whiting sold the business and moved to Florida. By the 1960s plastics had overtaken natural fibers; in 1963 the historic factory was sold and the business moved into a new plant across Howard St.

A. Storehouse, 1919: 1-story, shallow gable roof, brick commercial building to the north of the main building constructed in 4 equal sections to serve as storage space for the business and in later years served as the "patent fiber machine building." Today the structure has been adapted as new commercial space. Despite some alterations to windows, the massing and general fenestration pattern are intact.

B. Combing building/ storage, 1919: large, 1-story, metal clad structure to the northeast of the main building; retained its original purpose until the 1960s.

C. Storehouse, 1919: 1-story, brick, 7-bay shed roof storehouse, with historic, hinged metal doors.

Eligibility for the National Register: Although the integrity of the main brush manufacturing building and the related buildings, A., B., C., have been somewhat compromised with alterations for adapting the structures to new uses, the massing and many distinctive features are generally intact so that the structures still embody characteristics that identify the complex as one of industrial use. The structures, now owned by the Howard Space Partnership, meet Criteria A. and C. for listing as contributing structures in the Pine Street Historic District. Photographs 45, 46, 51

### 35) Pine Street Barge Canal Basin, Unknown Owner, 1868-69

Boat basin and canal system constructed by 40 men under the supervision of Luther Whitney of Port Douglas, New York, on land owned by Lawrence Barnes and Co. to provide additional docking space and lumber piling grounds for the expanding dimension lumber and wood processing businesses in the Pine Street area. Since its construction, ownership of various areas in the basin has changed hands as the lumber storage areas were bought and sold by different firms. Much of the land along the shoreline has historically been used for fuel storage, first lumber, later coal, and now oil. Each parcel of property on the Basin historically had both rail and water rights. Lumber from Canada was delivered by canal boats to the Basin where the lumber was dried and processed. With shipping active only in the months when the lake was not frozen, huge storage piles were accumulated in the Basin so that the lumber companies could continue processing year around. The finished products were delivered by rail or boat throughout the world. In the 1890s lumber imports began to decline. The Dingley Tariff dealt the final blow with imposed tariffs on all lumber imported from Canada. The effects of this tariff drastically reduced the amount of lumber entering Burlington, and the city was never able to recover from this economic downturn. In the early 20th century, the Basin was used as dumping site.

Eligibility for the National Register: Eligible under Criterion A, for its local and national significance as the center of the third largest lumber manufacturing site in the nation during the late 19th century. Photographs 16, 54

### 36) 377 Pine St., Citizens Coal Co./ Citizens Oil Co., Inc., commercial, c.1900/ 1955

Listed on the State Register. This vernacular style, 2-story, shed roof, 7 x 2 bay building has historic 2/2 windows, clapboard and asbestos shingle siding, a pent roof across the front facade above the first floor windows. The south end historically functioned as a weigh scale; wagons and later trucks were driven through the gateway encompassing the southern half of the first floor (according to the State survey, the weigh scale was in the location of the second window bay); the office was in the north end. A second story porch originally spanned the front facade. An addition was built to the north in 1955. Coal pockets and additional sheds were formerly located to the west. In 1899 Citizens Coal Co. purchased the property which was part of the Shepard and Morse Lumber Company during the third quarter of the 19th century.

A. Wagon Shed/ Garage, 1915: 1 1/2-story, gable roof, wood frame, 7 bay garage, with beadboard siding; converted for truck/ auto use by the 1930s.

B. Carriage Barn/ Equipment Shed, c. 1900: 2 1/2-story, gable roof, wood frame carriage barn, with novelty siding, square stable windows and carriage bay on south facade, a hay door in the kneewall above; used for equipment storage by the 1950s.

C. Storage building, c. 1990: 1-story, shallow gable roof, metal clad building. Non-contributing due to age.

Eligibility for the National Register: All three historic structures exist relatively intact from the early 20th century, and embody characteristics of their historic uses in an area associated with coal and later oil distribution. The site

is eligible for listing as a contributing property in the Pine Street Historic District under Criteria A. and C. Photographs 47,48

37) Lumber and Coal yards / Farrell Distributors, commercial, 19th -20th century/ c. 1990  
Very large, 1-story, metal clad, building with remnants of a smaller concrete block structure visible on the rear facade. Non-contributing due to age.

38) 431 Pine St., Maltex Partnership, commercial, 1900  
Listed on the State Register. The lumber firm of Flint and Hall purchased this land (former lumber pilings) from Lawrence Barnes and David Skillings, and around 1870 built a steam planing mill which was leased to Matthews and Hickok for the production of wooden boxes. In 1899 William J. Patten organized the Malted Cereal Co. and a year later the 3-story brick factory was built with a red stone foundation, round headed and segmental arch windows with granite sills. The factory introduced new employee benefits such as hot lunches. A 3-story addition was built in 1934. Known as the Maltex Cereal Co. after 1935. In the late 1960s the property changed ownership, and today the building has various tenants. New 1-story addition on north end.  
Eligibility for the National Register: Eligible as a contributing structure in the Pine Street Industrial Historic District under Criteria A and C. Photographs 49, 50

39) 444 Pine St., Whiting Co., 1963  
Site of new plant when operations moved in 1963. Large complex of buildings, most of which are connected.  
Eligibility for the National Register: Non-contributing due to age. Photographs 52, 53

40) 500 Pine St., Baldwin Refrigerator Company/ Jackson Terrace Apartments, c. 1920/ c. 1985  
Northern section is an adaptive use project, adapting the long, linear brick Baldwin refrigeration Co. factory for apartments; the clapboard sided southern block appears to be new construction. Owned by the Whiting Co. for a period of years.  
Eligibility for the National Register: The property is non-contributing due to alterations of the historic portion, and recent age of the large new block. Photographs 56

41) 501 Pine St., Gatehouse Lot, Vermont Gas Systems, Inc., c. 1960  
Small 1-story, square, concrete block structure.  
Eligibility for the National Register: Non-contributing due to age. Photographs 55

42) 585 Pine St., City Electric Dept, Electrical substation, c. 1925  
1-story, brick, 3 x 2 bay substation with raised concrete foundation, distinctive parapet roof, concrete block infilled window bays.  
A. Shed, c. 1950  
Vernacular, 1-story, gable roof, metal clad building. Non-contributing due to age.  
B. Office Building, c. 1970. Built on site of old gas works; designed by architect, Julian Goodrich.  
Curtain wall construction office building with large metal clad ell to rear (west). Non-contributing due to age.  
Eligibility for the National Register: The substation remains significant for its role in urban electrification. Outside of the boundary of the Pine Street Historic District; not eligible for listing as an Individual structure on the NR, but eligible for the State Register. Photographs 57, 58, 59

43) South Park  
Large historic park, with mature plantings and trees along the Pine Street corridor.  
Eligibility for the National Register: Although the park has contributed to the recreational interests of residents in this part of Burlington for many years, no historic structures exist on the site. The landscape features, although significant, do not meet criteria for listing as an individual property in the NR. Outside of the boundaries of the Pine Street Historic District. Eligible for listing on the State Register. Photographs 58, 60

44) 523 Pine St., St. Johnsbury Trucking Co./ City Public Works, c. 1940/ c. 1955

Motor freight facility dating from the early 1940s. The original brick office building is visible in the area of the south side entrance with its distinctive Art Deco pressed concrete door surround. The first bank of garages, dating from c. 1940, exist today as the northern section of the garage bays. Sometime after 1951 the office was connected to the north end garage, apparently to resemble what exists today.

Eligibility for the National Register: The non-historic portions do not significantly diminish the integrity of this facility which appears to meet criteria A. and C. for listing as a contributing structure in the Queen City Cotton Mill Historic District. Photographs 60, 61

45) 44 Lakeside Ave., Blodgett Supply Co./ , Cloverleaf Properties, Inc., c. 1945/ c. 1980

Brick manufacturing facility with remains of original factory, such as multi-light, metal industrial windows, many later additions. The Blodgett Co., established in 1848, manufactured and distributed commercial ovens.

The 110' adjacent seawall built of interlocking steel piling was constructed in 1947 to prevent erosion.

Eligibility for the National Register: Although the structure just barely meets the 50 year criterion, numerous non-historic additions have resulted in loss of integrity and the building is designated as non-contributing due to alteration. Photographs 62

46) 50 Lakeside Ave., Blodgett Supply Co./ Cloverleaf Properties, Inc., c. 1945/ c. 1980

Brick manufacturing facility with remains of original factory, such as multi-light, metal industrial windows, many later additions. The Blodgett Co., established in 1848, manufactured and distributed commercial ovens.

A. Office building, c. 1985

Brick, 1-story structure flanking the shore. Non-contributing due to age.

Eligibility for the National Register: Although the factory just barely meets the 50 year criterion, numerous non-historic additions have resulted in loss of integrity and the building is designated as non-contributing due to alteration. Small office building, A is non-contributing due to age.

47) 128 Lakeside Ave., Queen City Cotton Mill/ Martin Marietta Corp., factory/ industrial plant, 1894

This is the largest factory in Burlington. The Mill, adjacent to one of the few factory housing developments in the city, as well as other nearby residential areas, employed up to 600 people at its peak. The massive brick plant was built by George Draper and sons of Massachusetts as a model factory to demonstrate the new Northrup automatic loom, designed so that one operator could run several looms. The factory was designed by F.P. Sheldon and built by D. H. Sears. 1899 additions include the fourth story of the mill and the large attached rear ell with distinctive sawtooth roof, which was known as the largest room in Vermont at the time. Operated as a General Electric plant for many years after 1947.

A. Storage/ garage, c. 1900

Brick industrial building is contemporaneous with the mill.

B. Guard house, c. 1950

Small guard house with gable roof, appears to have been altered over the years, and does not date from a historic time period.

Eligibility for the National Register: Generally intact facility and related storage building meet Criteria A. and C. for listing on the NR either as an individual site or as part of the Queen City Cotton Mill Historic District, described in the Survey Report above. The guard house is non-contributing due to age. Photographs 63, 64

48) Railroad Bridge, 1909

Historic bridge with molded concrete abutments built by the Rutland Railroad. Reputed to be haunted at night because of a tragic accident that occurred one night in 1900, when Mary Blair was hit by a train on her way to work from the Lakeside Development.

Eligibility for the National Register: Historic structure associated with the industrial activity along Lakeside Ave. Eligible for listing as a contributing structure in the Queen City Cotton Mill Historic District. Photographs 65

## II DETERMINATION OF EFFECT, AND RECOMMENDATIONS FOR MITIGATION OF EFFECTS

### A. Summary

The location of the C-6 Alignment could have an effect on the Battery Street Historic District, the Pine Street Historic District, the Queen City Cotton Mill Historic District and the Lakeside Historic District. It appears from the research conducted along the C-6 Alignment that the project will have No Adverse Effect on the Battery Street Historic District. The C-6 Alignment from Lakeside Avenue, north on Pine Street to Pine Place, is evaluated as a No Adverse Effect. Along Battery Street Extension within the Pine Street Historic District. Alternatives 3 and 4 of the C-6 Alignment are recommended as having an Adverse Effect, while Alternatives 1, 2, and 5 (of the C-6 Alignment) are recommended as having No Adverse Effect on the Pine Street Historic District.

Alternatives 1, 2 and 5 will not result in the destruction of any historic buildings within the Pine Street Historic District. Alternatives 1, 2 and 5 will result in a No Adverse Effect on the Pine Street Historic District.

Alternative 3 will result in the demolition of part of a resource that is contributing to the Pine Street Historic District. Alternative 4 will result in the demolition of three non-contributing buildings in the historic district, but will alter the historic use and viewshed of the property. Alternatives 3 and 4 will result in an Adverse Effect to the Pine Street Historic District.

### B. Listing and Discussion of Effects

#### Historic Resource Impacts

The C-6 Alignment commences at the terminus of the C-2 Alignment at Lakeside Ave., and proceeds easterly along Lakeside Ave. to Pine Street. It then follows Pine Street to Pine Place, departs Pine Street near the Burlington Street Department property, and continues northwesterly to the intersection of Battery and Maple Streets. It then continues on Battery Street, northerly to Main Street.

The three sections in the C-6 Alignment are:

Lakeside Avenue to Pine Place (southern terminus)

Pine Place to Maple Street (called Battery Street Extension)

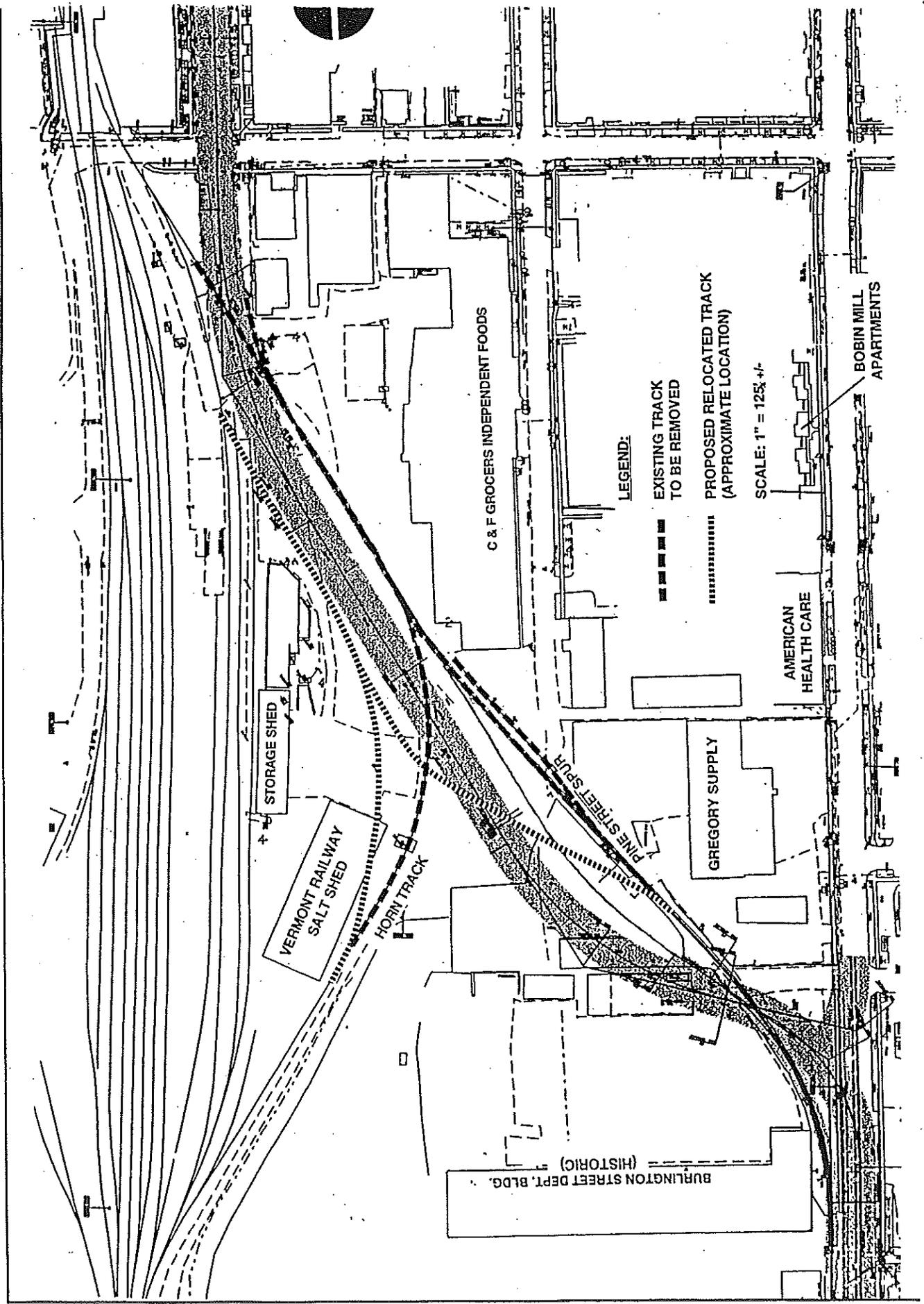
Battery Street south of Maple to the intersection of Main and Battery Streets (northern terminus)

The typical section, existing on Pine Street, is a 66-foot wide right-of-way with two 13-foot travel lanes flanked by shoulders, grass area and sidewalks. The typical proposed section along Pine Street, is a 66-foot right-of-way with two 14-foot travel lanes with a single 11-foot wide center turning lane, curbing, grass area and sidewalks. Widening will occur along the west side of the road due to the number of physical constraints on the east side.

The five alternatives from Pine Place across the rail yard to Battery Street, vary in their location for the roadway and the relocation of the railroad tracks. All are located between the Burlington Street Department building and the American Health Care Building on Pine Street. Presently this land is occupied by a rail spur and the Gregory Supply Company. The rail spur is part of the historic transportation network within the Historic District and represents a historic transportation corridor. The Gregory Supply building and related sheds are not contributing buildings to the Historic District, but the function of the structures as part of an industrial/commercial property continues the historic use of the property within the Historic District.

#### The Battery Street Historic District

The C-6 Alignment will connect to Battery Street, south of Maple Street, and improvements will continue to the intersection of Main and Battery Streets. There is only one alternative for this section along Battery Street, from Maple Street to Main Street. Currently, Battery Street, south of Maple Street ends at the rail yard with no physical definition. When the proposed improvements are in place, it will be a defined street with curbs and pavement through rail yards. The alignment connecting to Battery Street will be constructed at the existing grade, with no change in elevation. The typical cross-section of the roadway will be three lanes, with stop signs at the intersection of Maple and Battery Streets. No historic buildings will be acquired or demolished within the Historic District



Alternative 5

boundaries.

Therefore, this consultant recommends that the project will have No Adverse Effect to the Battery Street Historic District.

#### The Queen City Mill Historic District

The C-6 Alignment has one alternative location from the connection with the C-2 Alignment in the vicinity of Lakeside Avenue, to the site of the Burlington Street Department Building near Pine Place. This alternative appears to be adjacent to the southern boundary, as defined above, of the Queen City Mill Historic District.

The improvements proposed on Lakeside Avenue include widening the lanes, generally within the existing right-of-way, and adding traffic signals, new paving, pavement markings and curbs. The improvements along Lakeside Ave. would be generally within the existing right-of-way, except near the intersection with Pine Street where a small taking from the St. Johnsbury Trucking and Martin Marietta properties is apparently required in the design improvements. All improvements will be at-grade. No buildings will be acquired or demolished along Lakeside Avenue.

#### The Pine Street Historic District.

The C-6 Alignment has one alternative location from the connection with the C-2 Alignment in the vicinity of Lakeside Avenue, to the site of the Burlington Street Department Building near Pine Place. This alternative is adjacent to the eastern boundary, as defined above, of the Queen City Mill Historic District, and within the Pine Street Historic District.

The improvements proposed on Pine Street include widening the lanes, generally within the existing right-of-way, and adding traffic signals, new paving, pavement markings and curbs. All improvements will be at-grade. No buildings will be acquired or demolished along Pine Street.

According to this consultant, the proposed improvements along Pine Street, from Lakeside Avenue to Pine Place, appear to result in a No Adverse Effect.

#### Battery Street Extension

Alternative 1 would depart from Pine Street, just north of the Pine Place intersection, and proceed northwesterly, over City of Burlington Street Department property. Alternative 1 would not directly impact the Burlington Street Department building and would minimize impacts to Gregory Supply, a major business in this area.

Alternative 2 would depart from Pine Street at approximately the same location as Alternative 1, extend from Pine Street through a corner of the Gregory Supply Shed (28B) and remain close to the west side of the Desautels (15) building, before connecting to Battery Street. This alternative is intended to minimize impacts to Vermont Railway operations, but will adversely impact standing structures.

Alternative 3, identified by Vermont Railway, would depart from the Pine Street right-of-way just north of the Pine Place intersection and would locate the connector essentially along the existing Pine Street Rail Spur. This alternative would impact a substantial portion of the Gregory Supply site.

Alternative 4 would depart from Pine Street at the intersection with Kilburn Street, and proceed northwesterly from Pine Street through the Gregory Supply property, and remain close to the Desautels Building, before connecting to Battery Street. This alternative would require acquisition of Gregory Supply but would not impact the Street Department property.

Alternative 5 would depart from Pine Street, just north of Pine Place proceed northwesterly and impact a corner of the Gregory Supply Shed (28B) before transitioning to Battery Street.

Each of the five alternatives will cause changes within the landscape in this part of the Historic District. The changes appear to have an effect. The effect will be different for each alternative.

#### Alternatives 3 and 4

Relocation of the rail spur for Alternative 3 will result in the demolition of the frame addition to the Burlington Street Department. Therefore it will cause the destruction of part of a contributing building in the Historic District, and will result in a visual impact on the historic District. The addition of a roadway will be consistent with the transportation use within this portion of the Historic District. There will be no substantive impacts to noise or air quality with this alternative.

Alternative 4 will result in an alternation of the street pattern in the vicinity of the historic buildings east and west of Pine Street, from Pine Place to Maple Street. This alternation includes the demolition of the Gregory Supply buildings and the relocation of the business. However, no historic buildings within the Historic District will be destroyed. The relocation of the rail spur will be within the existing rail transportation corridor. The location of the roadway across the Gregory Supply property will not be consistent with its historic use and the environment surrounding the historic buildings immediately adjacent to the property will be altered. These properties would not be isolated as a result of the location of Alternative 4, but a gap between these buildings in the Historic District will be created. Alternative 4 will alter the viewshed within the Historic District, as it requires place a roadway across an industrial/ commercial property never used as a transportation corridor. The viewshed of the historic buildings surrounding this property will be altered. There will be no substantive impacts to noise or air quality with this alternative.

In the opinion of this consultant, Alternatives 3 and 4 will result in an Adverse Effect to the Pine Street Historic District.

Alternatives 1, 2, and 5 will not result in the destruction of any historic buildings within the Historic District. Alternative 1 will alter the use of part of the property within the Burlington Street Department building parcel. The parking lot, loading area, and a temporary salt shed will be effected. The location of Alternatives 2 and 5 are the closest to the existing transportation corridor, therefore having little impact on the environment within the Historic District and the surrounding historic buildings. Alternative 1 results in the roadway placement to the south and west of the transportation corridor, but does not substantially alter the environment surrounding the historic buildings in the Historic District. Alternative 1 places the roadway through the Street Department parcel for the longest distance, resulting in an alteration of the visual relationship of this transportation corridor to the rest of the historic buildings in the Historic District.

Alternatives 1, 2, and 5 appear to result in No Adverse Effect on the Pine Street Historic District.

#### **MITIGATION OF EFFECTS**

It appears that selection of Alternatives 1, 2, or 5 would avoid Adverse Effects on the contributing buildings in the Pine Street Historic District as described above. Alternatives 2 and 5 are the closest to the existing transportation corridor, therefore having little impact on the environment within the Historic District and the surrounding historic buildings. Alternative 1 results in roadway placement to the south and west, for the longest distance through the Burlington Street Department property, but does not substantially alter the environment surrounding the historic buildings.

#### **GENERAL MITIGATION RECOMMENDATIONS**

The photographic documentation in this report can serve to record the setting of the Historic District in the Battery Street Extension section of the C-6 Alignment, prior to removal of any buildings.

Following the Secretary of the Interior's Standards for Rehabilitation of historic structures, general recommendations for roadway/sidewalk surfaces and bridges are listed below:

Photograph 1: Burlington, Vt. Rail Yard, Feb. 19, 1932  
Courtesy Special Collections, UVM

Photograph 2: Pine Street, south of Kilburn and Gates, c.  
1935. Courtesy Special Collections, UVM

Photograph 3: Pine Street widening project from Maple St. to  
Howard St. PWA Project No. 2232, Burlington, June 13, 1935.  
Courtesy Special Collections, UVM

Photograph 4: Pine St. Defense Area Project, Burlington,  
Vt. railroad crossing south of Howard Street, looking north.  
Sept. 15, 1944. Courtesy Special Collections, UVM

Photograph 5: Pine St. Defense Area Project, Burlington, Vt.,  
south of new RR crossing looking north. Oct. 11, 1944.  
Courtesy Special Collections, UVM

Photograph 6: Looking north from Flynn Ave. after completion of  
the Hot Plant Mix Wearing Surface. Nov. 9, 1945 Courtesy  
Special Collections, UVM

Photograph 7: Looking north on So. Battery St., from Maple  
Street intersection

Photograph 8: Looking northeast along Maple St. from Perkins  
Pier

Photograph 9: Looking east along Maple St. from So. Battery St.  
intersection

Photograph 10: 94-106 Maple Street, built 1885 by Horace  
Smith (a roof slater) & son

Photograph 11: Maple Street looking east from Pine St.  
intersection.

Photograph 12: Vermont Railway, Inc. rail yard, looking  
northeast

Photograph 13: City Wastewater Plant (Site 11), looking  
northwest

Photograph 14: Vermont Railways, Inc. (12) Roundhouse,  
looking northeast

Photograph 15: Rail yard (12); headqtrs bldg (left), Round-  
house, pumphouse, turntable (center), looking northeast

Photograph 16: Drawbridge (right), Canal Basin (35,  
background), looking east

Photograph 17: Rail yard (12, right) looking south along So.  
Battery St.; Desautels property (15, left)

Photograph 18: Rail yard (12) looking southwest to waste water  
plant (11, right rear) and Roundhouse (left rear)

Photograph 19: Rail yard and So. Battery St. looking north

Photograph 20: So. Battery Street from Maple St. intersection

### Sidewalk Surfaces

When selecting materials for sidewalk construction, concrete (a historic building material), rather than asphalt is recommended for urban areas, including densely populated neighborhoods. Reuse of concrete for replacement of historic concrete sidewalks is recommended. Use of concrete rather than asphalt for new sidewalks in historic neighborhoods is recommended.

### Bridges

Repair of existing historic bridges is recommended. If after a thorough investigation (including a work-up of cost alternatives), repair is not determined an economic or safe alternative, and replacement is necessary, the replacement bridge should differ from the old in workmanship and materials but be compatible in design, scale and feeling. Reuse old abutments for new crossings when possible.

### **III APPENDIX**

#### **A. HISTORIC PHOTOGRAPHS**

Photographs 1-6  
Courtesy Special Collection, UVM

#### **B. FIELD PHOTOGRAPHS**

Photographs 7-67  
Credit: Liz Pritchett, Dec. 95- Jan.96

Historic Preservation, Montpelier, Vermont

**PHOTOGRAPHS**

L. L. McAllister Collection, Special Collections, Bailey Howe Library, Burlington, Vermont

**INTERVIEWS**

John Pennington, President, Vermont Railway, Inc., January 29, 1996

John O'Brian, Manager, Gregory Supply, January 29, 1996

Burlington Public Works Department, January 29, 1996

**B. MAPS**

See attached maps on following pages

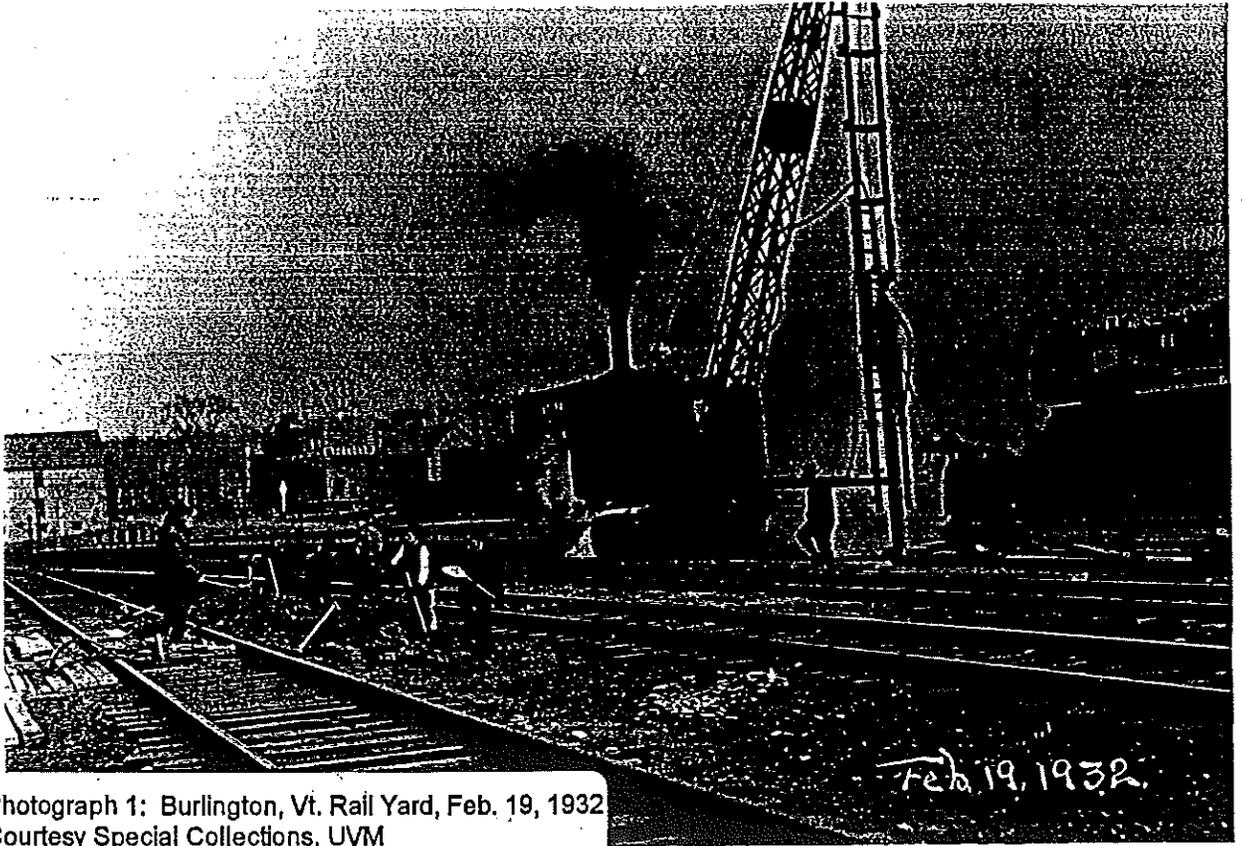
**B. MAPS**

See attached maps on following pages

1. Southern Connector/ Champlain Parkway Project  
Existing and Potential National Register Sites
2. Survey Map of Pine Street Corridor  
Contributing and Non-Contributing  
Historic Structures
3. Battery Street Historic District
4. Lakeside Historic District
5. 1890 G. M. Hopkins Map  
City of Burlington (Pine Street segment)

STYLE NO. 57-4P

FILE NO:



Photograph 1: Burlington, Vt. Rail Yard, Feb. 19, 1932  
 Courtesy Special Collections, UVM

Feb 19, 1932

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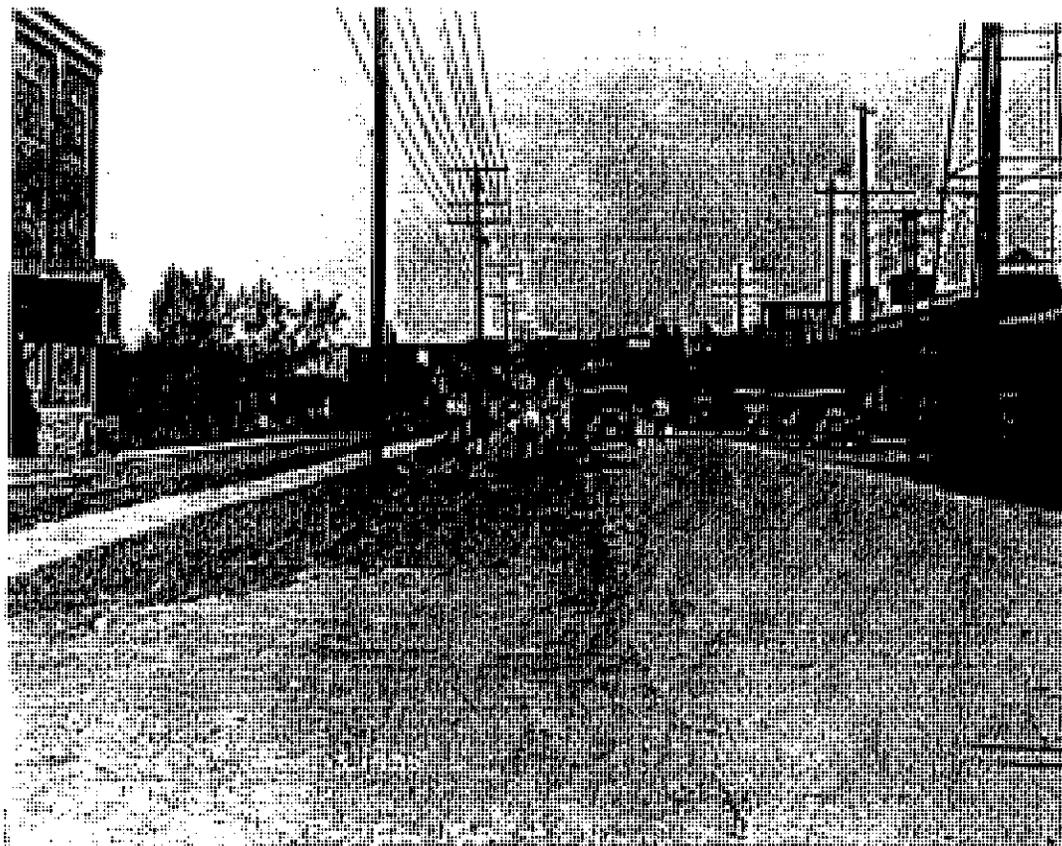
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Photograph 2: Pine Street, south of Kilburn and Gates, c. 1935. Courtesy Special Collections, UVM



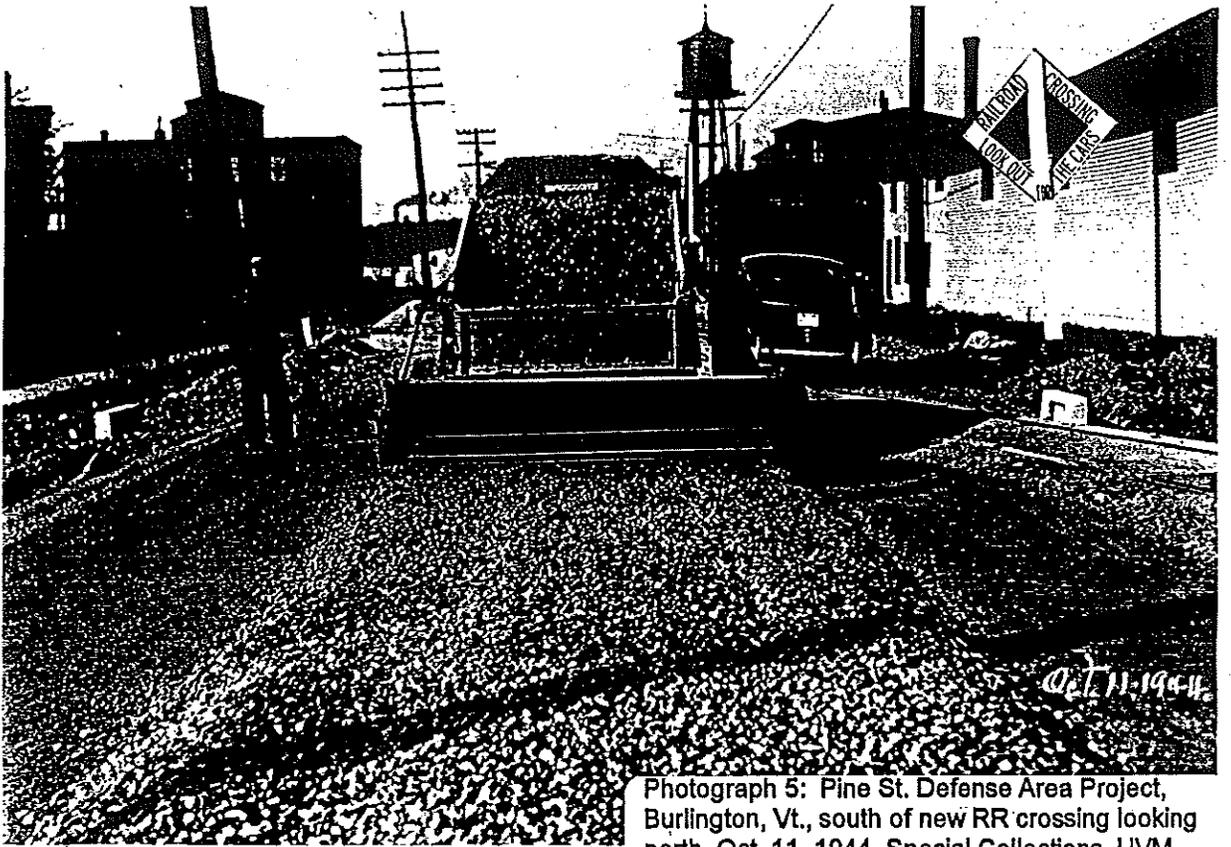
Photograph 3: Pine St. widening project from Maple St. to Howard St. PWA Project No. 2232, Burlington, June 13, 1935. Courtesy Special Collections, UVM



Photo 4: Pine St. Defense Area Project, Burlington, Vt. railroad crossing south of Howard St. looking north. Sept. 15, 1944. Courtesy Special Collections, UVM

STYLE NO. 57-4P

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Photograph 5: Pine St. Defense Area Project, Burlington, Vt., south of new RR crossing looking north. Oct. 11, 1944. Special Collections, UVM

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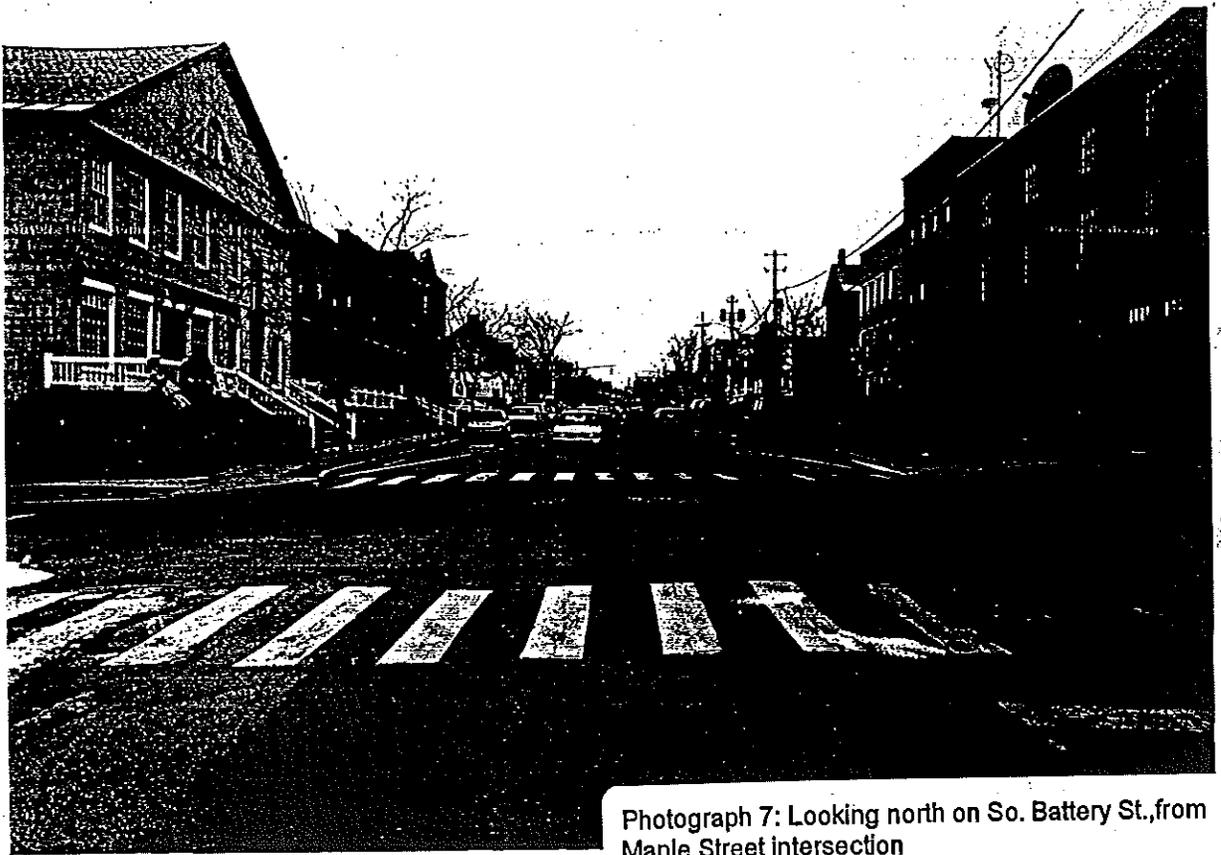
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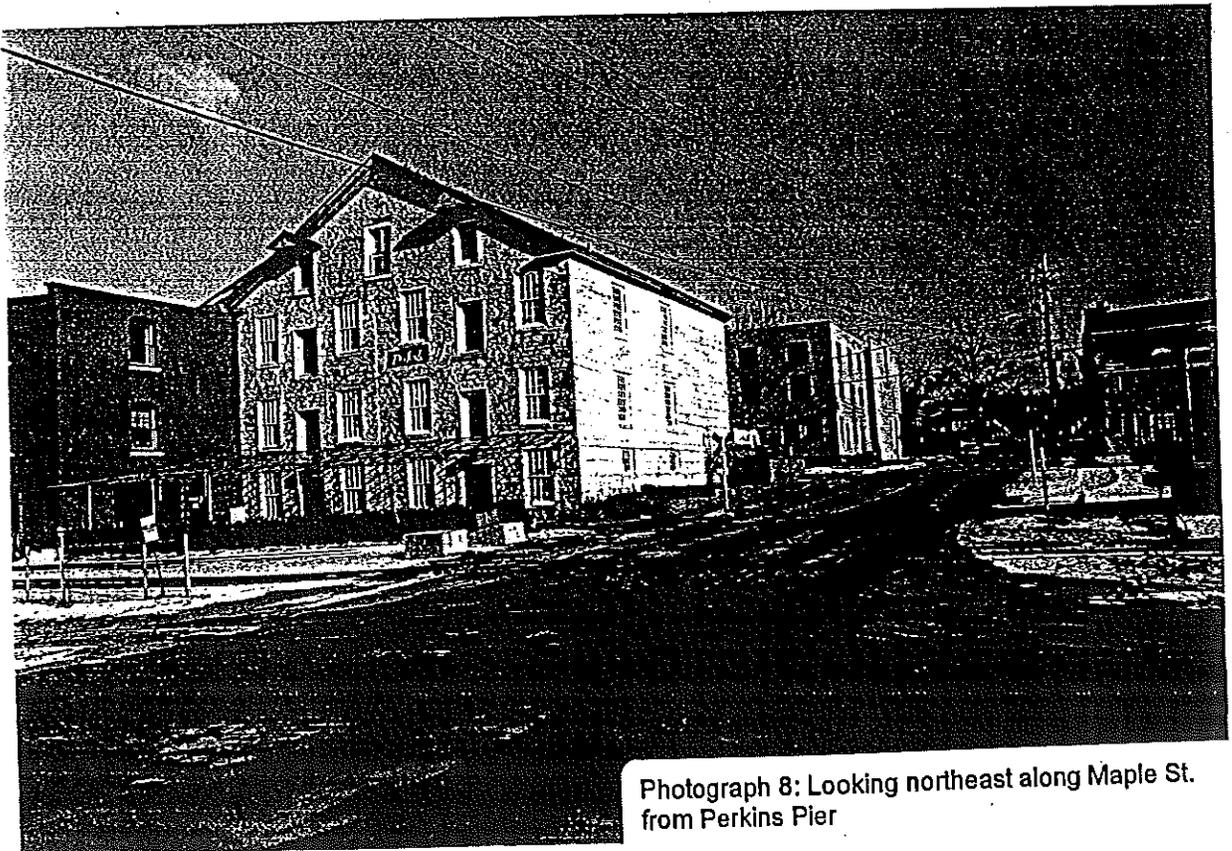
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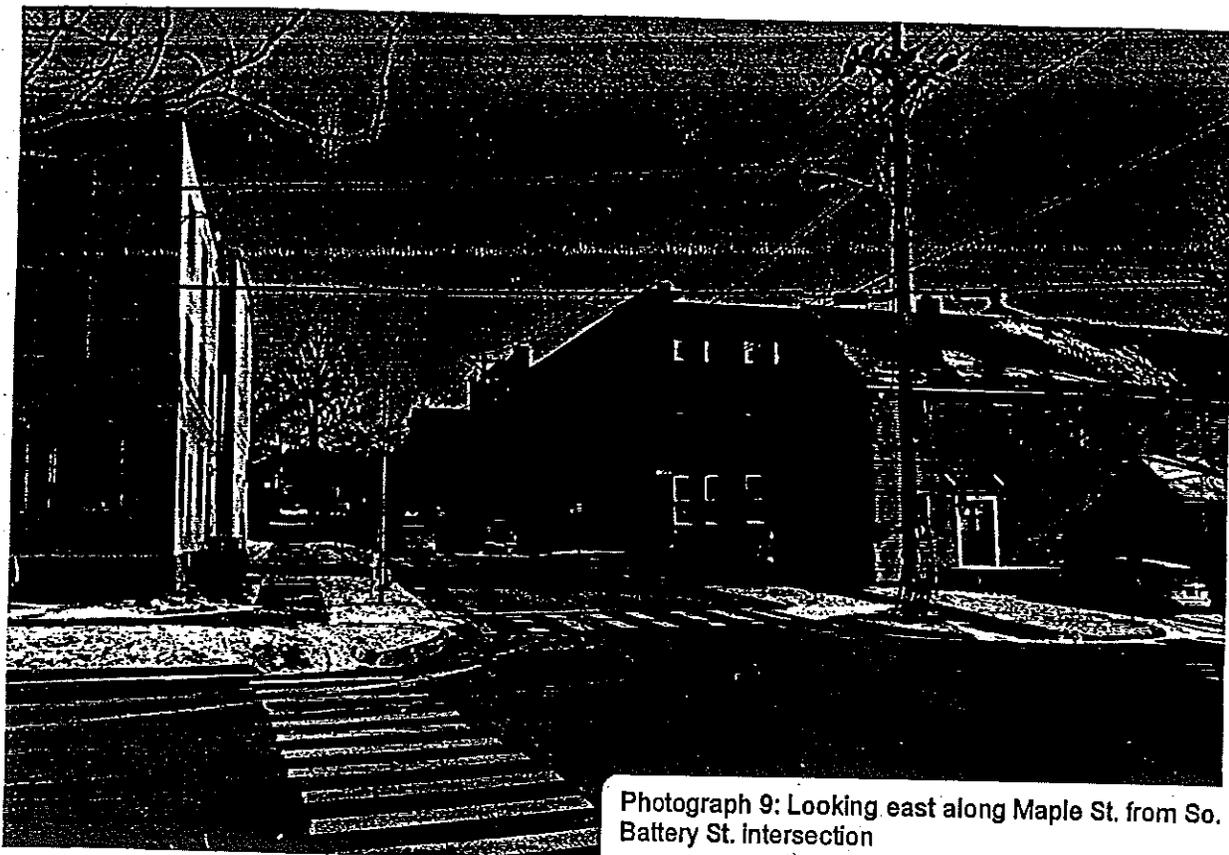
Photograph 6: Looking north from Flynn Ave. after completion of the Hot Plant Mix Wearing Surface. Nov. 9, 1945 Courtesy Special Collections, UVM



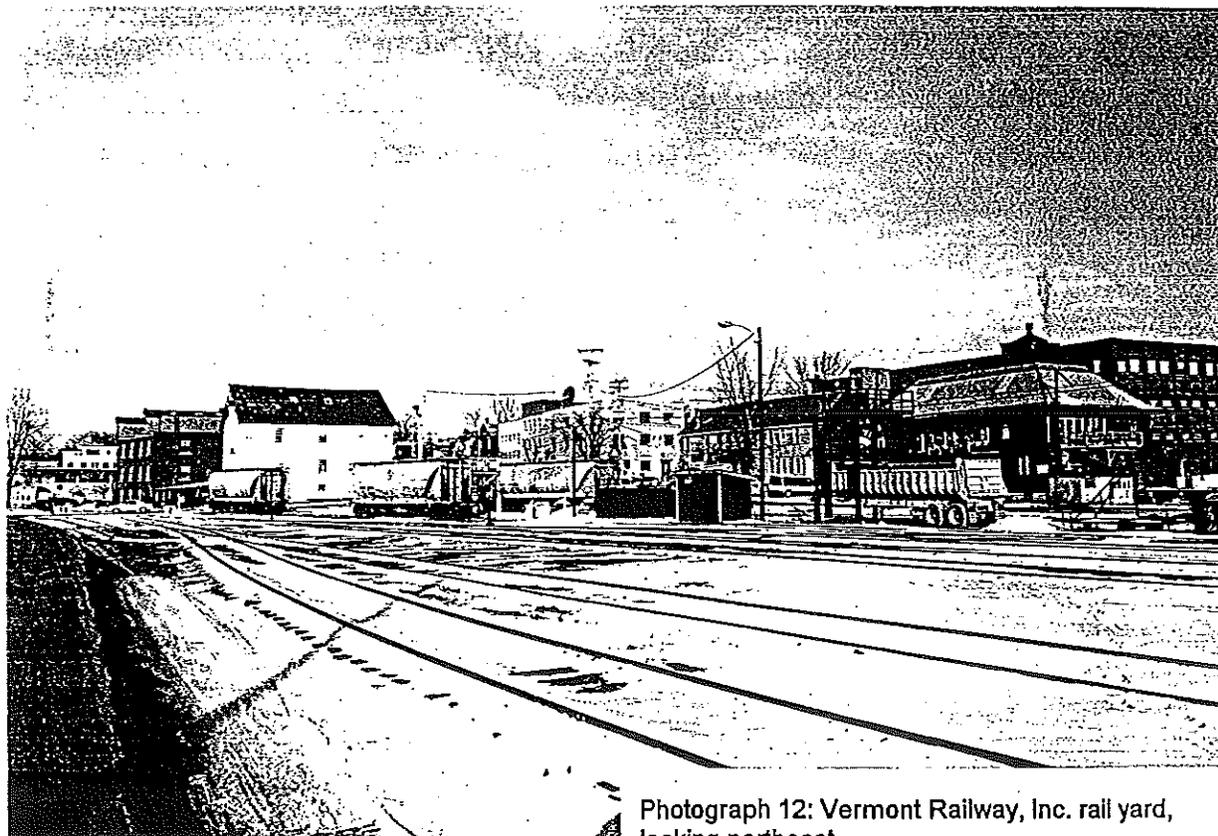
Photograph 7: Looking north on So. Battery St., from Maple Street intersection



Photograph 8: Looking northeast along Maple St. from Perkins Pier



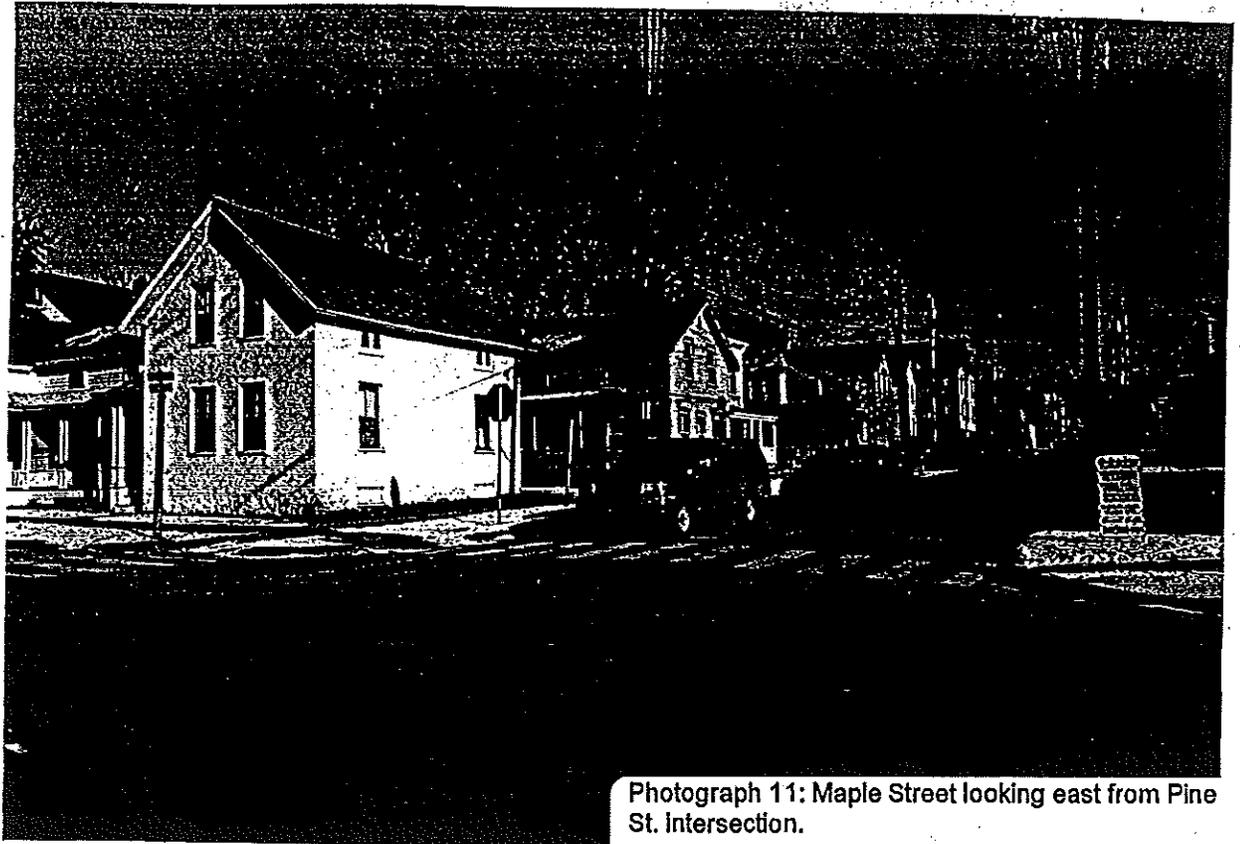
Photograph 9: Looking east along Maple St. from So. Battery St. intersection



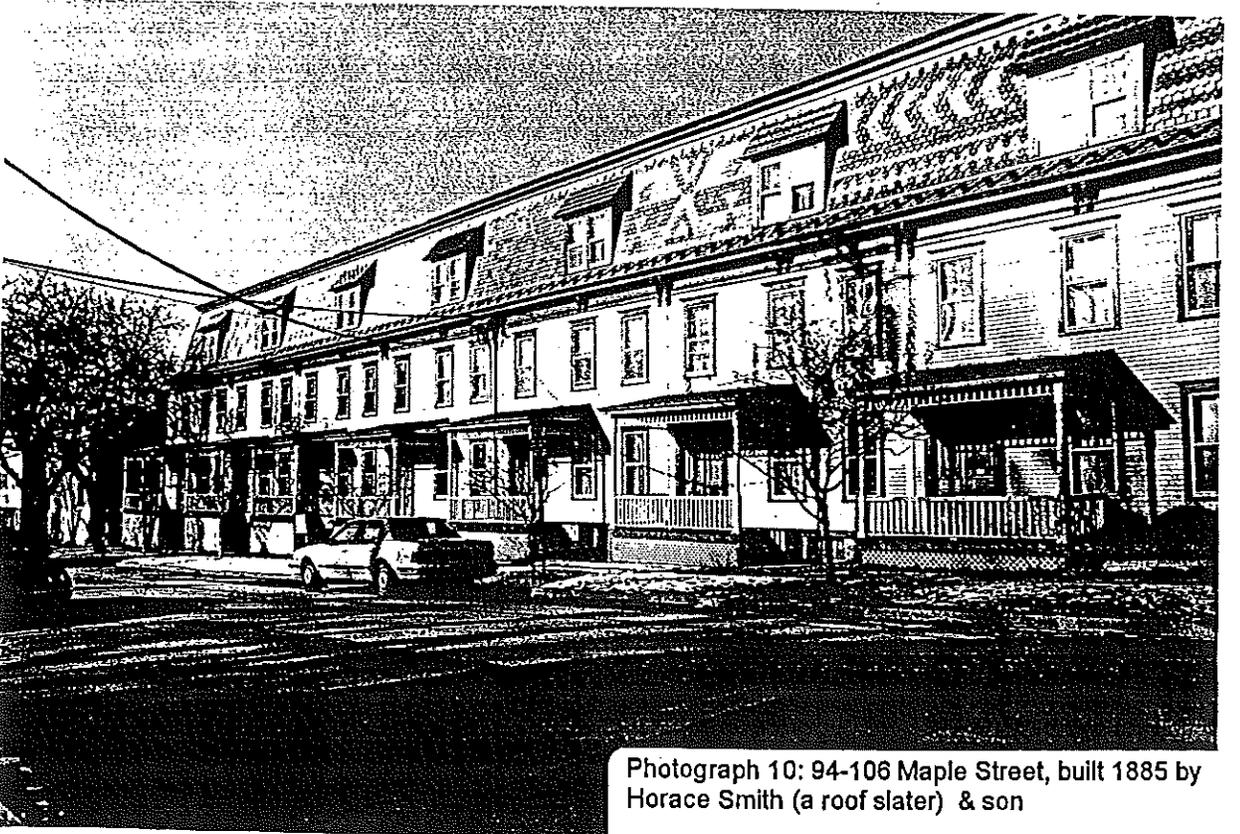
Photograph 12: Vermont Railway, Inc. rail yard, looking northeast

STYLE NO. 57-4P

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Photograph 11: Maple Street looking east from Pine St. Intersection.



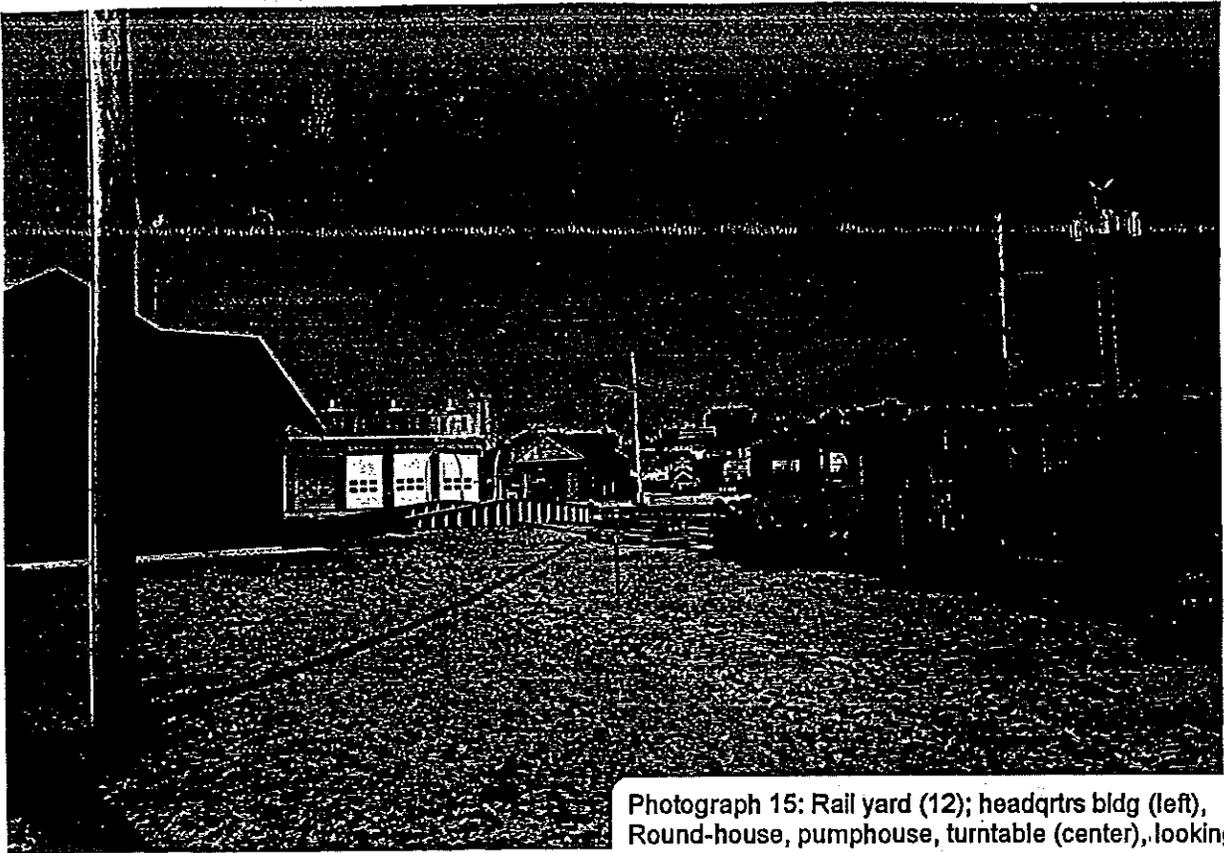
Photograph 10: 94-106 Maple Street, built 1885 by Horace Smith (a roof slater) & son

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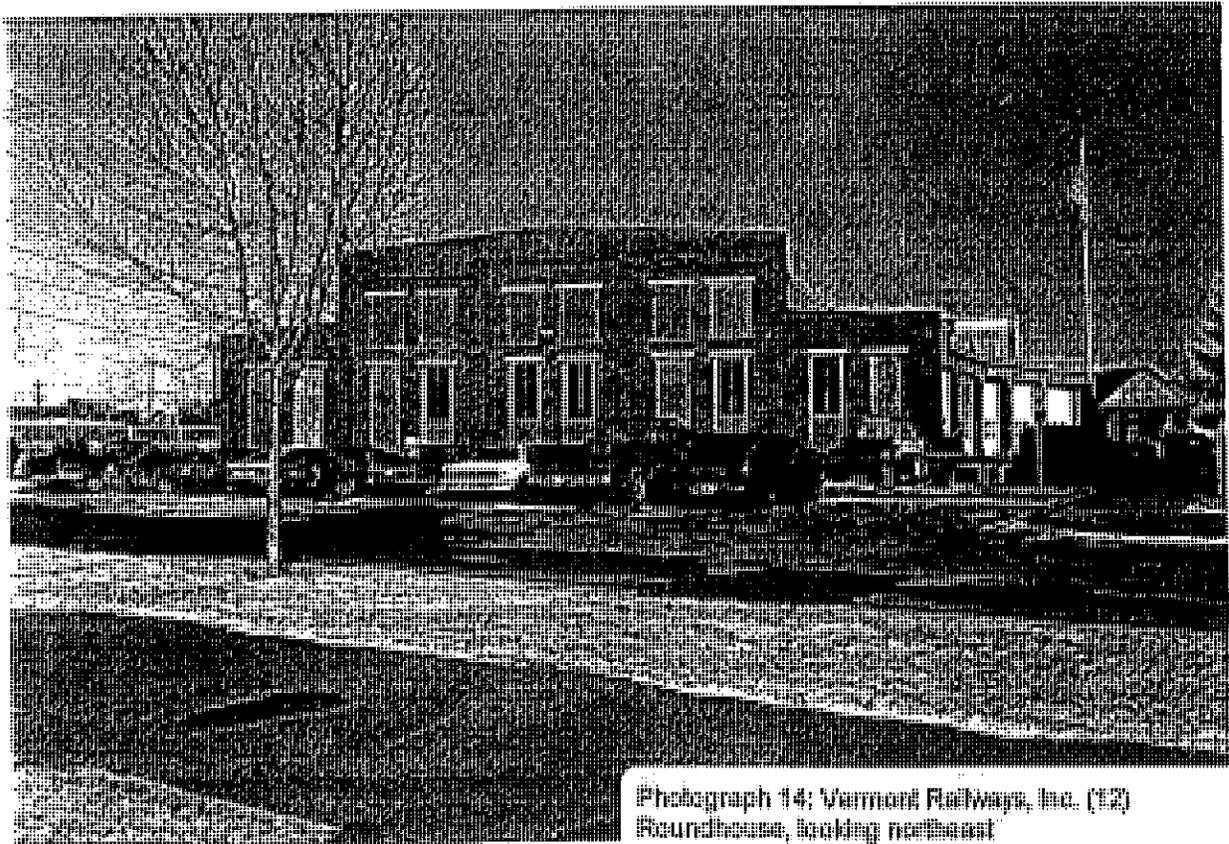
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Photograph 15: Rail yard (12); headqtrs bldg (left), Round-house, pumphouse, turntable (center), looking northeast



Photograph 14: Vermont Railway, Inc. (12) Roundhouse, looking northeast



Photograph 13: City Wastewater Plant (Site 11), looking northwest

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Photograph 16: Drawbridge (right), Canal Basin (35, background), looking east

ITEM NO:

DATE: 1/22/2011



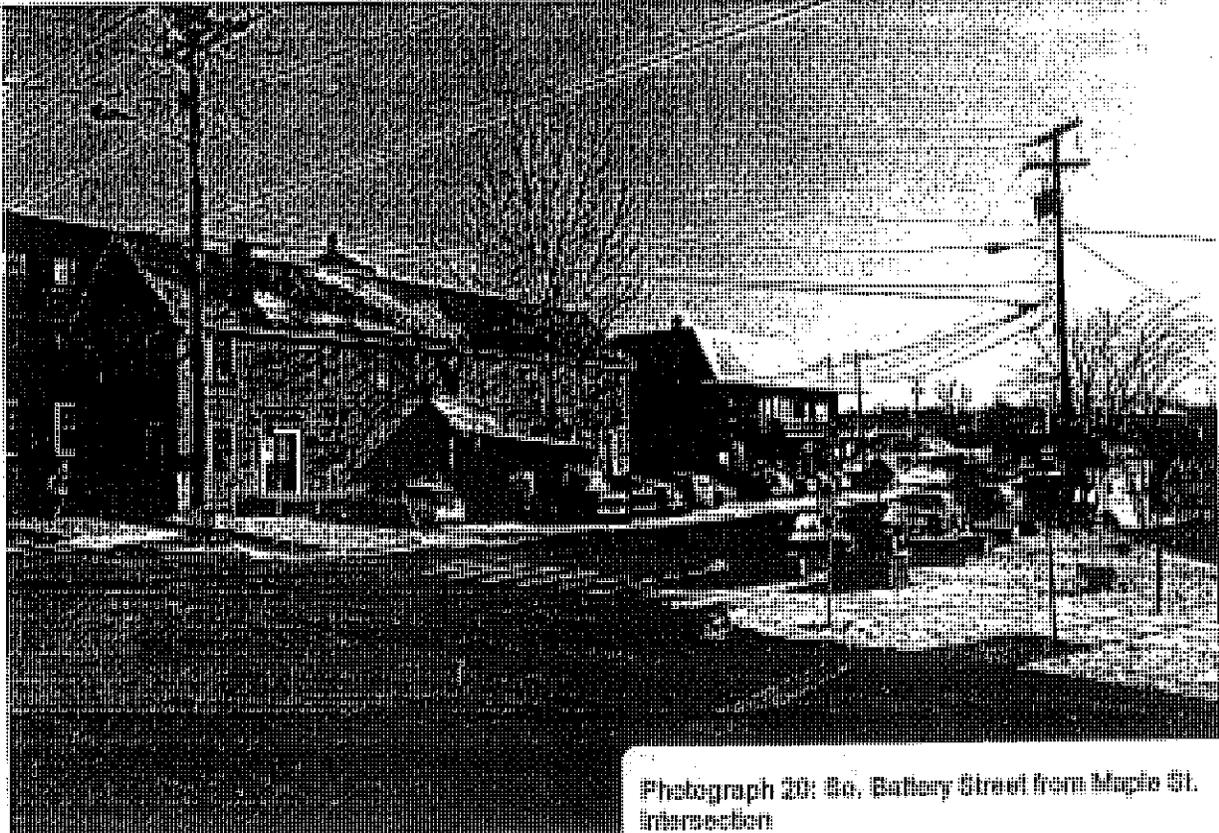
Photograph 17: Rail yard (12, right) looking south along So. Battery St.; Desautels property (15, left)



Photograph 18: Rail yard (12) looking southwest to waste water plant (11, right rear) and Roundhouse (left rear)



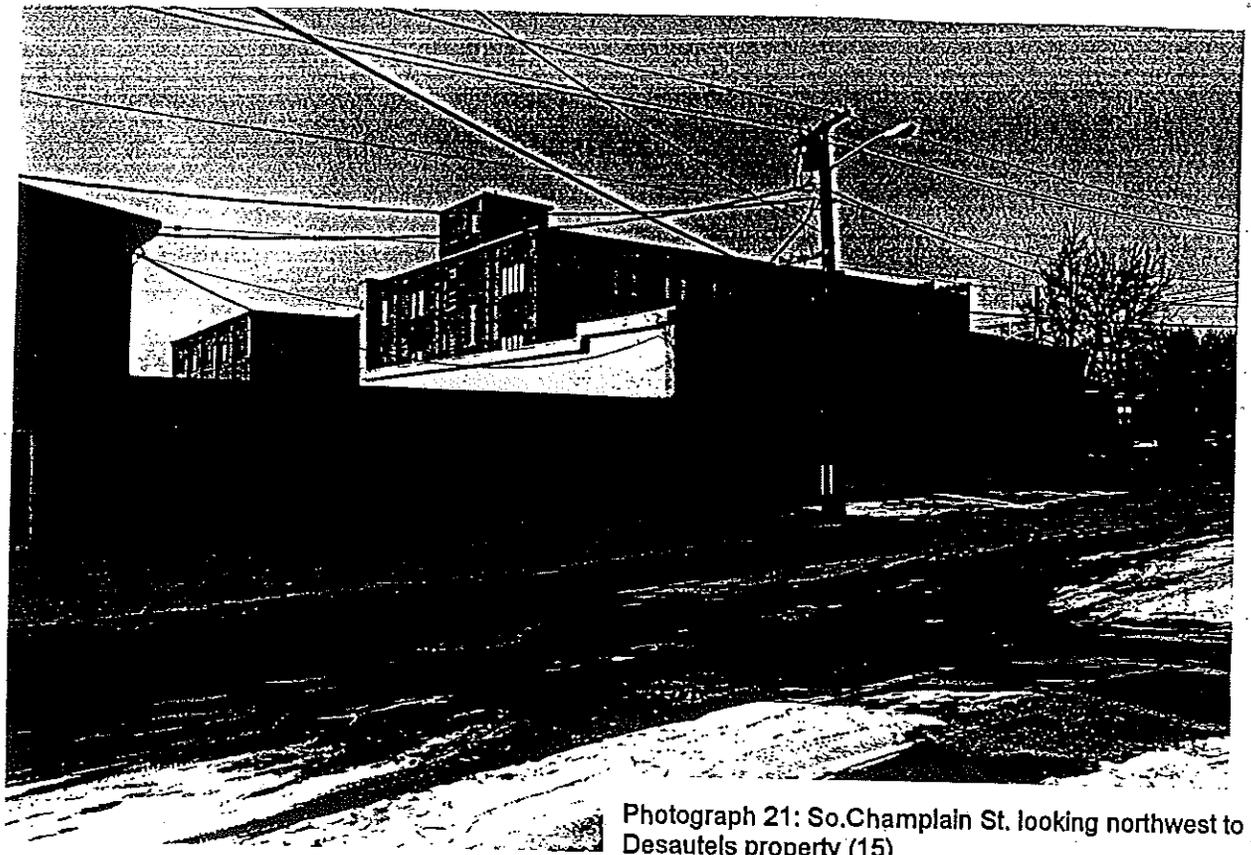
Photograph 19: Rail yard and So. Battery St. looking north



Photograph 20: So. Battery Street from Maple St. intersection

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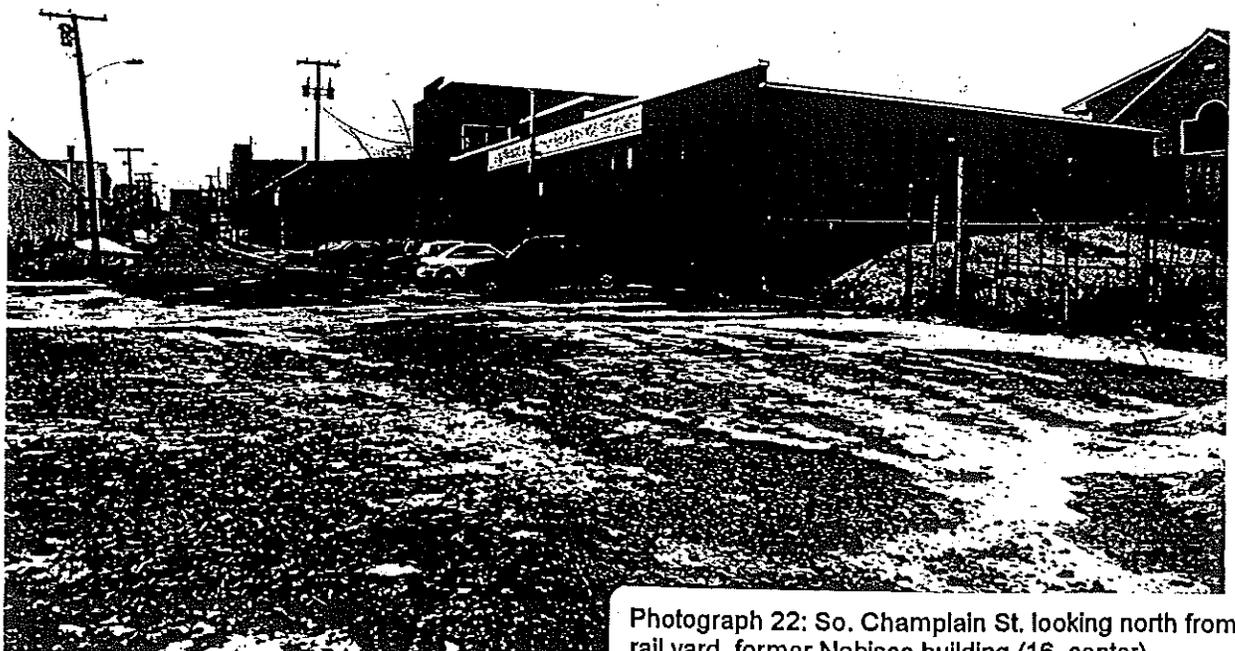


Photograph 21: So. Champlain St. looking northwest to Desautels property (15)

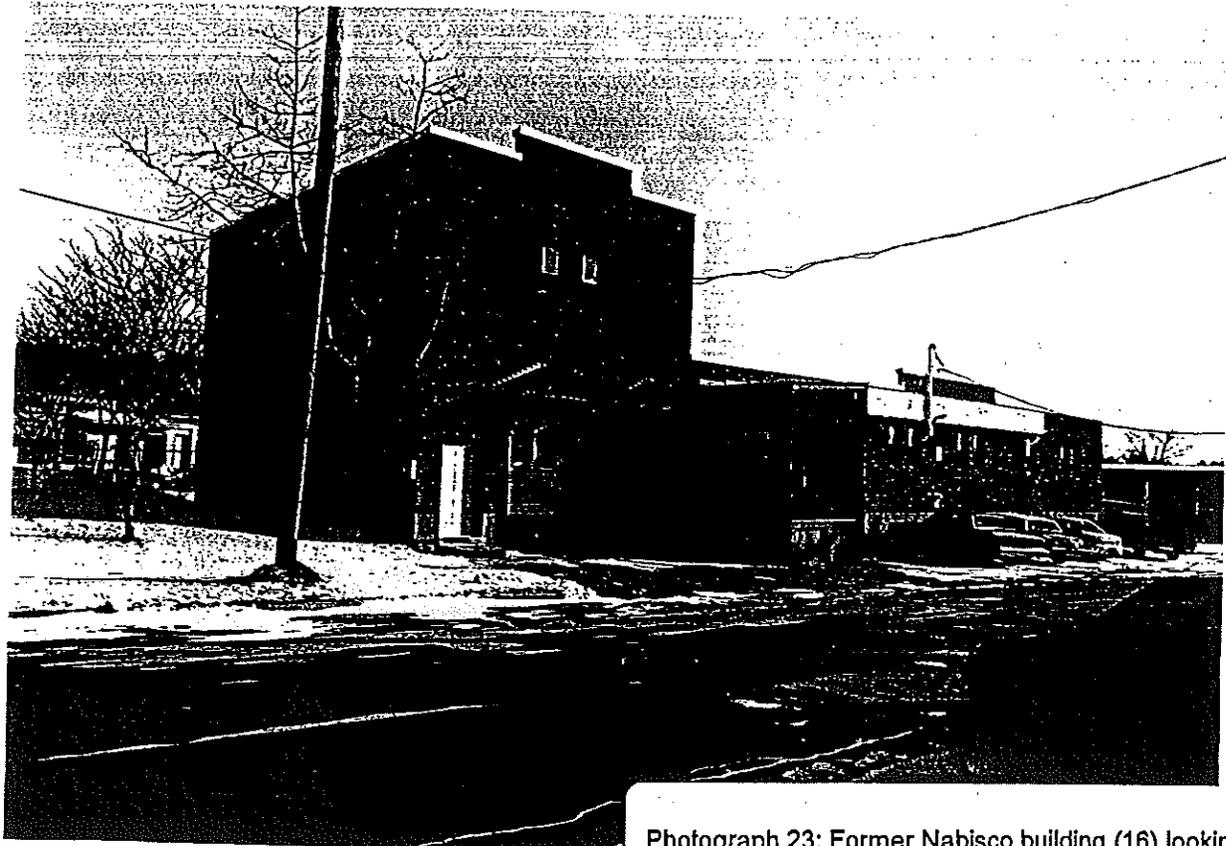
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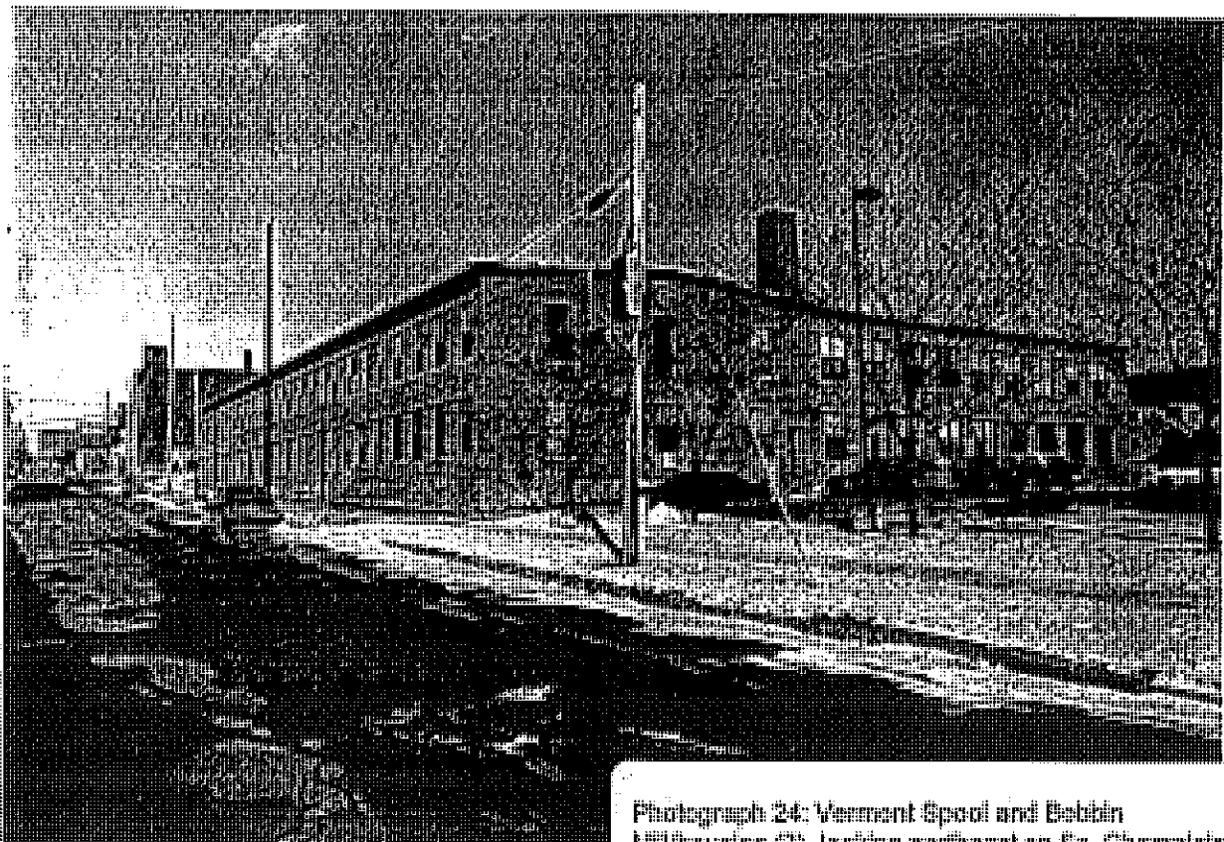
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Photograph 22: So. Champlain St. looking north from rail yard, former Nabisco building (16, center)



Photograph 23: Former Nabisco building (16) looking east, So. Champlain St.



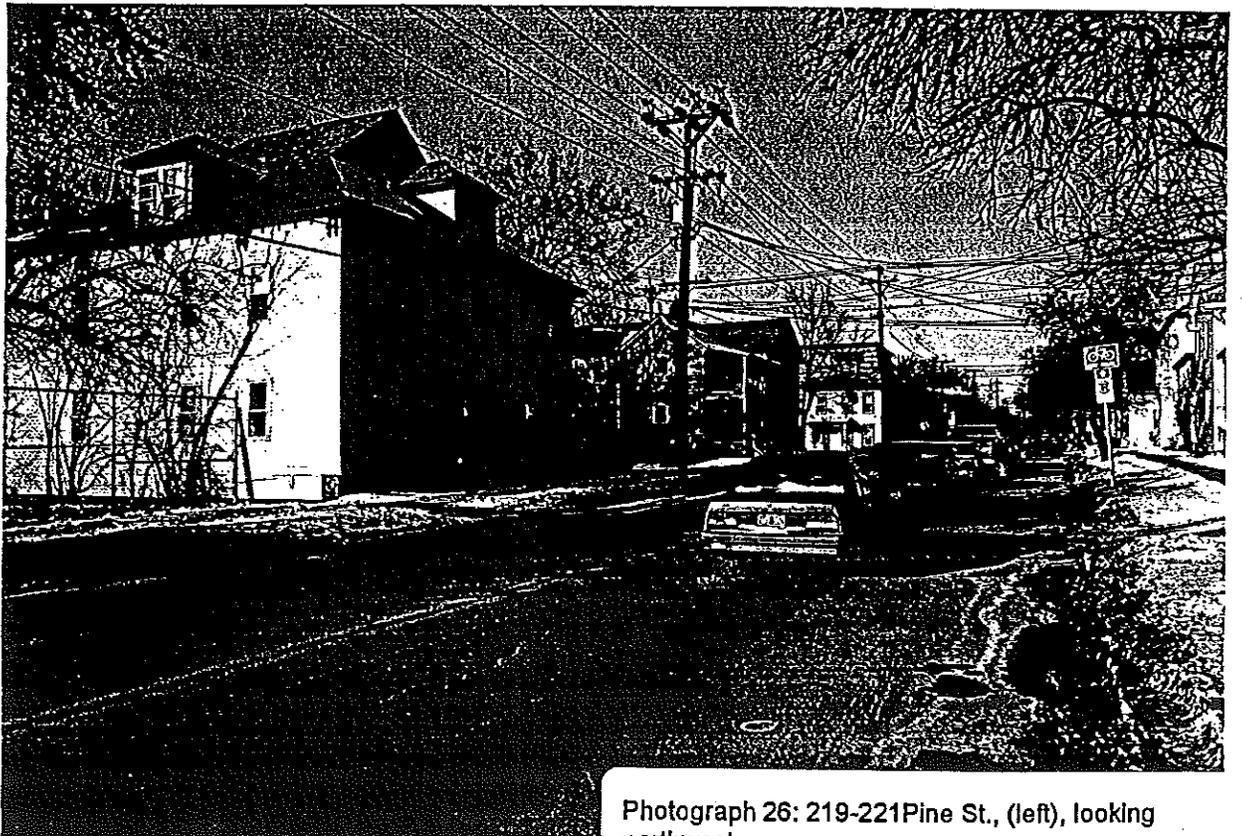
Photograph 24: Vermont Spool and Bobbin Millhousing (3), looking northwest on So. Champlain

STYLE NO. 57-4P

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Photograph 25: 109 Maple (9), 214, 218, 220, 224-226, 230 Pine St. (17, 18, 19, 21, 22, left to right)



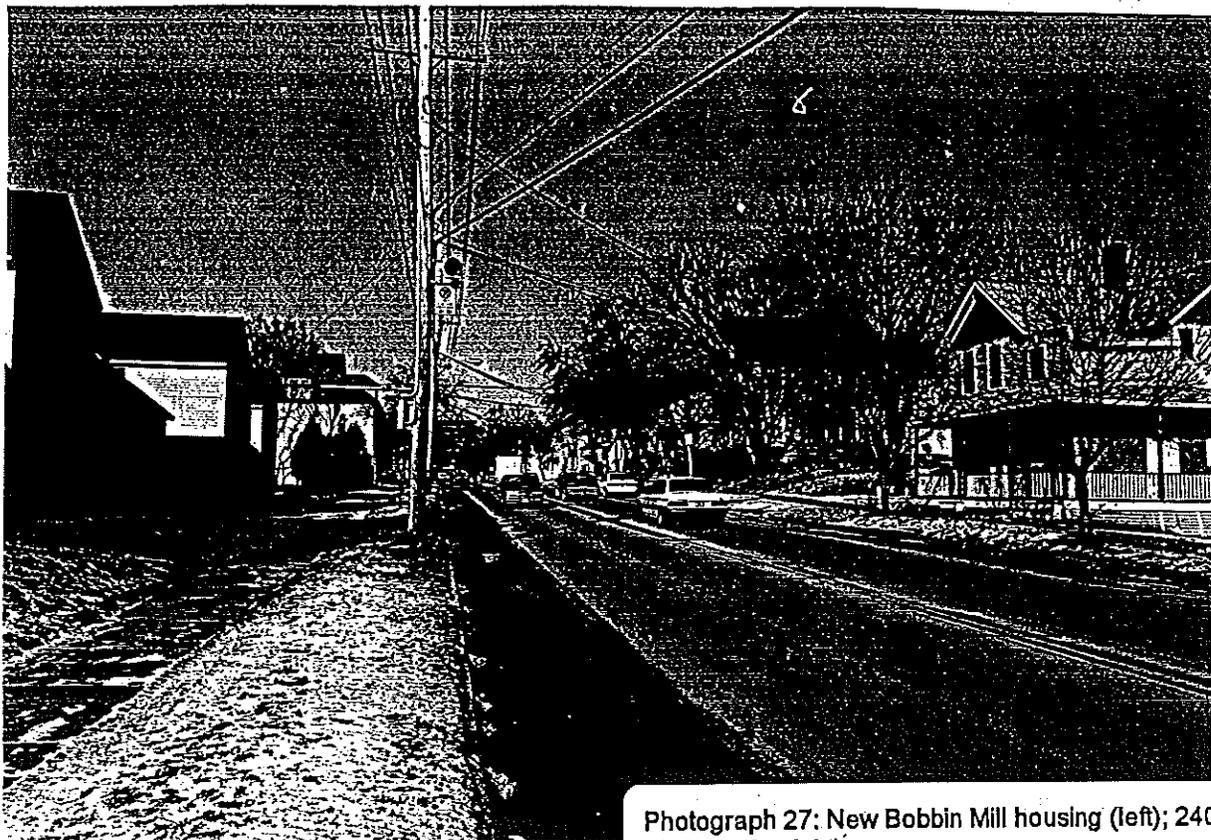
Photograph 26: 219-221 Pine St., (left), looking northwest.

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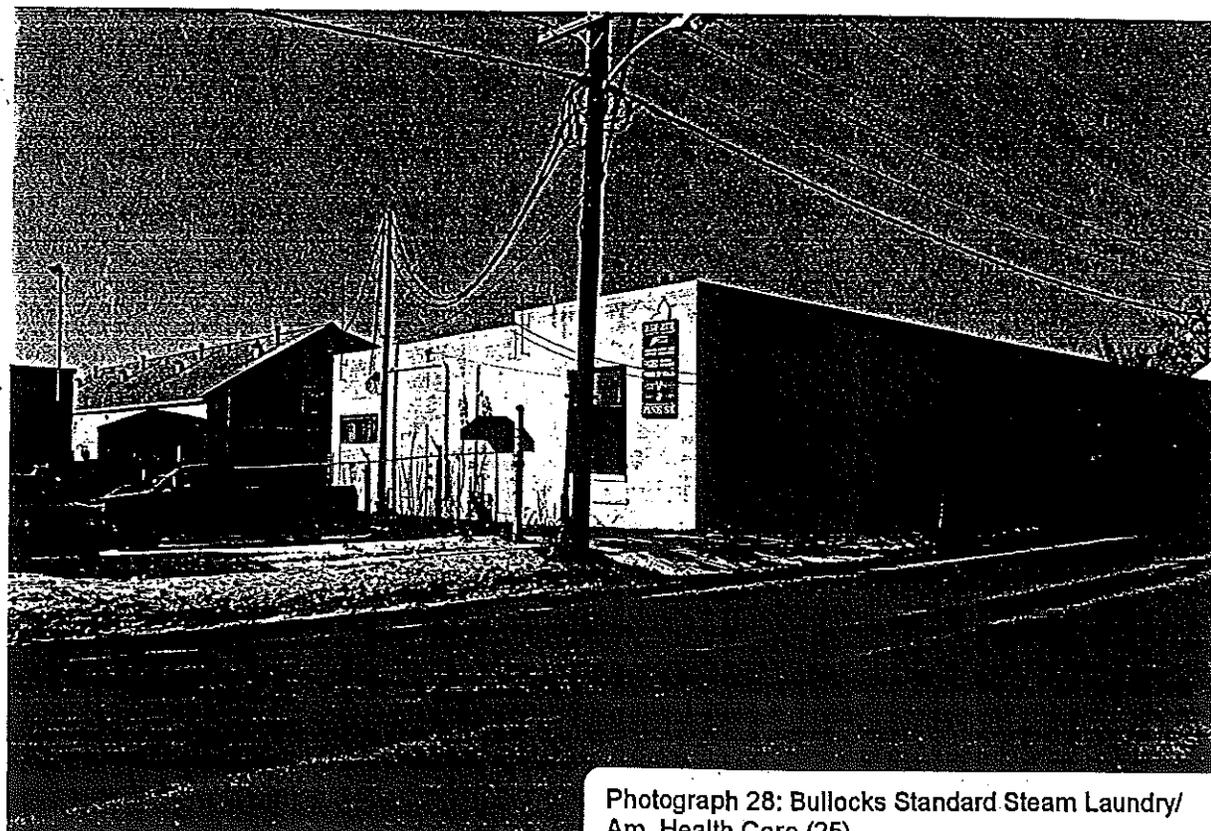
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Lebanonville  
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Photograph 27: New Bobbin Mill housing (left); 240 Pine St. (far right)



Photograph 28: Bullocks Standard Steam Laundry/  
Am. Health Care (25)

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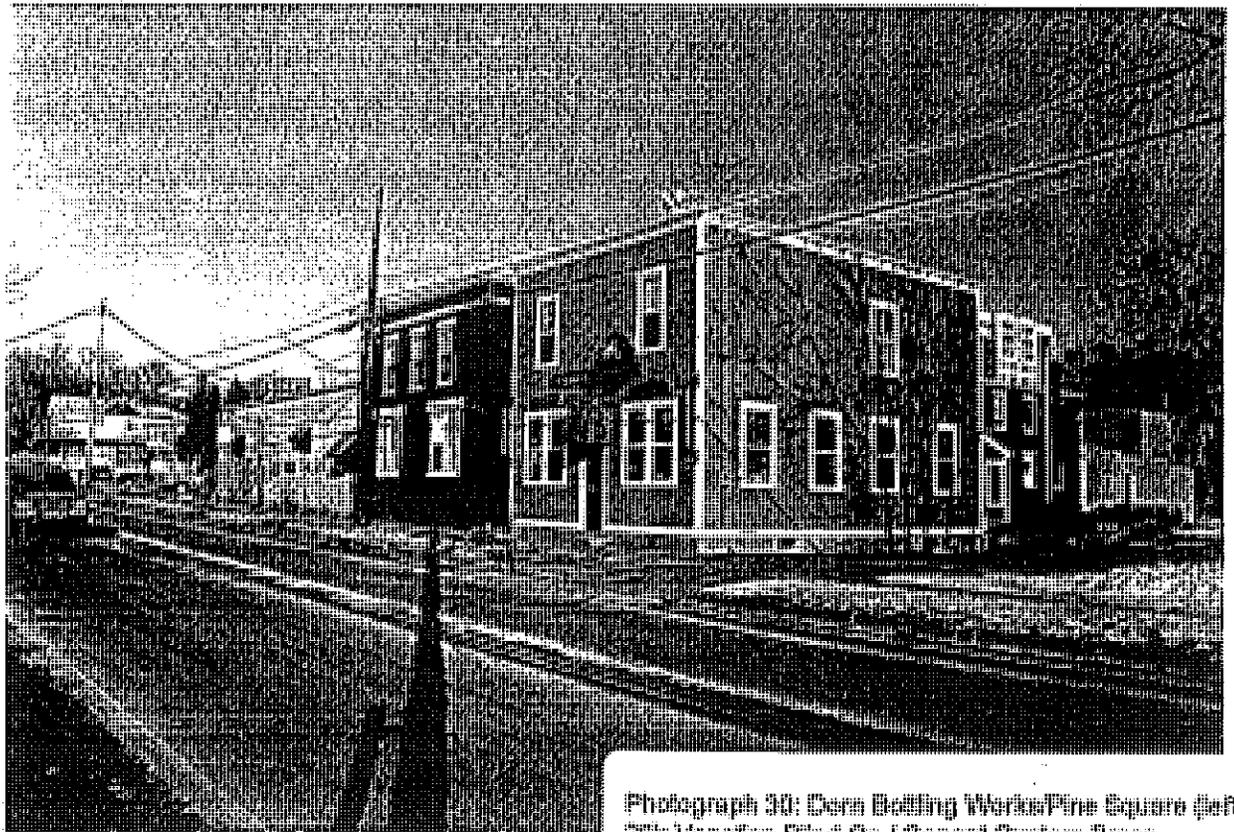
Photograph 29: Former Granite shed (rebuilt), c. 1990 (25A)

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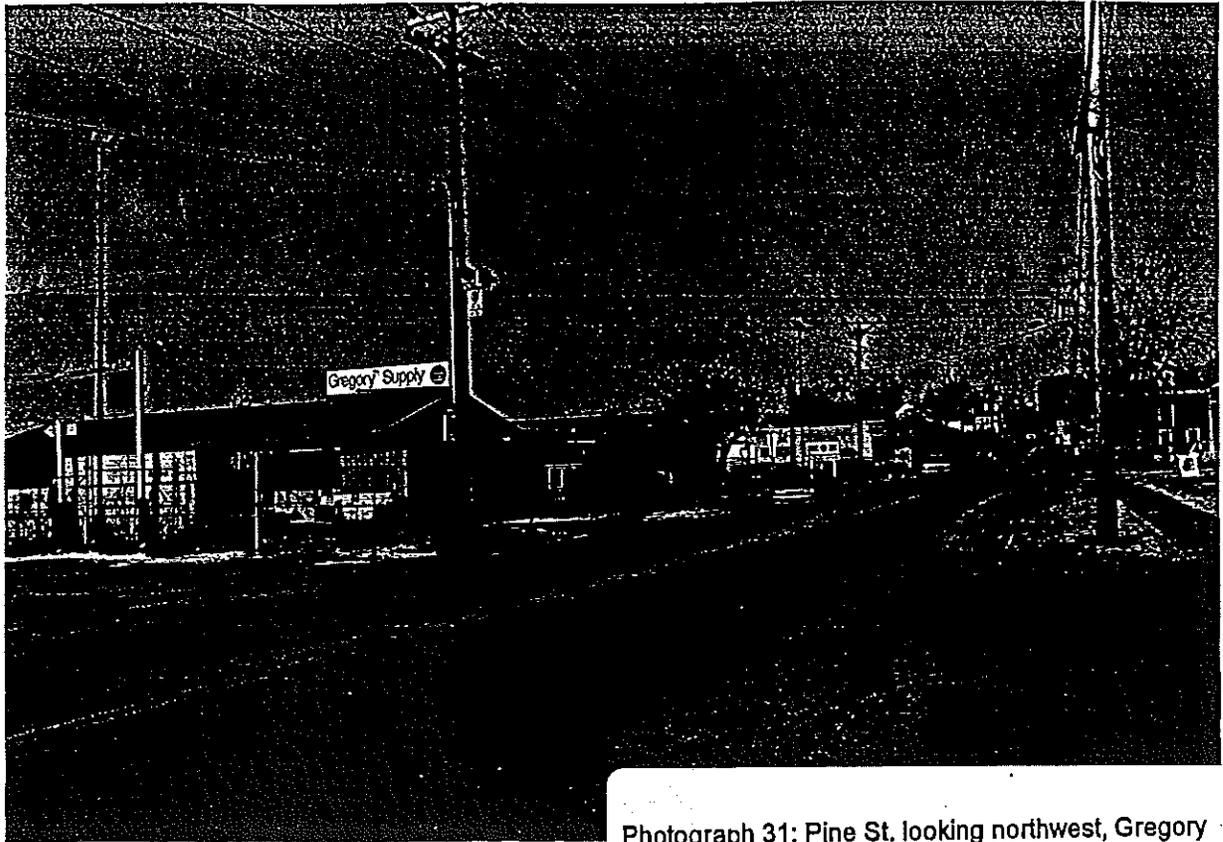
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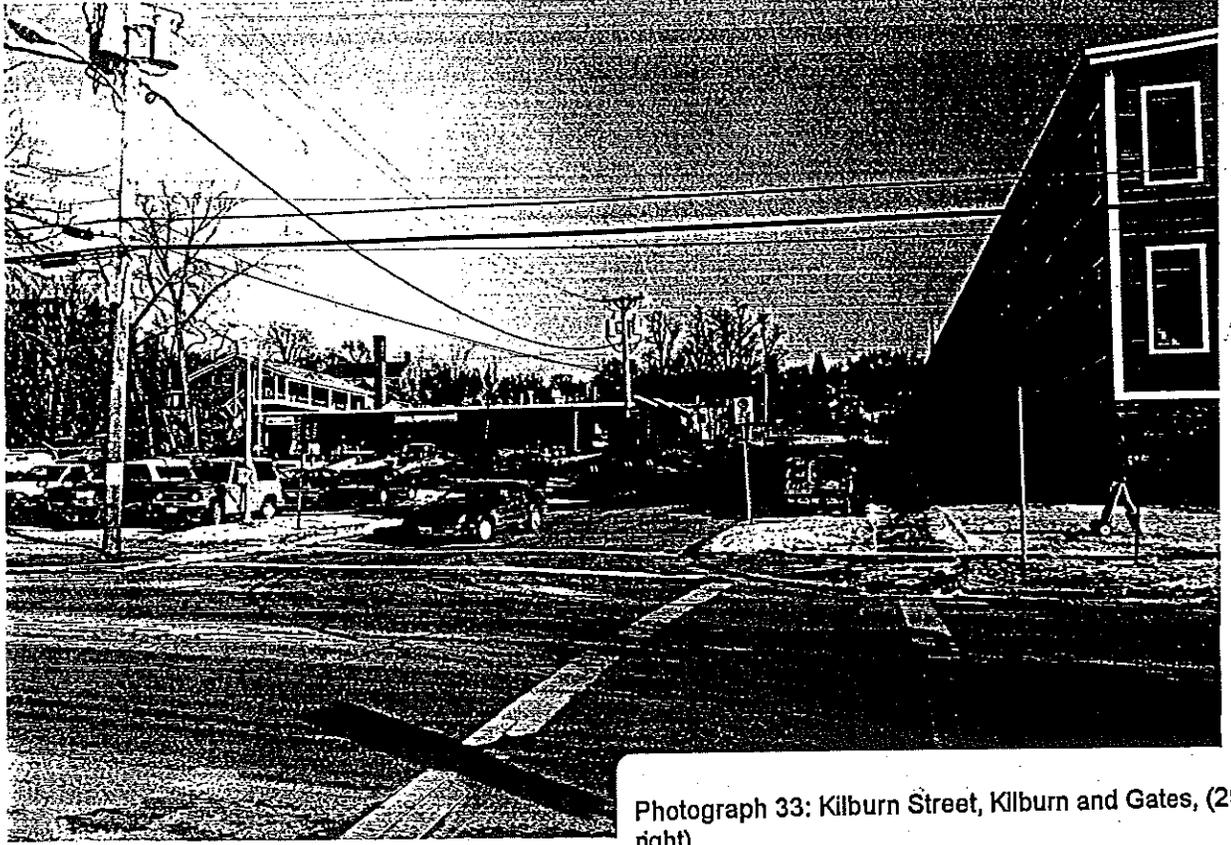
Photograph 30: Corn Bolting Works/Fine Square (left, 20); Venetian Blind Co./Conant Custom Brass (27)



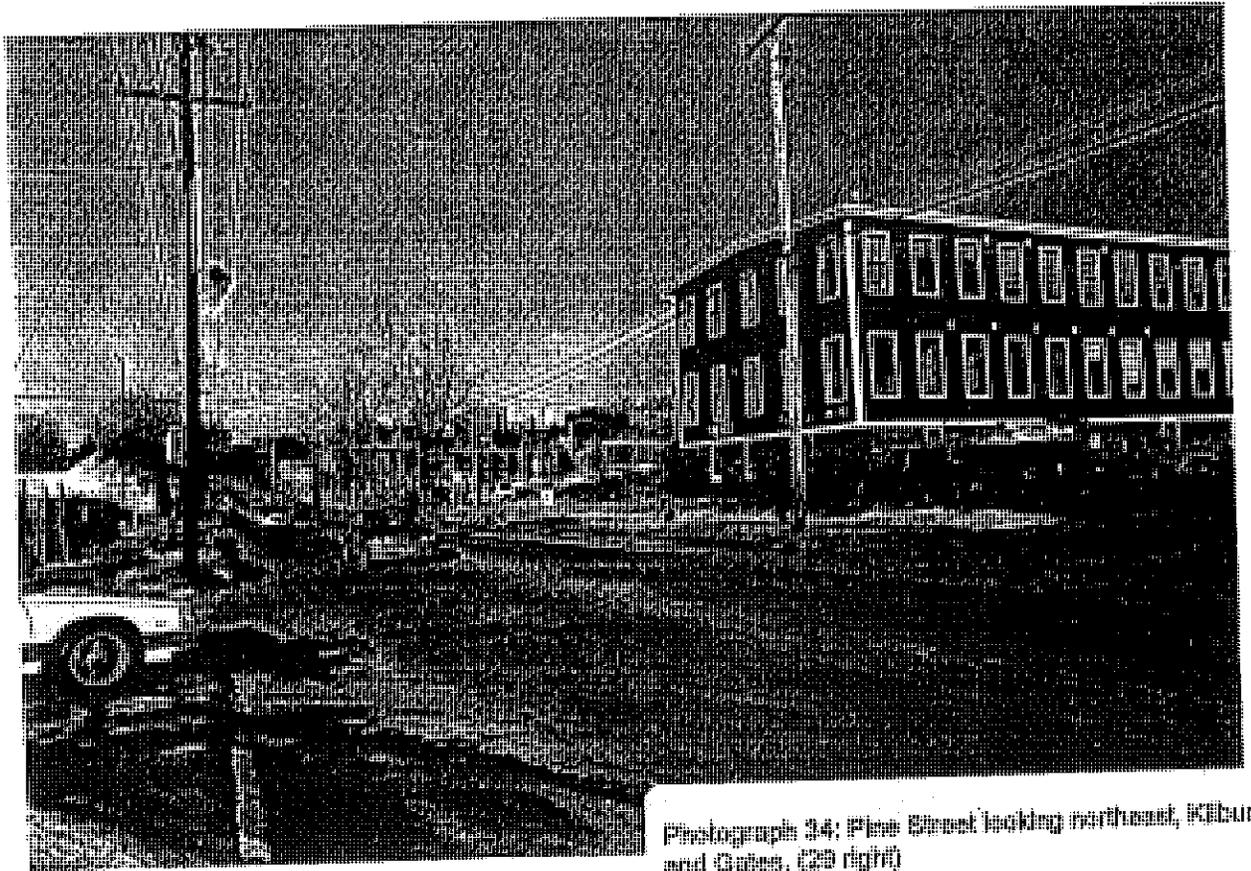
Photograph 31: Pine St. looking northwest, Gregory Supply (28), (Shed A in foreground left),



Photograph 32: Gregory Supply, Shed B (left), Shed A (right)



Photograph 33: Kilburn Street, Kilburn and Gates, (29, right)



Photograph 34: Pine Street looking northeast, Kilburn and Gates, (29 right)



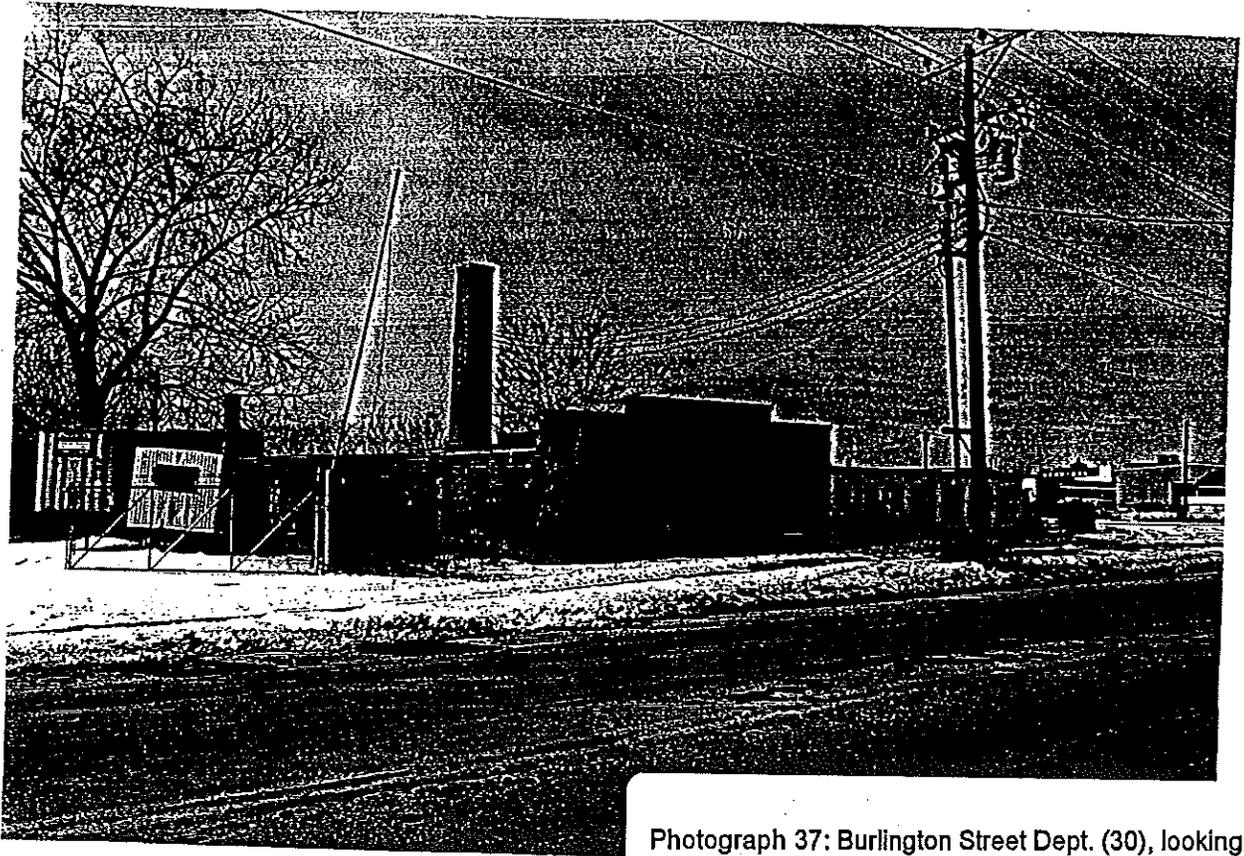
Photograph 35: Pine Street looking northeast, Kilbourn and Gates (20, left); Hulbert Supply (31, right)



Photograph 36: Pine Street, looking southwest, Burlington Street Dept. (30, center and right)

STYLE NO. 57-4P

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Photograph 37: Burlington Street Dept. (30), looking west from Pine St.

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Photograph 38: Burlington Street Dept. (30), looking south; note rail siding in foreground

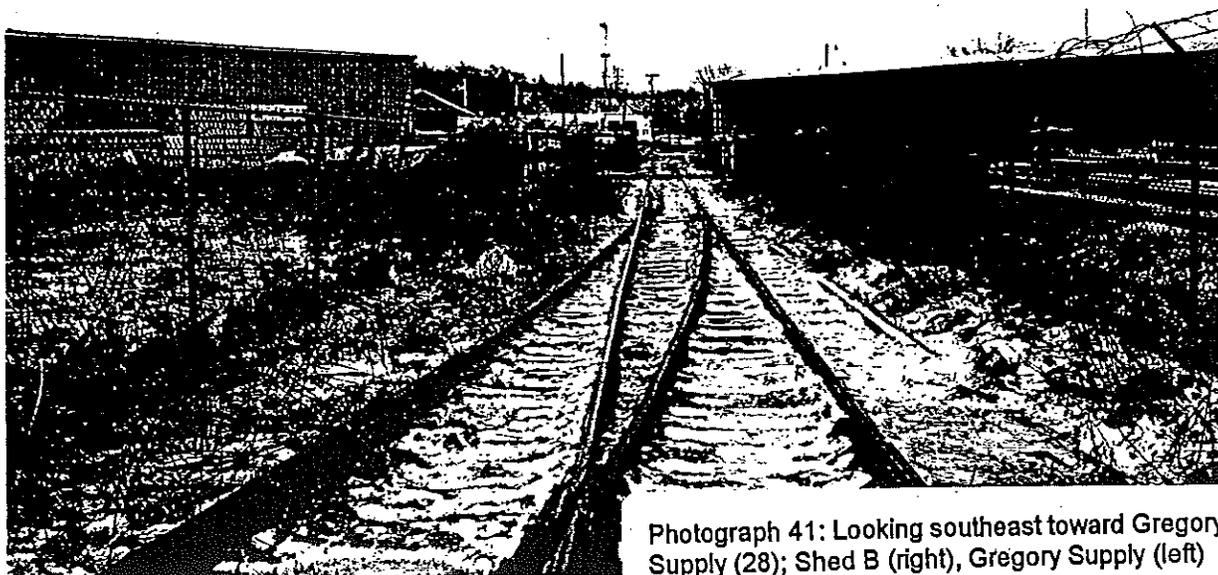


Photograph 39: Looking northwest from western side of Pine St. along historic rail corridor; Gregory Supply shed B, (left); main building, (right); Shed A, (far right)



Photograph 40: Looking southeast down rail corridor through Gregory Supply (28) property

FILE NO:



Photograph 41: Looking southeast toward Gregory Supply (28); Shed B (right), Gregory Supply (left)

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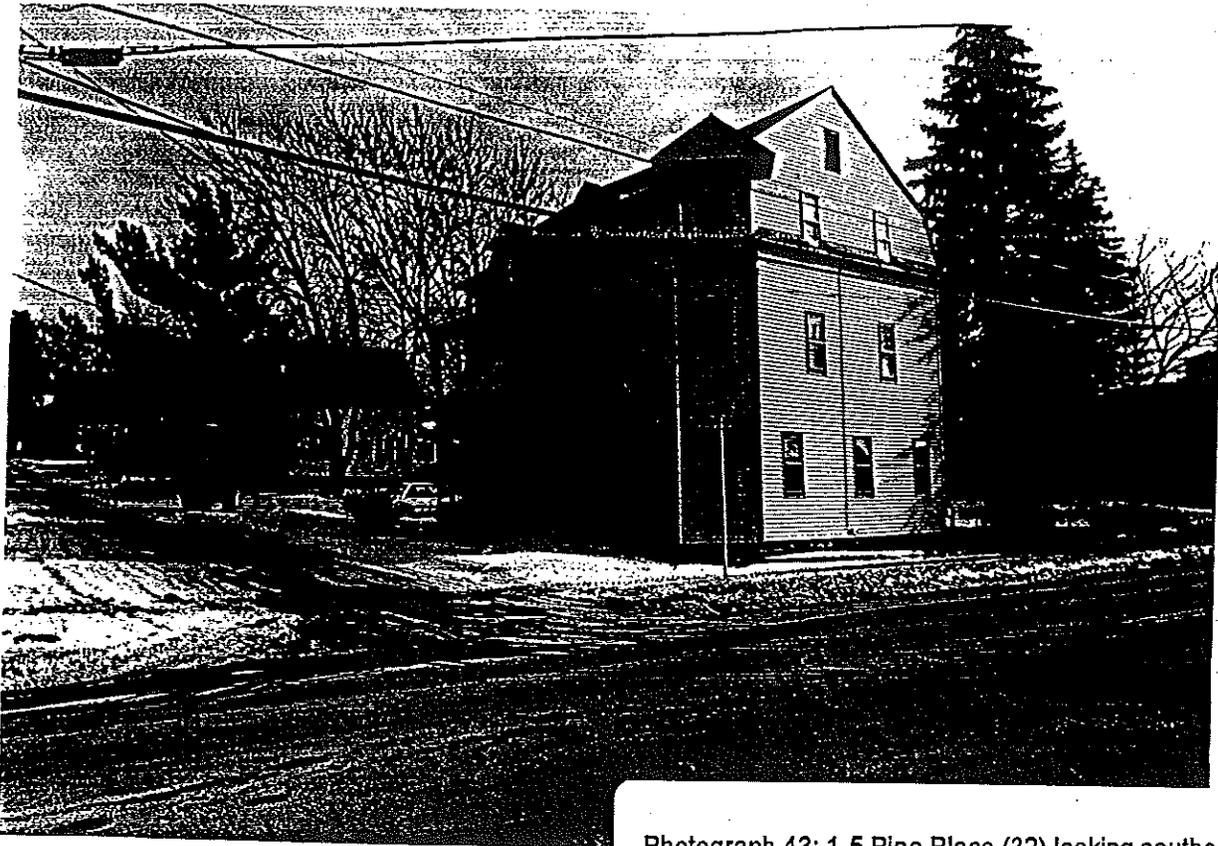
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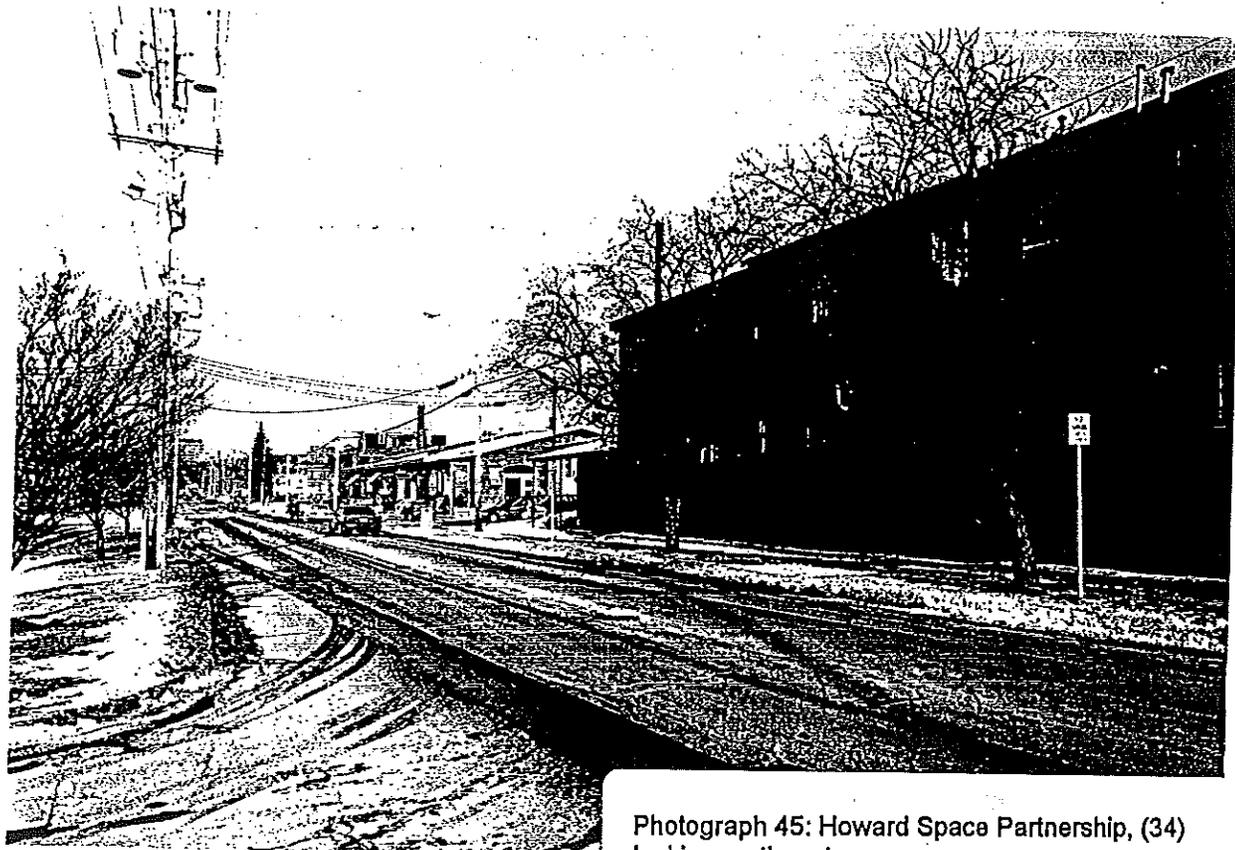
Photograph 42: Looking southeast from rail yard, Desautels (15, far left); Nabisco (16, left)



Photograph 43: 1-5 Pine Place (32) looking southeast



Photograph 44: 7 Marble Ave, former Maple Co. (33), looking east, Marble Ave., left



Photograph 45: Howard Space Partnership, (34) looking northeast



Photograph 46: Howard Space Partnership (34) looking northeast

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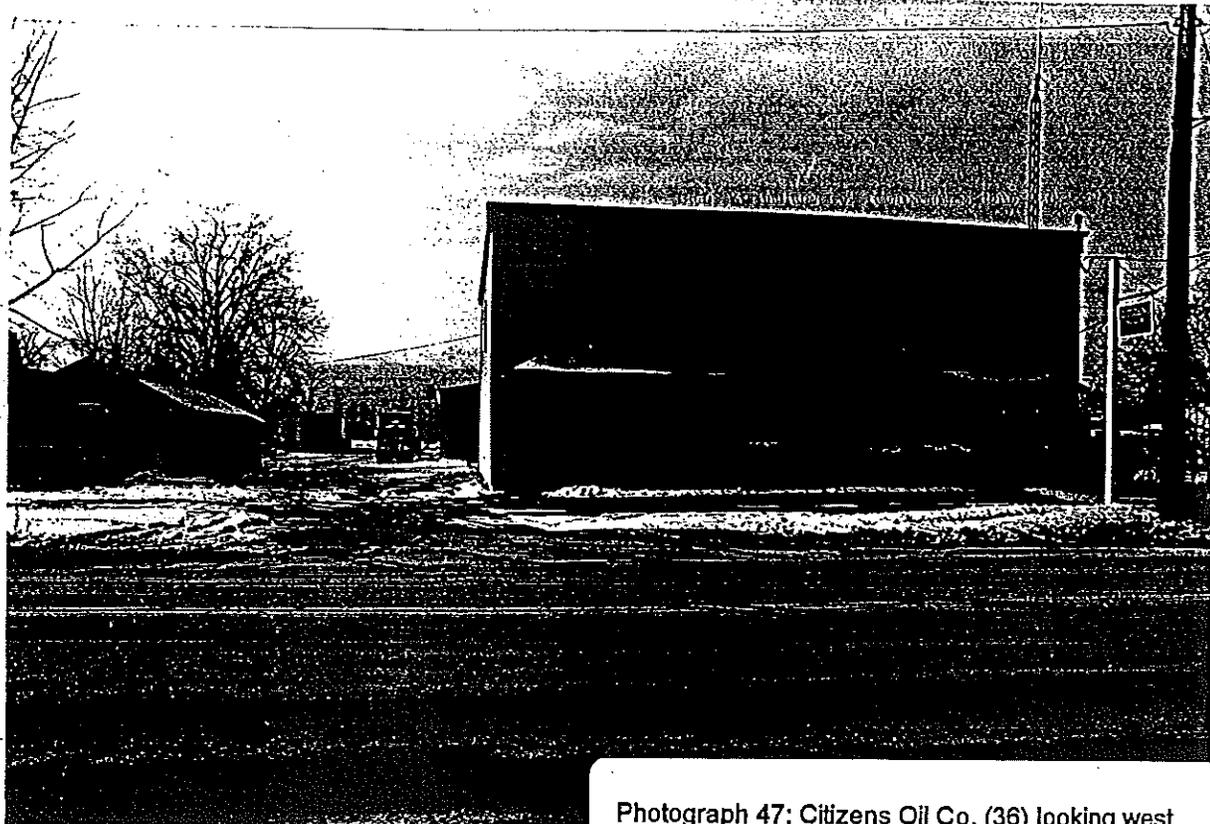
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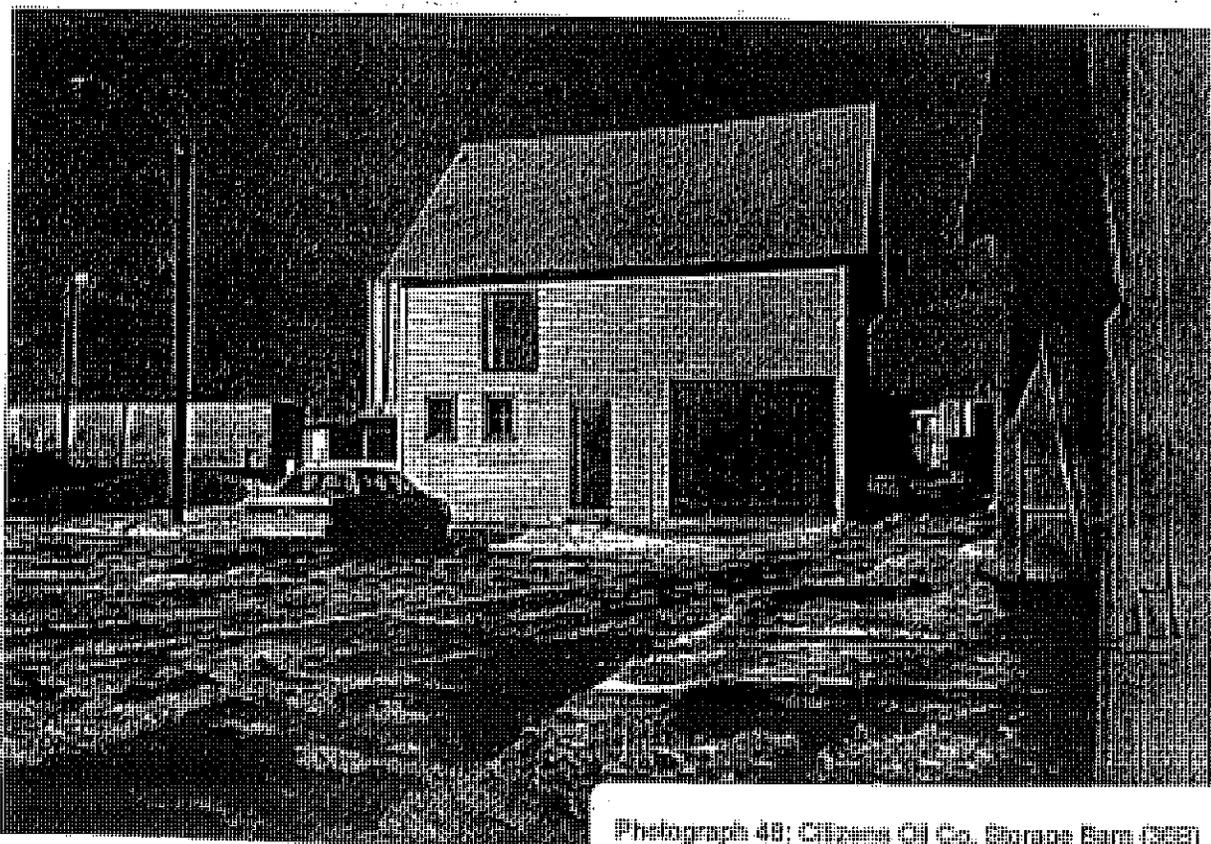
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Photograph 47: Citizens Oil Co. (36) looking west

ЛИТЕ ИО:



Photograph 48: Citizens Oil Co. Storage Barn (362)  
looking north

СТАМНИЦА

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STYLE NO. 57-4P

FILE NO.:



Photograph 49: Maltex Partnership (38) looking northwest

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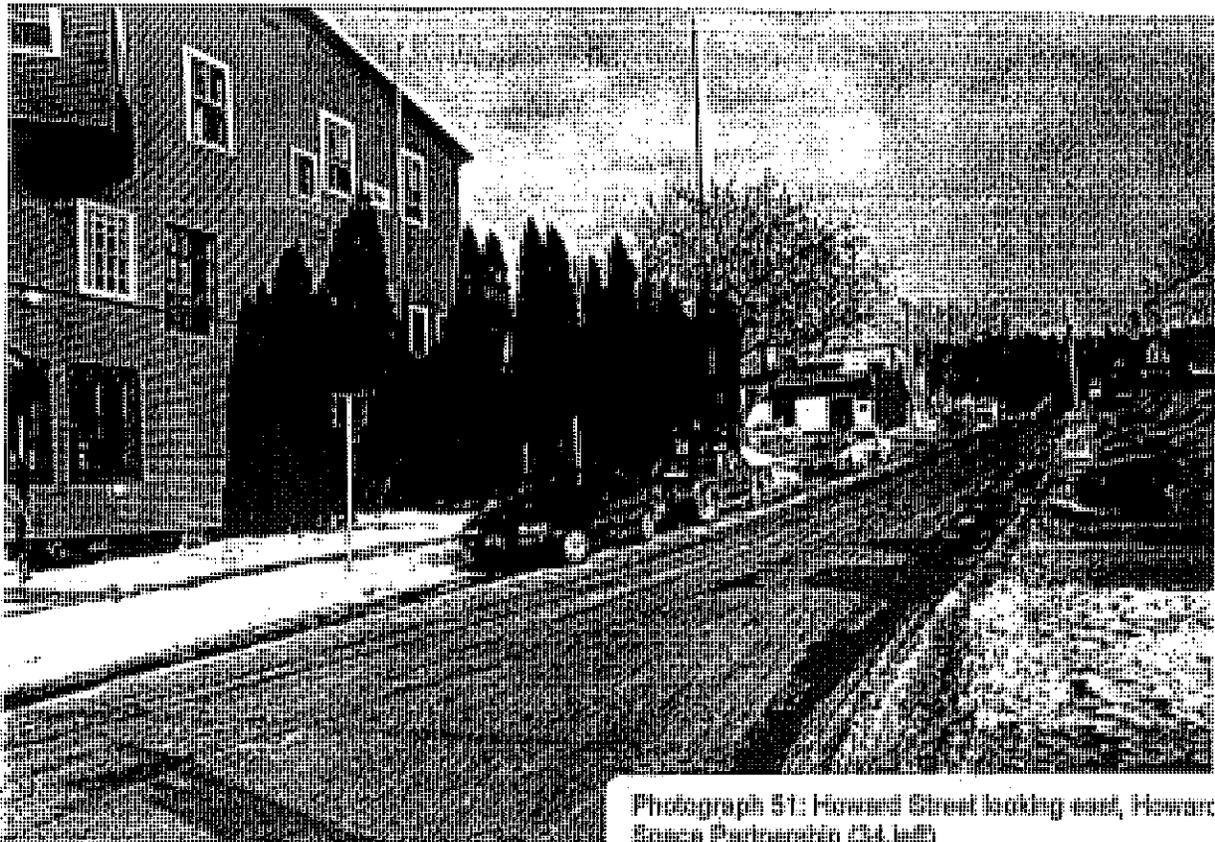
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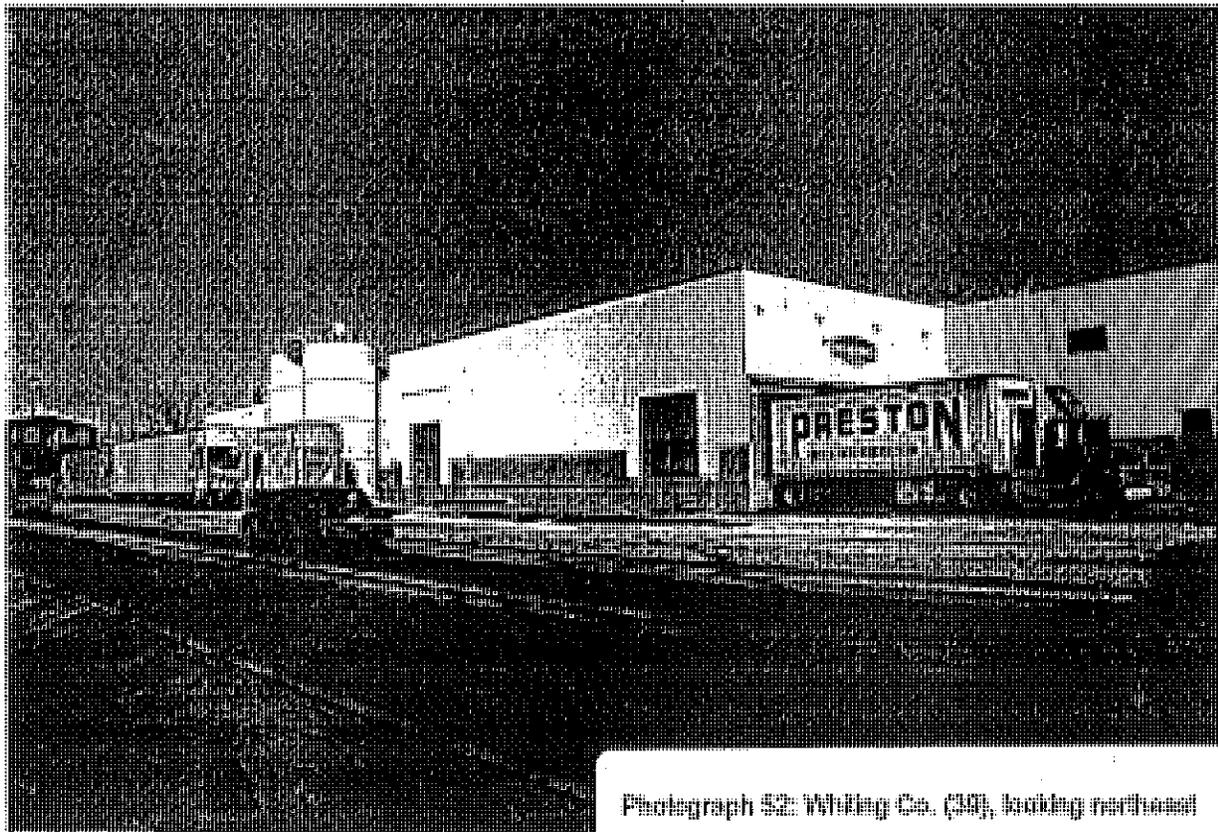
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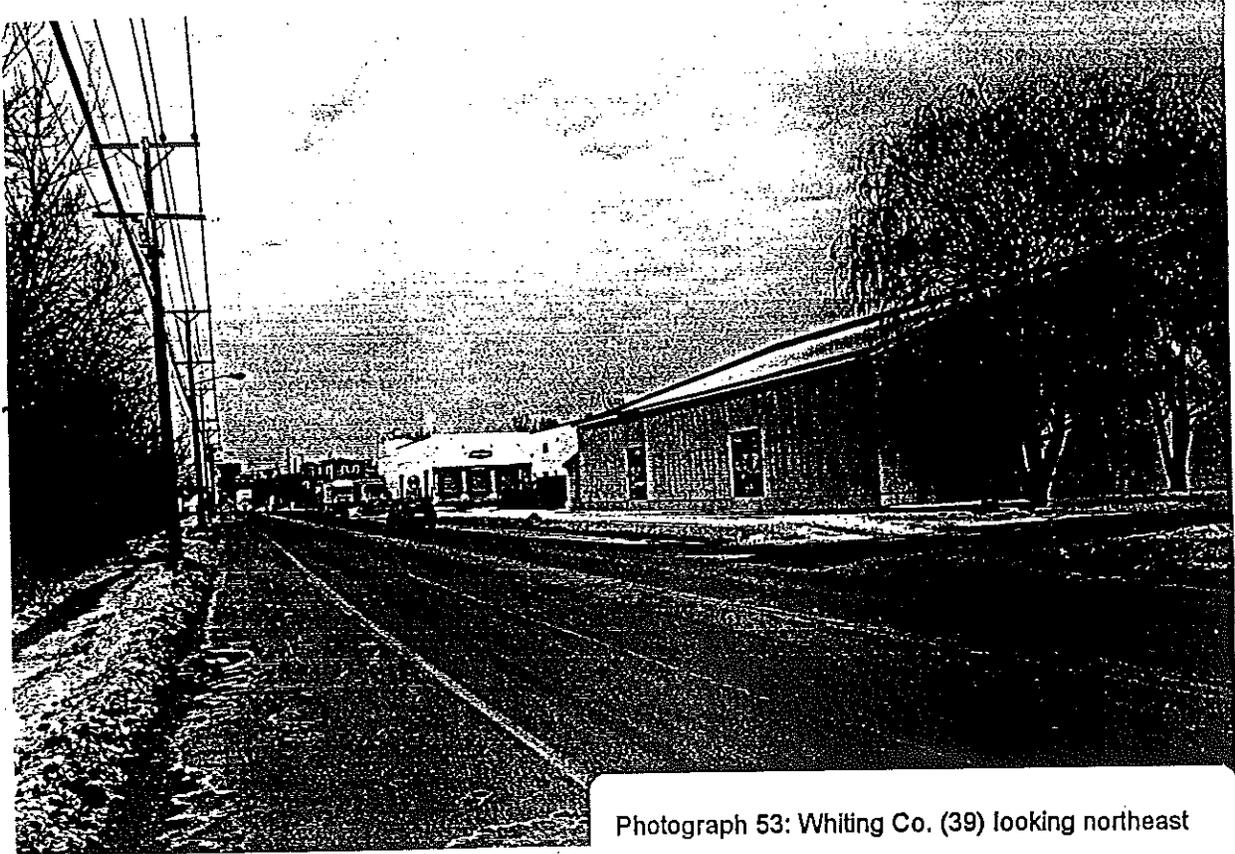
Photograph 50: Maltex Partnership (38) looking east



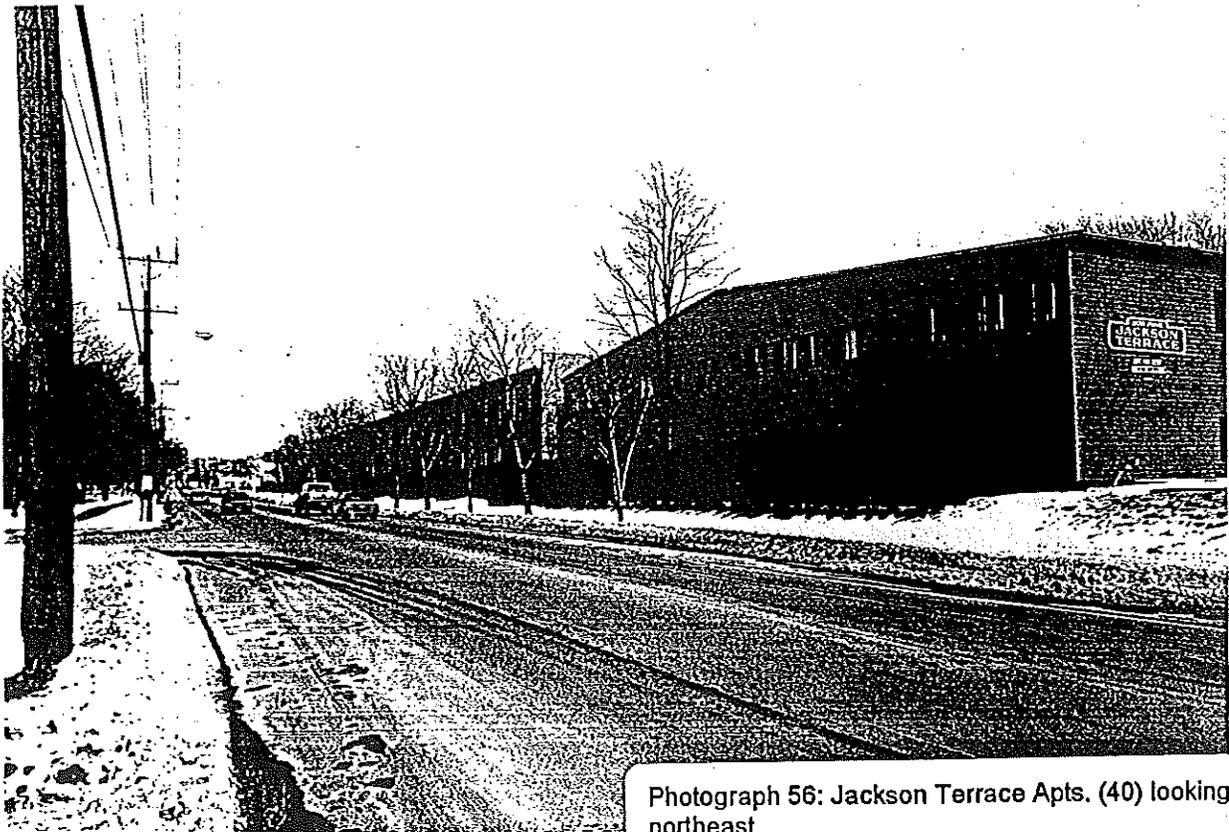
Photograph 51: Howard Street looking east, Howard Space Partnership (54, Jeff)



Photograph 52: Whiting Co. (39), looking northward



Photograph 53: Whiting Co. (39) looking northeast



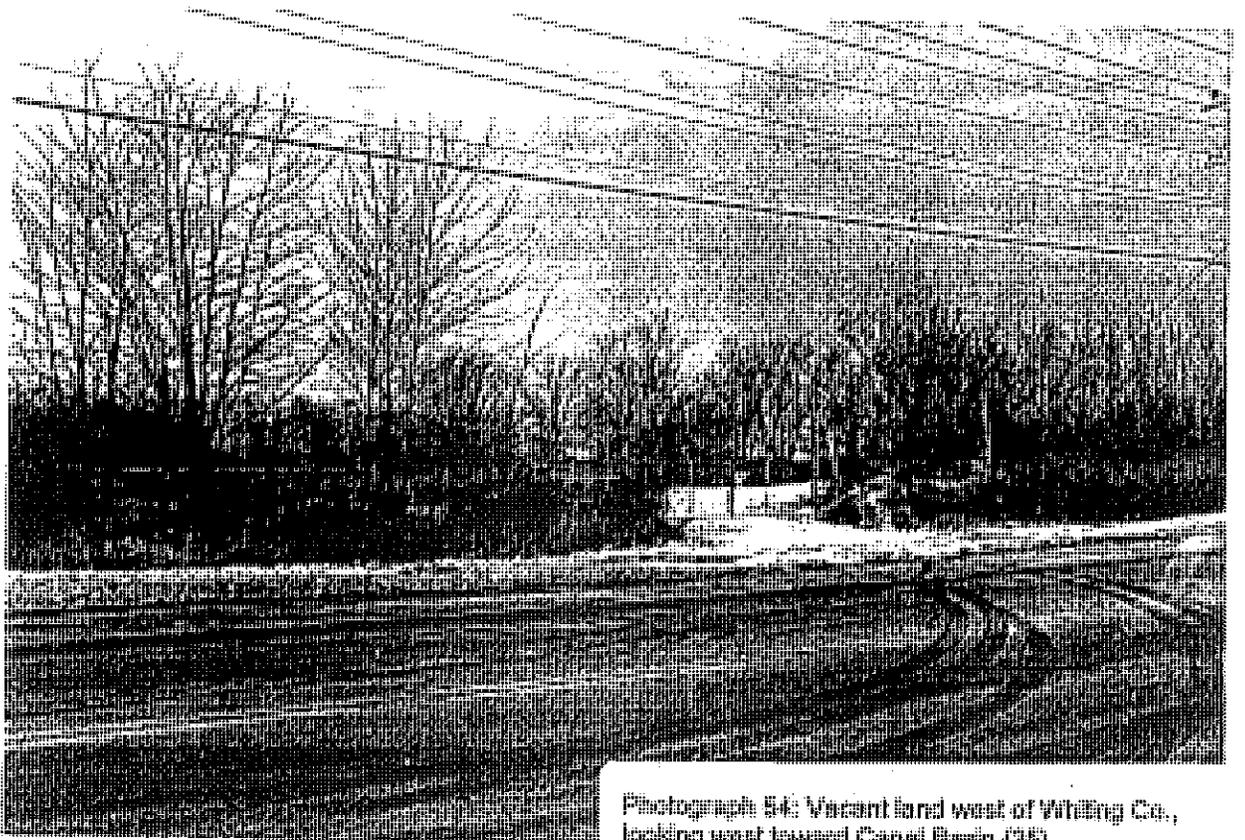
Photograph 56: Jackson Terrace Apts. (40) looking northeast

STYLE NO. 57-4P

FILE NO:



Photograph 55: Gatehouse lot, (37) looking north



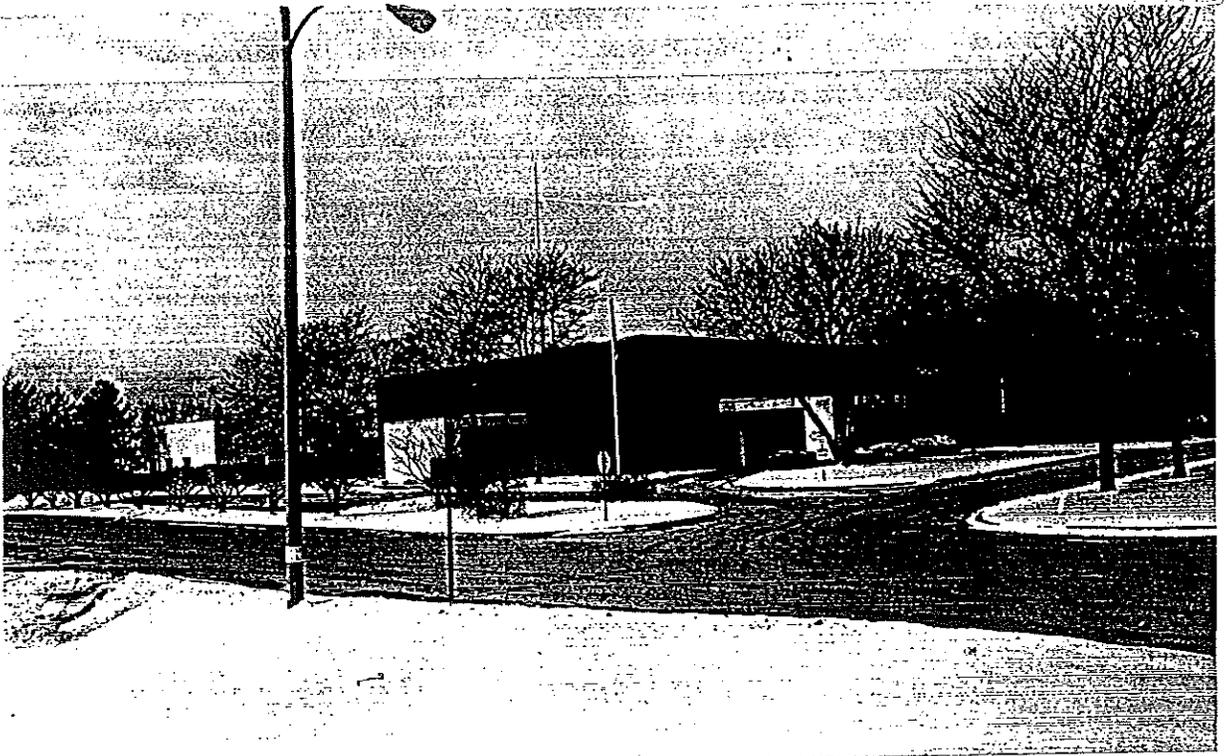
Photograph 54: Vacant land west of Whiting Co., looking west toward Canal Basin (35)

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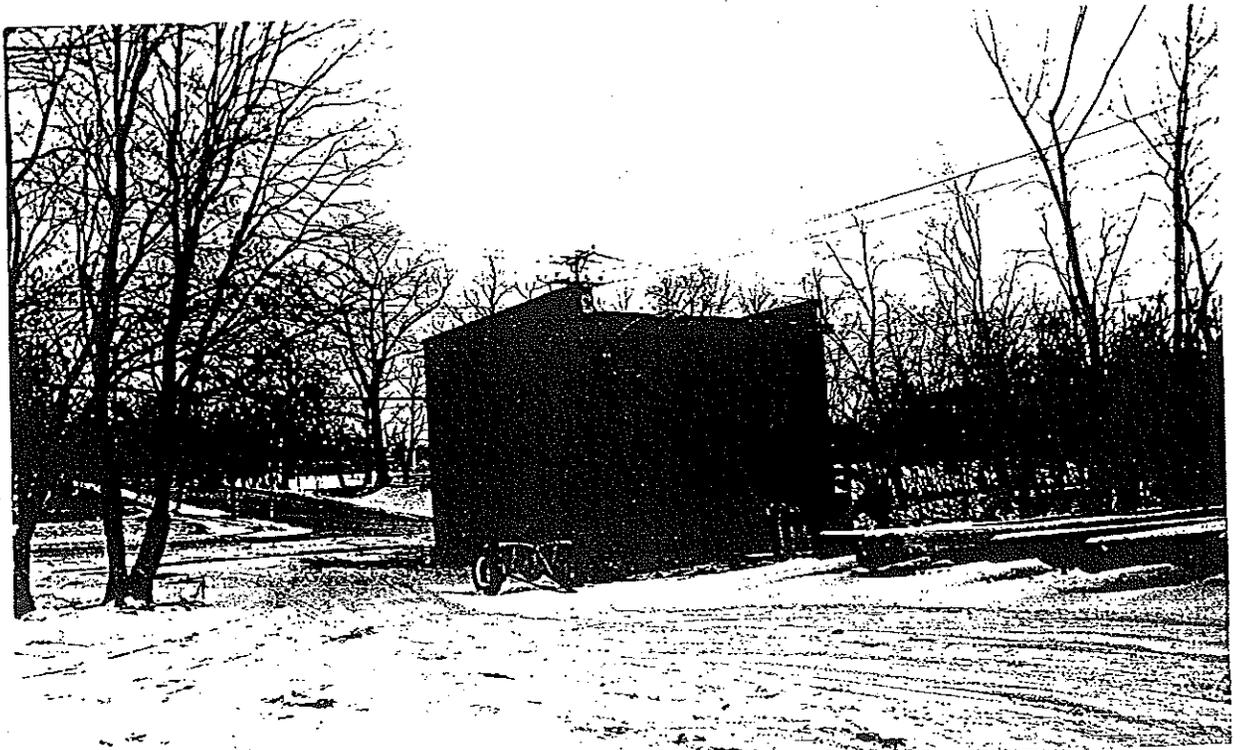
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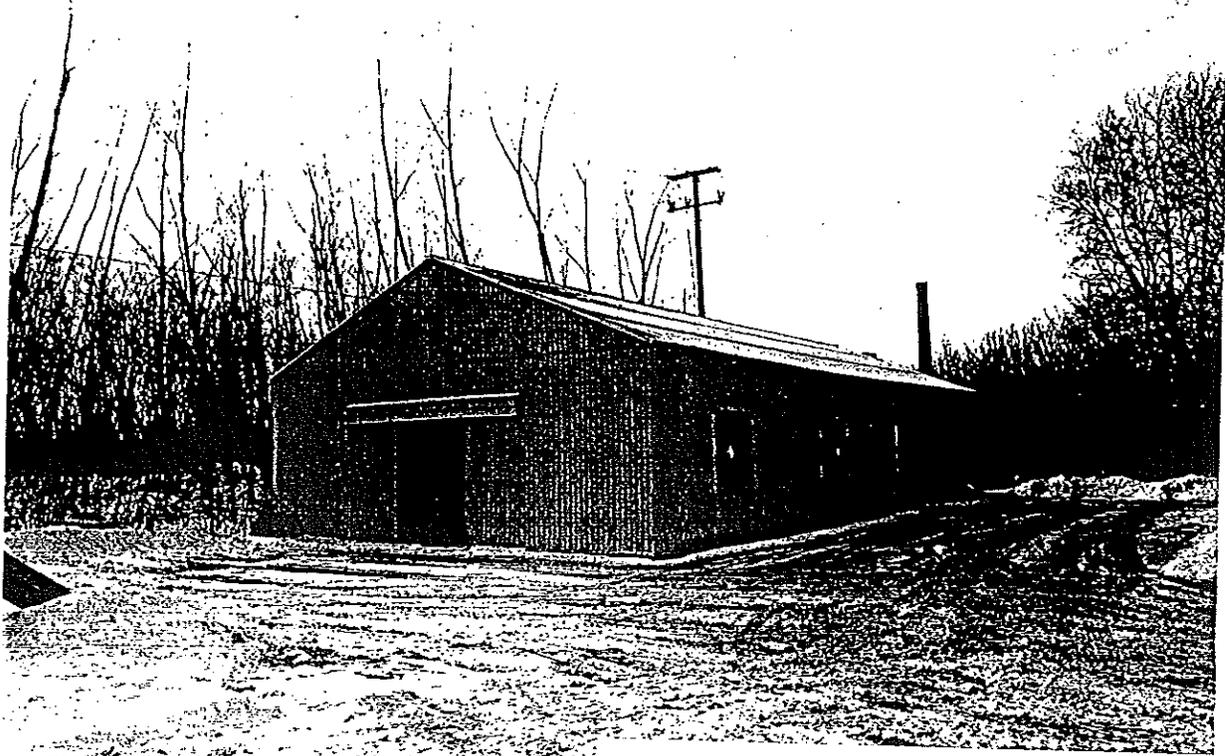
Lyntonville  
ARCHIVAL PRESERVERS



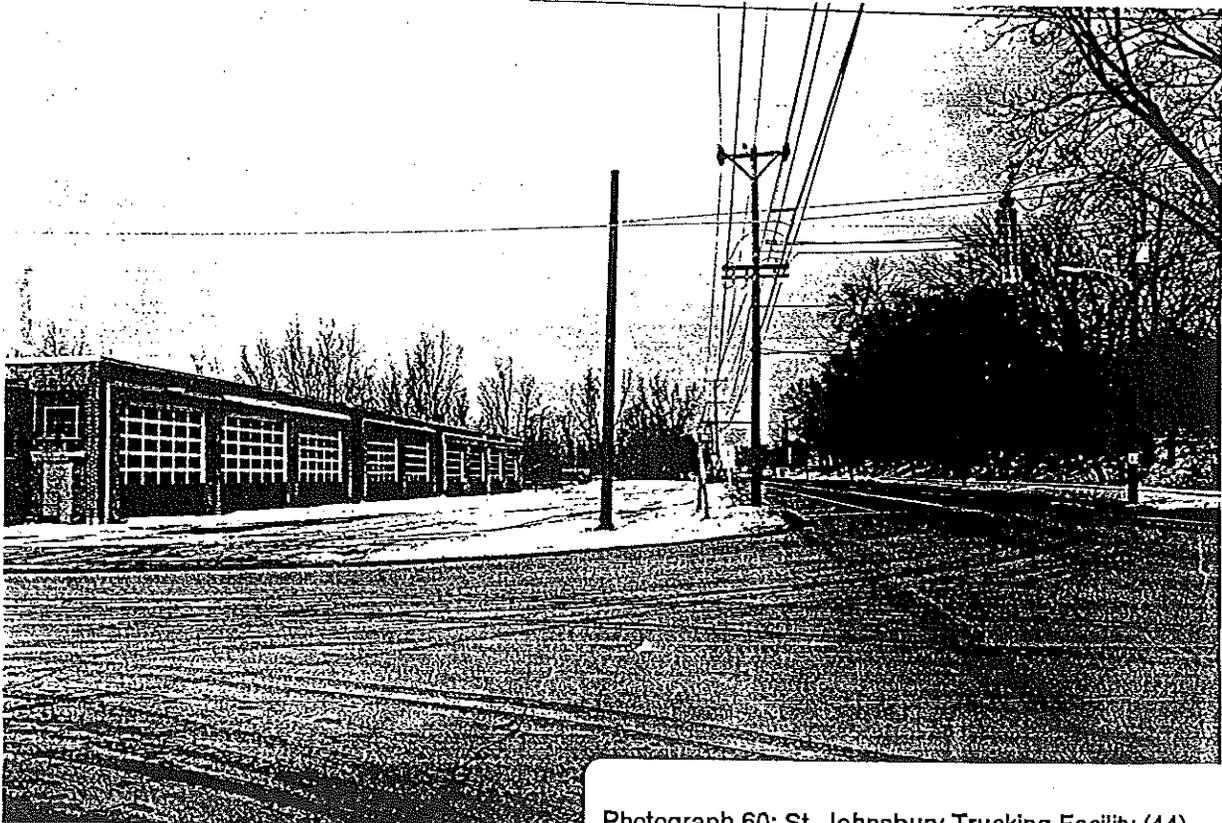
Photograph 57: City Electric Dept. Office building (42B) ,looking northwest



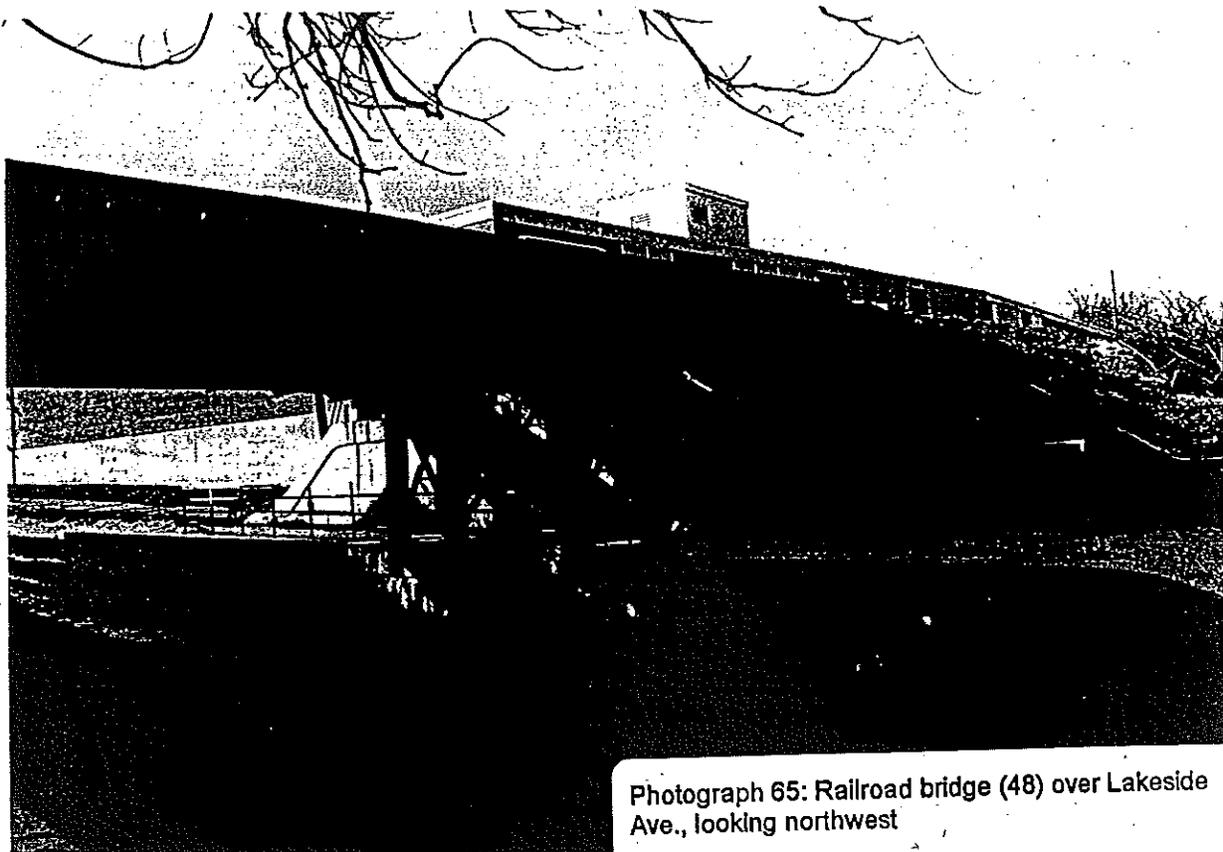
Photograph 58: Electrical substation (42) looking southeast toward South Park (43)



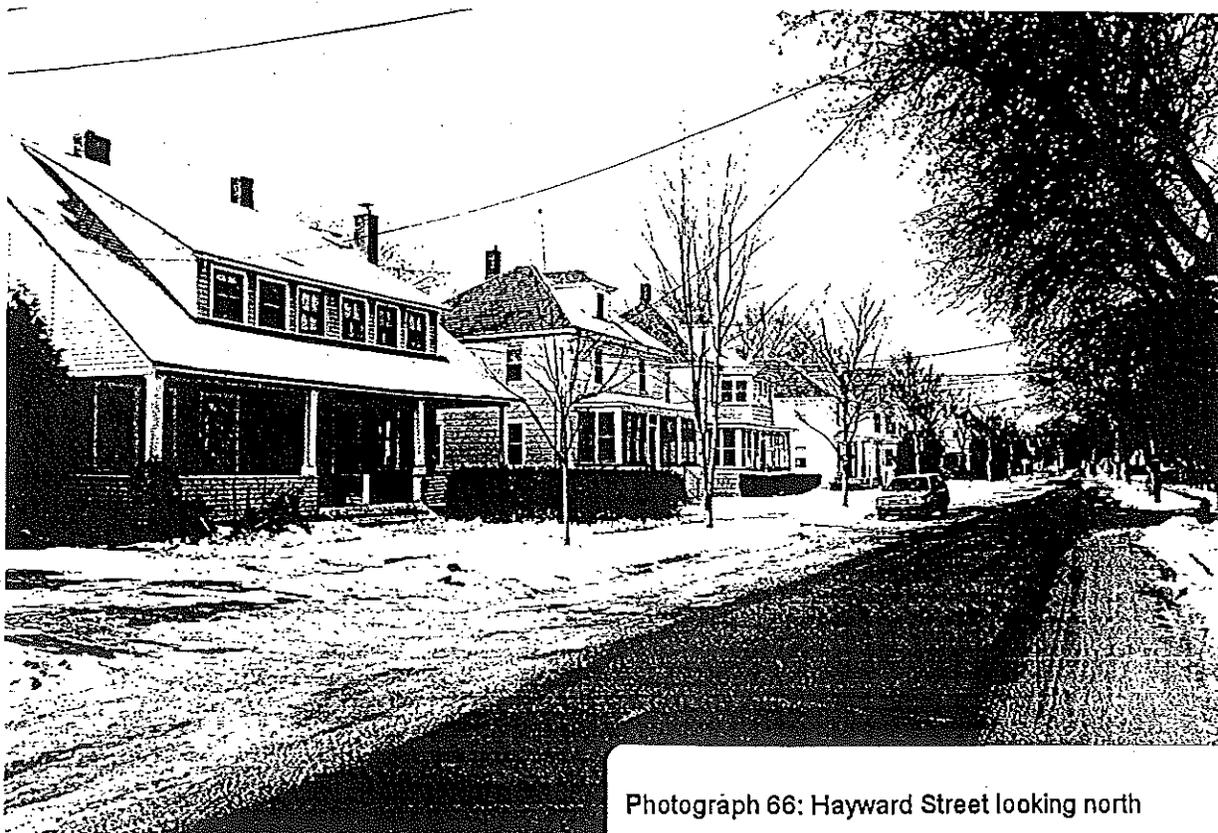
Photograph 59: Electric Dept. Shed (42A) looking southwest



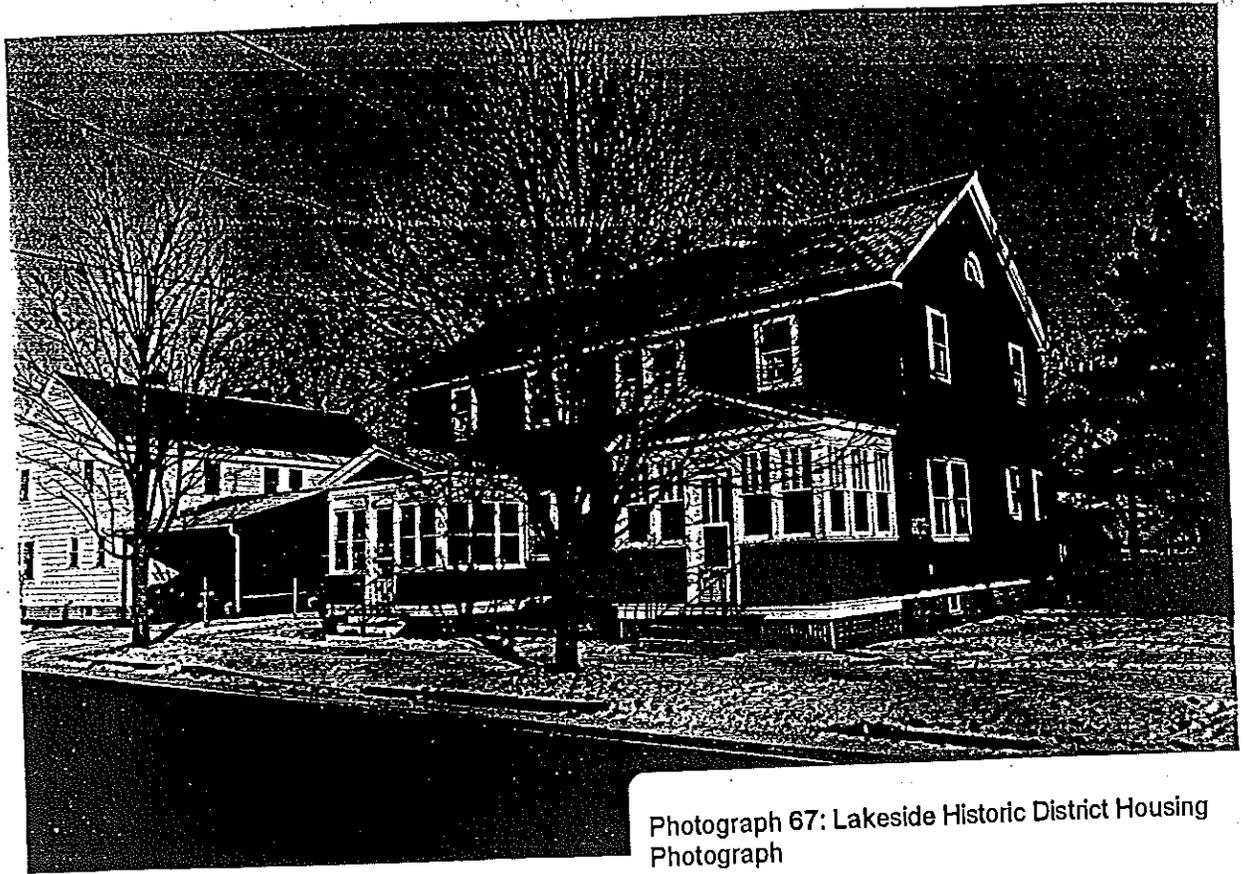
Photograph 60: St. Johnsbury Trucking Facility (44), looking north along Pine St.



Photograph 65: Railroad bridge (48) over Lakeside Ave., looking northwest

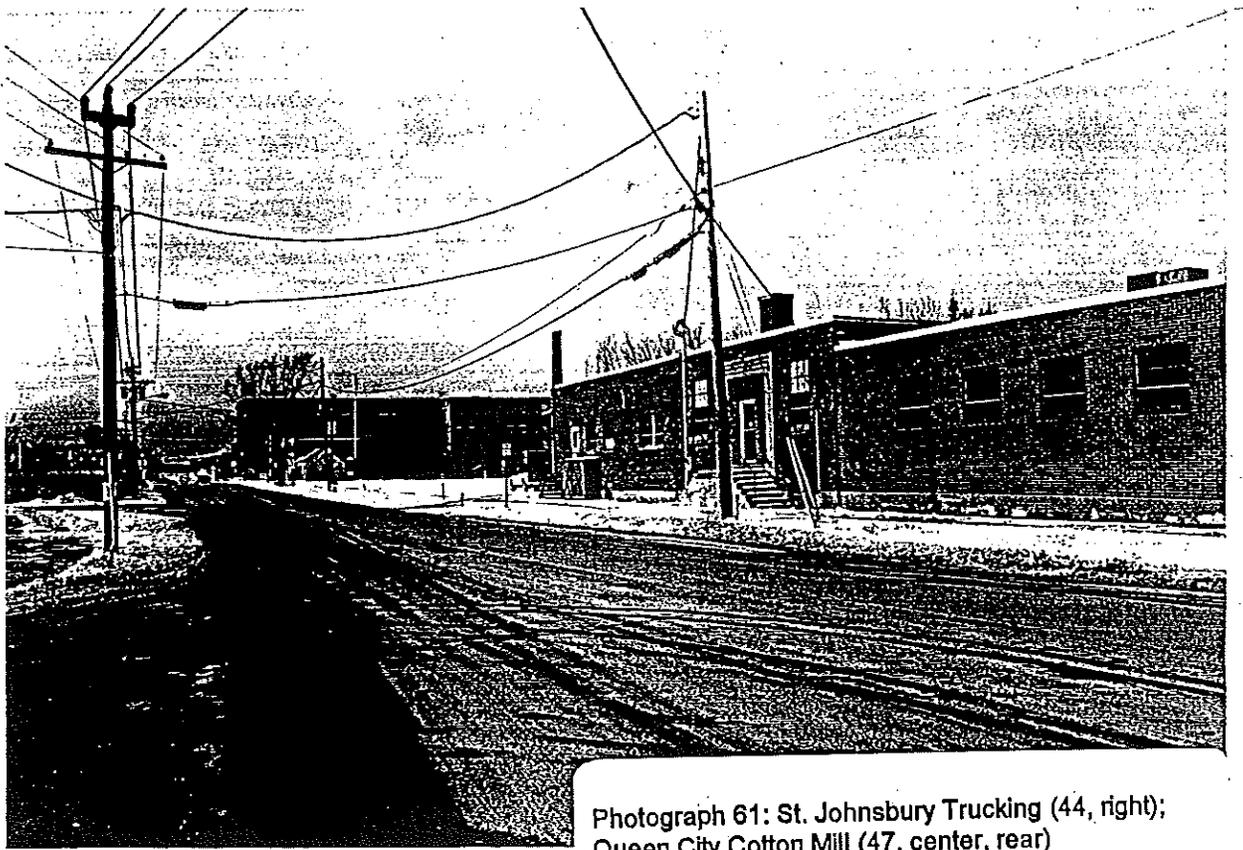


Photograph 66: Hayward Street looking north



Photograph 67: Lakeside Historic District Housing  
Photograph

FILE NO:



Photograph 61: St. Johnsbury Trucking (44, right);  
Queen City Cotton Mill (47, center, rear)

ASSIGNMENT:



Photograph 62: Blodgetts/ Cloverleaf Properties (45)



Photograph 63: Queen City Cotton Mill, (47) looking north



Photograph 64: Queen City Cotton Mill (47) looking northwest, rear ell

Photograph 43: 1-5 Pine Place (32) looking southeast

Photograph 44: 7 Marble Ave, former Maple Co. (33), looking east, Marble Ave., left

Photograph 45: Howard Space Partnership, (34) looking northeast

Photograph 46: Howard Space Partnership (34) looking northeast

Photograph 47: Citizens Oil Co. (36) looking west

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Photograph 49: Maltex Partnership (38) looking northwest

Photograph 50: Maltex Partnership (38) looking north

Photograph 51: Howard Street looking east, Howard Space Partnership (34, left)

Photograph 52: Whiting Co. (39), looking northeast

Photograph 53: Whiting Co. (39) looking northeast

Photograph 54: Vacant land west of Whiting Co., looking west toward Canal Basin (35)

Photograph 55: Gatehouse lot, (37) looking north

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Photograph 57: City Electric Dept. Office building (42B) ,looking northwest

Photograph 58: Electrical substation (42) looking southeast toward South Park (43)

Photograph 59: Electric Dept. Shed (42A) looking southwest

Photograph 60: St. Johnsbury Trucking Facility (44), looking north along Pine St.

Photograph 61: St. Johnsbury Trucking (44, right); Queen City Cotton Mill (47, center, rear)

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Photograph 63: Queen City Cotton Mill, (47) looking north

Photograph 64: Queen City Cotton Mill (47) looking northwest, rear ell

Photograph 65: Railroad bridge (48) over Lakeside Ave., looking northwest

Photograph 66: Hayward Street looking north

Photograph 67: Lakeside Historic District Housing  
Photograph

Photograph 21: So. Champlain St. looking northwest to Desautels property (15)

Photograph 22: So. Champlain St. looking north from rail yard, former Nabisco building (16, center)

Photograph 23: Former Nabisco building (16) looking east, So. Champlain St.

Photograph 24: Vermont Spool and Bobbin Mill/housing (3), looking northeast on So. Champlain

Photograph 25: 109 Maple (9), 214, 218, 220, 224-226, 230 Pine St. (17, 18, 19, 21, 22, left to right)

Photograph 26: 219-221 Pine St., (left), looking northwest.

Photograph 27: New Bobbin Mill housing (left); 240 Pine St. (far right)

Photograph 28: Bullocks Standard Steam Laundry/ Am. Health Care (25)

Photograph 29: Former Granite shed (rebuilt), c. 1990 (25A)

Photograph 30: Dorn Bottling Works/Pine Square (left, 26); Venetian Blind Co./ Conant Custom Brass (27)

Photograph 31: Pine St. looking northwest, Gregory Supply (28), (Shed A in foreground left),

Photograph 32: Gregory Supply, Shed B (left), Shed A (right)

Photograph 33: Kilburn Street, Kilburn and Gates, (29, right)

Photograph 34: Pine Street looking northeast, Kilburn and Gates, (29 right)

Photograph 35: Pine Street looking northeast, Kilburn and Gates (29, left); Hulbert Supply (31, right)

Photograph 36: Pine Street, looking southwest, Burlington Street Dept. (30, center and right)

Photograph 37: Burlington Street Dept. (30), looking west from Pine St.

Photograph 38: Burlington Street Dept. (30), looking south; note rail siding in foreground

Photograph 39: Looking northwest from western side of Pine St. along historic rail corridor; Gregory Supply shed B, (left); Gregeory Supply main building, (right), Shed A, (far right)

Photograph 40: Looking southeast down rail corridor through Gregory Supply (28) property

Photograph 41: Looking southeast toward Gregory Supply (28); Shed B (right), Gregory Supply (left)

Photograph 42: Looking southeast from rail yard, Desautels (15, far left); Nabisco (16, left)

733, VT-CH-734, VT-CH-735 & VT-CH-736), and only one, the Rutland and Burlington Rail Site (VT-CH-736), was recommend to the National Register of Historic Places. It consists of the earliest railroad roundtable and engine house in Burlington dating to 1851-1917 and is preserved under fill in the existing rail yard today. It is approximately located 115-feet north of the existing salt shed and about 50-feet east of a weight scale and diesel fuel pumps which may be in the impact area of this project.

- An Archaeological Resource Assessment was conducted by the University of Maine at Farmington (May 2004) to identify archaeological resources in the area designated for potential rail yard mitigation.
- VTrans' Historic Preservation Officer assessed the C-6 Section for Build Alternative 2 for historic resources (November 2005).

A more detailed explanation of the historic and archaeological resources is presented below.

**3.7.2 Historic Structures and Districts**

A report has been prepared documenting the Historic Districts, including photographs, the history of the area, and an evaluation of the eligibility of the Pine Street and Queen City Cotton Mill Districts. The SHPO, VTrans and FHWA have determined that these two Districts are eligible to be listed in the National Register of Historic Places. A summary of the Cultural Resource Surveys completed for the Southern Connector/Champlain Parkway project has also been completed (Refer to Appendix 5).

A summary of the existing and eligible Historic Districts in the area are listed below:

- National Register Listed Historic Districts (refer to Figure 3-11):
  - Battery Street Historic District
  - Lakeside Historic District
- National Register Eligible Historic Districts (refer to Figure 3-11):
  - Pine Street Historic District
  - Queen City Cotton Mill Historic District

### 3.7.2.1 Battery Street Historic District

This National Register District, formerly called the Battery Street Neighborhood Historic District, and renamed by the National Park Service, was approved for listing in the National Register on November 2, 1977. This District embodies Burlington's earliest settlement which evolved from 1790 to the present. The District was extended on June 28, 1984, to include 126 structures dating from the 19th and early 20th century structures in the residential area known as the "South End". The architecture of the majority of these buildings has not been substantially altered, thus the period of historic, social and economic development is well represented in the area. The street network and water-related transportation facilities are essentially unchanged in location.

The southern boundary of the Battery Street Historic District is shown on Figure 3-12, as points B through L. Buildings within the boundaries at this location are predominately industrial and commercial, facing onto Maple Street from Battery Street to South Champlain Street. The Bobbin Mill located at 235 Pine Street bordering Champlain Street is a dominant feature in this Historic District and is located on the border between the Battery Street Historic District and the Pine Street Historic District (Figure 3-12, Building 125).

A summary of the existing and eligible historic properties in the area are listed below:

- National Register Eligible Contributing Structures Within the Battery Street Historic District
  - 39 Maple Street (Atkinson)
  - 47 Maple Street (Holbrook Grocery Co.)
  - 57 Maple Street (Blodgett Co.)
  - 234 South Champlain Street (Vermont Spool and Bobbin Mill)
  - 75 Maple Street (Arbuckle Building)
  - 81 Maple Street (Triarch, Inc.)
  - 89 Maple Street (Hunt)
  - 93 Maple Street (Hunt)
  - 103 Maple Street (Robin DM Enterprises)

### 3.7.2.2 The Pine Street Historic District

This Historic District comprises an area along the Pine Street corridor that historically was defined by the lumber industry in Burlington from the end of the Civil War to around 1900, when Burlington ranked third in the nation for lumber production (refer to Figure 3-13). After the Civil War, commercial activity shifted somewhat from the busy corner by South Wharf at Maple Street and Battery Street, to the rail yards, canal basin and lumber yards in the newly emerging corridor along Pine Street, south of Maple Street to Howard Street. Planing mills, bobbin mills, a venetian blind factory, and a furniture factory were all established along Pine Street during the late 19th century. After the turn of the century, and the downturn of the lumber industry, new businesses took over existing lumber yards and mills, and other establishments such as Malted Cereals and Whiting Brush; and the residential streets opened and housing emerged generally following the patterns of industrial development from north to south along Pine Street. From the 1870s, housing for employees was developed along Pine Place, Marble Avenue, and Howard Street as well as Hayward's Plan, an early development between Marble Avenue and Howard Street.

The boundaries of the Pine Street Historic District are largely defined by the area that prospered after the Civil War to around 1900. The northern boundary is coterminous with the southern boundary of the Battery Street Historic District; the western boundary is Lake Champlain; the southern boundary is coterminous with the southern property lines of the Maltex Partnership and the Canal Basin, and the properties along the south side of Howard Street, to the intersection with Locust Terrace (formerly Hayward Street). The District includes the rail lines south to Lakeside Avenue. The eastern boundary is defined by the properties that front the east side of Pine Street, as far south as Howard Street, extending to the east along both sides of Kilburn Street, Pine Place, and Marble Avenue to St. Paul Street; Locust Terrace (formerly Hayward Street), between Marble Avenue and Howard Street is also included in the District (Figure 3-13).

A summary of the existing and eligible historic properties in the area are listed below:

- Eligible Contributing Structures Within the Pine Street Historic District
  - LaValley Street, Rutland Railroad/State of Vermont and VTR Roundhouse
  - 237-241 South Champlain Street (Champlain Valley Fruit Co.)
  - 266 South Champlain Street (Nabisco)

- 218 Pine Street (Beloit)
- 220 Pine Street (Garrecht)
- 219-221 Pine Street (Burlington Community Land Trust)
- 230 Pine Street (Gero)
- 234 Pine Street (Gero)
- 240 Pine Street (Santo)
- 257-277 Pine Street (Bullocks Standard Steam Laundry)
- 270 Pine Street (Burlington Venetian Blind Co.)
- 308-310 Pine Street (Kilburn and Gates)
- 339 Pine Street (Burlington Street Department)
- 1 Pine Place (Strong)
- 7 Marble Avenue (Welsh Brothers Maple Co.)
- 364 Pine Street (Whiting Co.)
- Pine Street Barge Canal Basin
- 377 Pine Street (Citizens Coal Co.)
- 431 Pine Street (Maltex Partnership)

### 3.7.2.5 Individual Structures

Two additional structures within the study area are eligible for the National Register of Historic Places, but are not located within a historic district (refer to Figure 3-16).

- Eligible Structures

- 100 Main Street (Champlain Motor Company Showroom)
- 101 Main Street (Opry)

The Champlain Motor Company Showroom is located in the northeastern corner of the Pine Street and Main Street intersection. This structure is a 20th century commercial style two-story structure. This building was one of the first structures in the City of Burlington built expressly to handle the new and lucrative automobile trade of the 1920's. It is part of a complex of buildings known as the Wells-Richardson Complex.

The Opry is located in the southeastern corner of the Pine Street and Main Street intersection. This two-story stone building constructed in 1904 was originally an armory.

### 3.7.3 Archaeological Resources

Archaeological investigations within the study area have been comprised of detailed research on the prehistoric and historic settlement patterns in the area. Research efforts include the entire project corridor from the C-1 Section to the CCD. The area is highly industrialized, and has been for at least 150 years. A hazardous waste Superfund Site has been documented in and surrounding the Pine Street Barge Canal Basin and slips. Therefore, archaeological test excavations at this site have been limited due to the potential presence of waste, and the risks associated with the waste. Archaeological testing continues to proceed in concert with the hazardous waste study.

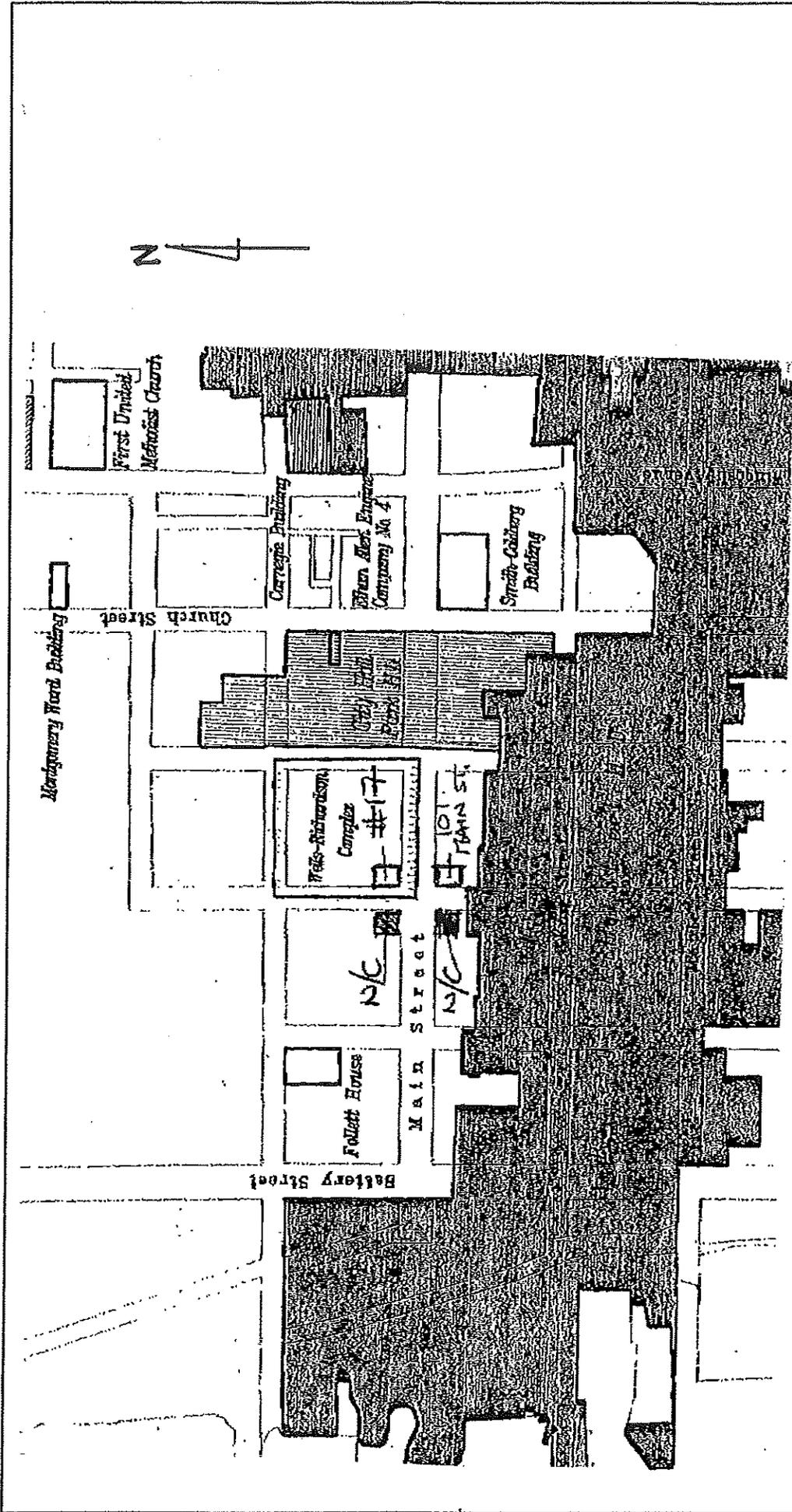
Historic research and excavations in other parts of Burlington and Lake Champlain have identified a number of historic episodes of filling in swamp and marsh areas to provide for better access for shipping and use of the lake. The shoreline is assumed to have been at several different locations (from east to west) since Burlington was first settled. There is a possibility that prehistoric sites and historic sites may be buried under fill in the area between Pine Street and Battery Street (i.e., along the proposed Battery Street Extension corridor, refer to Figure 3-13).

Southern Connector/  
Champlain Parkway  
MEGC-M5000(1)

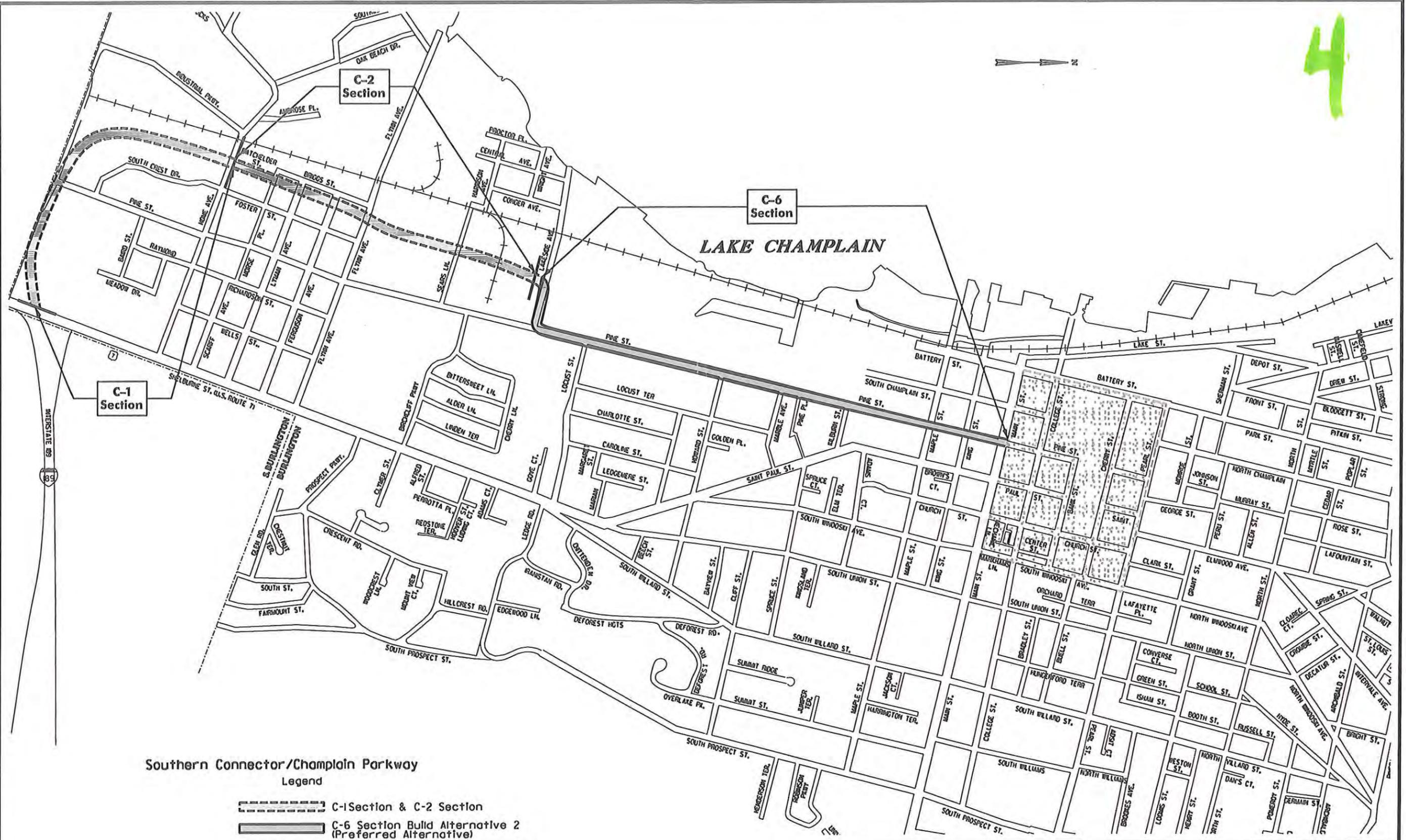


CLOUGH HARBOUR & ASSOCIATES LP  
10 Winward Circle, PO Box 296, Albany, NY 12202  
www.cloughharbour.com

FIGURE 3-16  
ELIGIBLE STRUCTURES

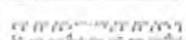


4



**Southern Connector/Champlain Parkway**

**Legend**

-  C-1 Section & C-2 Section
-  C-6 Section Build Alternative 2 (Preferred Alternative)
-  Burlington City Center District (CCD)

Scale: 1"=1000'

FILE NAME: H:\WORK\PROJECTS\MEGC-M5000(1)\Fig ES-4.dwg DATE PLOTTED: 11/14/2008 USER: JLR

**Southern Connector /Champlain Parkway MEGC-M5000(1)**



Clough Harbour & Associates LLP  
111 Winners Circle, PO Box 5269, Albany, NY 12205  
www.cloughharbour.com

**FIGURE ES-4**  
**BUILD ALTERNATIVE 2**  
**PREFERRED ALTERNATIVE**



## CHAMPLAIN PARKWAY / SOUTHERN CONNECTOR

### Section 4(f) Analysis

08/28/07

6

**4(f) Regulations:** The Excerpt below contains the basic DOT ACT 4(f) regulation: i.e. that for a FHWA-funded project to “use” a historic property (by taking or adverse affect) there must be no feasible and prudent alternative to that use.

Section 4(f) Sec. 771.135 Section 4(f) (49 U.S.C. 303).

(a) (i) *The Administration may not approve the use of land from a significant publicly owned public park, recreation area, or wildlife and waterfowl refuge, or any significant historic site unless a determination is made that:*

(i) *There is no feasible and prudent alternative to the use of land from the property; and*

(ii) *The action includes all possible planning to minimize harm to the property resulting from such use.*

(2) *Supporting information must demonstrate that there are unique problems or unusual factors involved in the use of alternatives that avoid these properties or that the cost, social, economic, and environmental impacts, or community disruption resulting from such alternatives reach extraordinary magnitudes.*

**Result of 4(f) Regulations on Champlain Parkway:** The result of the application of Section 4(f) in this case is that Alternative 1, which bisects the Pine Street Historic District<sup>1</sup> and adversely affects historic properties can not be selected, because there is a prudent and feasible Alternative 2, which upgrades Pine Street, and does not adversely affect historic properties.

**Background:** Alternatives 1 and 2 both pass through the Pine Street Historic District, and the Battery Street Historic District as shown on the attached map. Alternative 1 “bisects” the Pine Street District, introducing a new roadway alignment as shown. Alternative 2 simply upgrades Pine Street to accommodate additional traffic.

Alternative 1 was determined to have an **adverse effect**<sup>2</sup> under Section 106 on the Pine Street Historic District because it would: build a new roadway through the middle of the district and divide the district into two separate sections, introduce a new transportation corridor where none was previously creating a substantial change of use, cause the removal of a protected historic railroad siding, and substantially alter the visual character of this National Register listed District. The VTrans and State Historic Preservation Officers jointly made this preliminary determination of effect.

---

<sup>1</sup> The Battery Street Historic District was listed in the National Register in 1977 and amended in 1984. The Pine Street District, considered “eligible” for the National Register and still protected by Section 106 and Section 4(f), was developed as part of scoping for the Champlain Parkway project in 1996 by Liz Pritchett Associates.

<sup>2</sup> A determination of adverse effect is made following criteria set out in 36CFR 800. A finding of adverse effect generally means a historic property is being “used” under Section 4(f), and therefore this alternative cannot be selected if there is a prudent and feasible alternative that does not use a historic property or has de minimis impacts.

Alternative 2 was determined to have **No Adverse Effect** on Historic Properties and therefore de minimis effects<sup>3</sup> under Section 4(f). This alternative upgrades Pine Street with intersection improvements, traffic signals, slight widening, and associated traffic control elements. This alternative was determined not to cause impairment to the historic properties fronting Pine Street in the historic district when compared to existing conditions. Noise levels, level of service, projected traffic on Pine Street, and traffic patterns on side streets were all evaluated in the DEIS and fall within acceptable limits. The VTrans and State Historic Preservation Officers jointly made this preliminary determination of effect.

Alternative Selection:

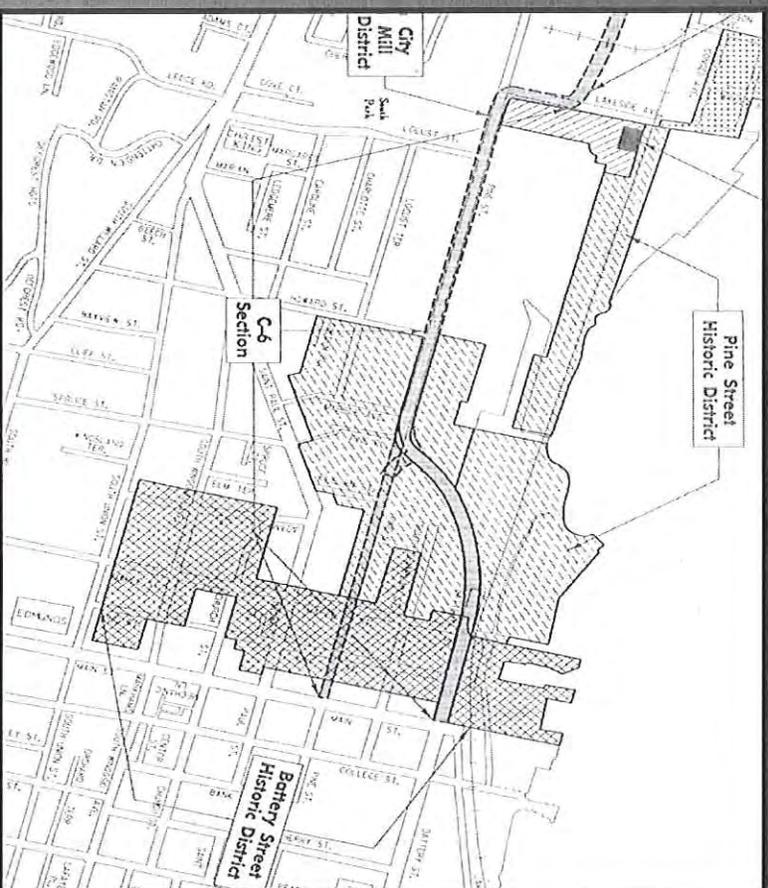
- Alternative 1 has an adverse effect under Section 106, and therefore has a “use” under Section 4(f).
- Alternative 2 does not adversely affect historic properties under Section 106 and therefore has “de minimis” impacts under Section 4(f).
- When comparing these two alternatives, Section 4(f) mandates the selection of Alternative 2. Note that there is no public input component in the Section 4(f) process – the decision is based purely on impacts and the alternatives analysis.

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<sup>3</sup> A No Adverse Effect under Section 106 enables a finding of de minimis impacts under Section 4(f), meaning no alternatives analysis under Section 4(f) is required. By contrast, an Adverse Effect Finding under Section 106 which qualifies as a use under Section 4(f), means an alternatives analysis must be conducted. In the case of the Champlain Parkway, Alternative 1 has an Adverse Affect and requires the alternatives analysis which requires Alternative 2 be selected.

# Project History

- 1979: First EIS identifies 4-lane road through Barge Canal site as selected alternative.
- 1997 NEPA-ROD: To avoid Barge Canal site, interim 2-lane alignment up Pine Street from Lakeside, 2-lane through Railyard @ BSDB to Battery Street is selected. Ultimate build out is still 4-lane road.
- 1998 – 2006: VTTrans turns project management over to City of Burlington. Alignment through Barge Canal is abandoned. City reduces build out to 2 lanes; City of Burlington (Council Resolution Nov, 2006), FHWA, VTTrans, endorse Pine Street improvements as preferred alternative
- 2007 City questions preferred alternative from 2006 DSEIS; questions Section 106 and section 4(f) determinations that support it.



# The Trigger...

If you're spending Fed or  
State \$ and your project  
impacts anything "old" ....

...you'll need a review

## National Register of Historic Places

- National collection of historic properties (sites, objects, structures, districts) considered worthy of preservation
- Property must be 50+ years old, and retain “integrity”
- Includes historic and archaeological properties
- Listed and eligible properties are protected

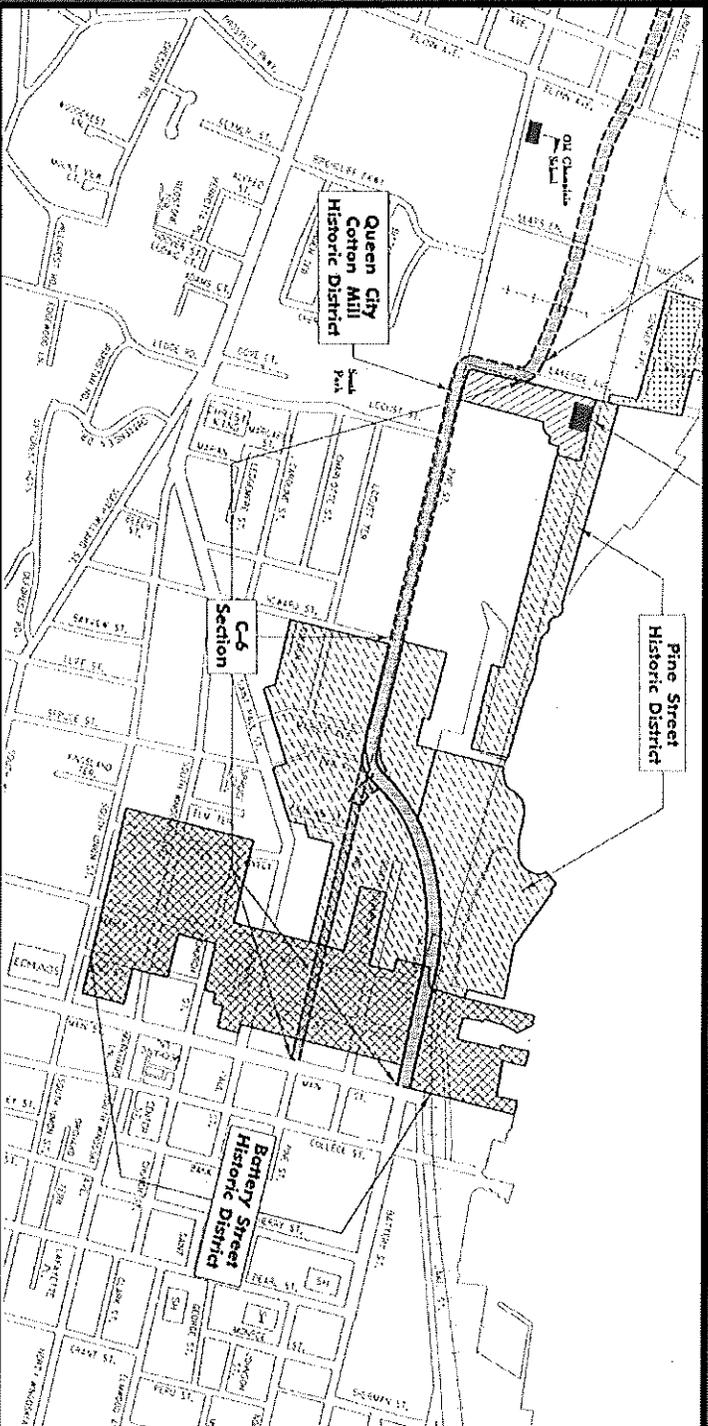
# HP Regulatory Framework (1)

- Section 106: NHPA 1966
- Fed Agencies must consider impacts of their projects on Historic Properties.
  - Avoid - Minimize - Mitigate (listed and eligible)
  - Consultative Law - Substantial Public Input Component

# HP Regulatory Framework (2)

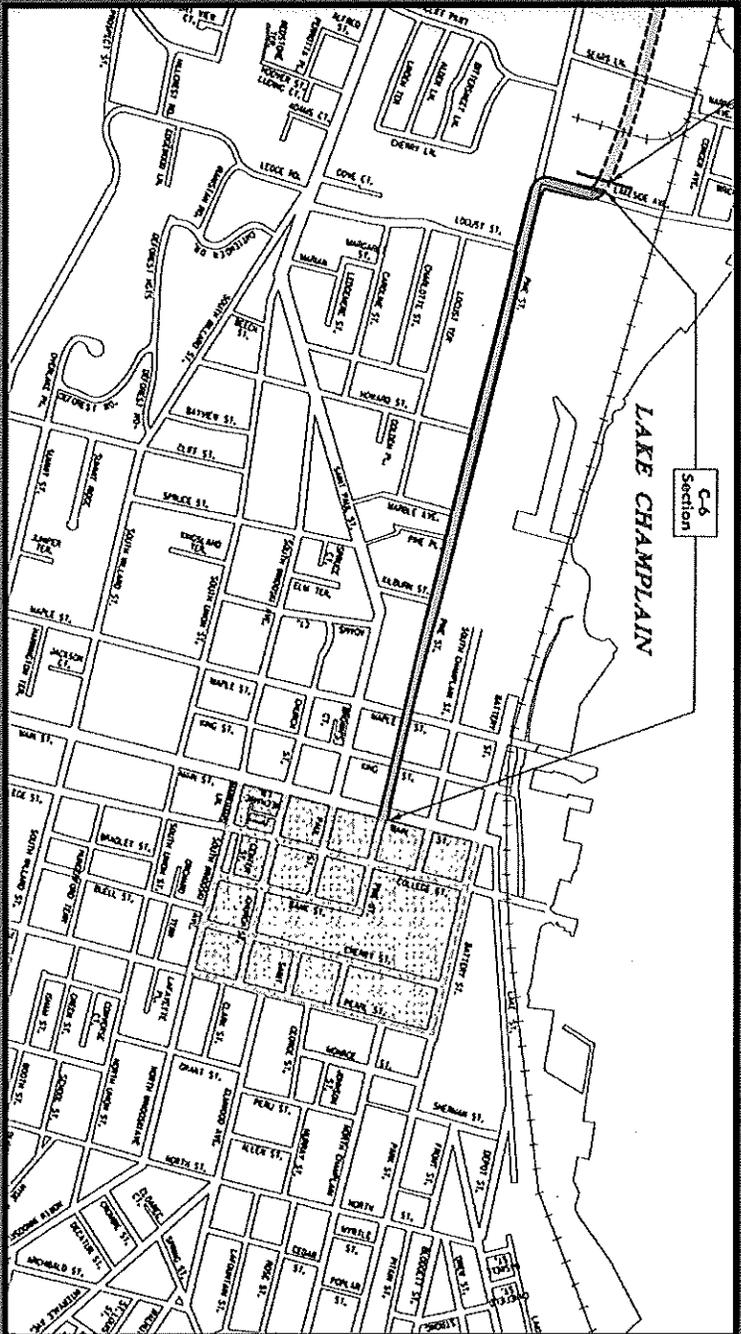
- Section 4(f): DOT 1966
- FHWA may participate in a project that “uses” a historic property, but only if there are no feasible and prudent alternatives. (Amended 2005)
  - *Substantive Law - Minimal Public Input component*
- <http://environment.fhwa.dot.gov/noidev/4fpolicy.aspx#4>  
or keyword “Section 4(f) policy paper”

buildings immediately adjacent to this property will be altered. This alternative will alter the viewshed within the Historic District, as it requires placing a roadway across an industrial/commercial property that was not previously used as a roadway transportation corridor. The viewshed of the historic buildings surrounding this property will be altered. A gap will be created within the Historic District, between historic buildings. There will be no substantive noise or air quality impacts. Build Alternative 1 has been determined through consultation among VTrans, SHPO, FHWA and the Advisory Council on Historic Preservation to be an Adverse Effect for the purposes of Section 106.



Under Build Alternative 2, the proposed C-6 Section consists of the improvements proposed on Pine Street include rehabilitation of the existing pavement within the limits of the existing roadway, construction of new sidewalks, adding traffic signals, pavement markings, curbing, landscaping. The Maltex Partnership driveway is not relocated under this alternative. Driveways into several properties located along Lakeside Avenue and Pine Street would be altered, but access would be maintained. The proposed roadway would be constructed at approximately the existing grade and would not create substantial increases in elevation. No other significant landscaping features are affected as a result of this change.

It is expected that the alterations of the lane configurations, changes in access, and other related improvements would not result in an adverse effect on the Pine Street Historic District.



# Champlain Parkway / Southern Connector

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## Contents

### Background Information

City of Burlington Summary Arguments Supporting Battery  
Street Extension Alternative as the Preferred Alternative

Draft VTrans Response to the City of Burlington

July 16, 2008

#### Background

Between (Date) and (Date), several letters were exchanged between the City of Burlington (the City) and both VTrans and FHWA regarding findings in the 2006 Southern Connector DSEIS. In its letters, the City pressed its case that the Battery Street Alternative should be the preferred alternative, despite having managed the development of the DSEIS that selected the Pine Street alignment as the preferred alternative. In its replies, both VTrans and FHWA supported the findings of the DSEIS and the Pine Street Alternative.

In its most recent letter dated (Date), the City requested a "dispute resolution meeting to resolve outstanding differences". In response, Secretary Lunderville offered to have VTrans staff members meet with the City to explain the findings in the DSEIS, particularly the Section 106 determinations and how they informed the Section 4(f) review. To this end, Paul Bruhn, Executive Director of the Preservation Trust of Vermont, was asked by the City to facilitate a series of meetings at the Echo Center.

Two meetings were held, on May 08 and June 19, 2008. At the first meeting, Scott Newman presented the historic preservation regulatory framework underpinning the selection of the Pine Street alternative. Secretary Lunderville then led the group on a site walk along both the Battery Street and Pine Street alignments. At the second meeting, David White and Mary O'Neil from the City gave a PowerPoint presentation detailing their objections to findings in the DSEIS on a variety of issues, as well as arguments supporting the Battery Street Extension alternative.

On July 02, 2008, the City's PowerPoint presentation was reviewed in-house by Jim Bush, Wayne Davis, Scott Newman, and Rob Sikora. Mr. Bush asked that the presentation be redrafted verbatim in Word format, organized under its main themes, and include a draft VTrans response based on the group's review for further internal discussion. The balance of this text is the draft submittal to Mr. Bush.

*NOTE: Black Text: City of Burlington  
Blue Text: Draft VTRANS Response*

## City of Burlington KEY POINTS

1. Alt. #2 (Pine St) does not meet the purpose and need of the project.
2. NEPA process requires consideration of impacts to the human environment in addition to natural, cultural or historic
3. Impacts on neighborhood livability bears a very direct relationship to the integrity of the historic resources along Alt. #2.
4. Alt. #2 negative impacts on low income and minority population concentrations raises significant environmental justice concerns.
5. Alt #1 (Battery Street extension) is a continuation of the historic transportation use and development pattern in the area

### **KEY POINT #1:**

**ALT. #2 (PINE ST) DOES NOT MEET THE PURPOSE AND NEED OF THE PROJECT.**

#### 1997 FSEIS, p 1-10:

“The purpose is also to eliminate the disruption to local neighborhoods and separate the local and through-traffic. The proposed transportation corridor is expected to become the major routing for through-traffic in the area. The **reassignment** of the majority of through-traffic to this route will reduce traffic volume levels along neighborhood streets, and improve accessibility to adjacent neighborhood areas.”

VTRANS: This P&N statement is irrelevant to the discussion as it is excerpted from a previous project with a 4-lane build out.

#### From Feb. 1997 FSEIS (p.2-9):

“Other alternatives that were also analyzed included: 1) an existing streets alternative which utilized existing streets at the north end of the project such as Maple Street, King Street and Main Street; this alternative was dropped due to objections from the City of Burlington, regarding traffic flowing through residential areas, and 2) a widening of Lakeside Avenue which would route traffic onto Pine Street from the connector utilizing Lakeside Avenue. This second alternative would only be effective with a major widening of Pine Street. Such a widening was not considered acceptable from the standpoint of environmental impacts and local acceptability.”

VTRANS: This P&N statement is irrelevant to the discussion as it is taken from a previous project with a 4-lane build out.

#### 2006 DEIS, p 1-15:

“The purpose of the project is also to eliminate the disruption to local neighborhoods and separate the local and through-traffic. Truck traffic that is destined for the CCD or the industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector/Champlain Parkway and removed from the local street network. The proposed transportation corridor is expected to become the major routing for north-south through-traffic in the area. The reassignment of the majority of through-traffic to this route would reduce traffic volume levels along neighborhood streets and improve accessibility to adjacent neighborhood areas.”

VTRANS: Truck traffic destined for the CCD or industrial areas accessed from Home and Flynn avenues will be directed onto the Southern Connector/Champlain Parkway. The Pine Street alternative, selected as the preferred alternative in the 2006 DSEIS will utilize traffic signals and Intelligent Traffic Systems (ITS) to encourage traffic to remain on Pine Street and off of King and Maple Streets.

#### 2006 DEIS (p.1-13)

- “...the existing street pattern encourages use of neighborhood streets by truck due to lack of alternative routings. This mix of traffic has created conflict and access concerns in the vicinity of the C-2 neighborhoods, and the King St./Maple St. neighborhood, located at the north end of Pine St.”

VTRANS: Agreed. The Pine Street alternative ameliorates these conflicts through the use of traffic signals, ITS, and achieving improvements in the levels of Service at the Pine/Maple and Pine/King intersections.

The project build-out is 2 lanes, which is met with the Pine Street alternative.

#### City's Response to 2006 DEIS:

- 5/17/07 letter from Mayor Kiss to VTrans and FHWA
- Acknowledges re-evaluation of Alt #2 at VTrans' suggestion
- Based on 2006 DEIS, City finds that Alt #2 continues to fail to address Purpose and Need as in 1997 FSEIS
  - No reduction in traffic volumes
  - No relocation of truck traffic

VTRANS: There are gradual, minimal increases in traffic on Pine Street over the next 30 years compared to the No-Build. However, “traffic flow” will improve in the C-6 section due to improvements implemented with this project.

#### 2006 Burlington Master Plan (p. V-9)

“Redesign of the Champlain Park Way must therefore meet the following objectives:

- To remove trucks from residential streets and serve as a designated truck route.
- To remove through traffic from residential streets by serving as an alternative route into the city. This should be augmented by development of a Traffic Calming Plan for the South End neighborhoods.

- To blend into adjacent residential neighborhoods with no more than 2 travel lanes, narrow lane widths, a low design speed and speed limits, sensitive streetscape design, utilities placed underground, and safe pedestrian crossings. Sound Barriers and fences should not be used in the new design.”

VTRANS: The Pine Street alternative substantially achieves these goals, with the exception of the undergrounding of utilities.

#### City Council Resolution

- City Council resolution in 2006 agreed to support reconsideration of Alt. #2
- Premised upon:
  - addressing potential neighborhood impacts
  - access through Street Dept. and railyard for truck traffic
  - continued consideration of railyard relocation

VTRANS: All three bullets cited above are still being considered, and VTrans is open to discussion on these points.

#### Segmentation

- The segmentation of the entire Southern Connector review has undermined the ability to fairly consider the environmental detriment of the connector through the historic neighborhoods. When the EIS for the entire connector route had previously been done, the residential neighborhood (at C-6) was considered important enough to mandate a different route.

### **KEY POINT #2:**

**NEPA PROCESS REQUIRES CONSIDERATION OF IMPACTS TO THE HUMAN ENVIRONMENT IN ADDITION TO NATURAL, CULTURAL OR HISTORIC**

- NEPA was instituted for the protection of people.
- Changes in the character of neighborhoods
- Views
- Noise/Traffic
- Aesthetic considerations – including landscape
- Pollution/air quality
- Economic factors
- NEPA process requires consideration of impacts to the human environment in addition to natural, cultural or historic
- EIS must consider all manner of impacts and how they inter-relate.
  - Tangible and intangible
  - Short-term and long-term
- EIS process considers impacts of proposed alternatives regardless of monetary cost

- Trigger: "A major federal action significantly affecting the quality of the human environment."
- The substantive policies and goals of NEPA are found in §101 of the Act and are broadly worded declarations such as Congress' desire to **"promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony..."** and Congress' direction that the federal government act so that the nation may **"fulfill the responsibilities of each generation as trustee of the environment for succeeding generations"** and **"assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings...."**
- Public Law 91-190, §101
- The Court, in the *Calvert Cliffs'* decision\*, noted that Congress directed that these substantive goals and policies be pursued by the federal government using **"all practicable means."** In contrast, Congress directed that the procedural requirement of an EIS, found in §102 of the Act, was to be followed **"to the fullest extent possible."** The decision by the court in *Calvert Cliffs* was the agency decision was **"arbitrary or clearly gave insufficient weight to environmental values."\*\*\***

\**Calvert Cliffs' Coordinating Committee v. Atomic Energy Commission* 449 F 2d 1109 (1971)

\*\* *ibid* at 1115.

- The EIS should explore *all reasonable alternatives* ...The EIS must describe the affected area concisely...such effects might include **ecological, economic, historical, aesthetic, or social aspects**. Indirect effects relate principally to population-induced changes ....NEPA requires the incorporation of all costs in the evaluation of a proposal, including those costs and benefits which are environmental in nature....the process **must consider these less quantifiable aspects of our environment** as well as those which are more simply expressible in monetary terms.
- Sugarbush Valley, Inc. EIS review was limited to the specific project area. The court determined that a too narrow interpretation of what is the "project" was resulted in a failure to fully account for environmental issues involved with the development. (increased need for housing, school enlargement, infrastructure, etc.) The EIS must consider the secondhand effects of proposed development.

VTRANS: Agreed, in that the text above reiterates accepted NEPA processes for consideration of the human environment.

Alt #2 - Neighborhood Reinvestment:

- Long-term City objective and targeted strategies

- Since 1979, KSNRC has rehabilitated over 200 rental housing units and leveraged over \$9 million of funds
- Home ownership opportunities being created for first-time buyers (25 condos in 5 yrs, another 15-30 planned)
- Private reinvestment taking place - \$16 million invested in recent years and another \$6 million planned.
- Future reinvestment very unlikely with any further negative impacts related to traffic and trucks through the neighborhood.

VTRANS: The 2006 DSEIS evaluated potential impacts to the factors cited in Burlington's presentation, including:

- Changes in the character of neighborhoods (pg 4-60)
- Views (4-130)
- Noise (4-101)
- Traffic (4-1 to 4-49)
- Aesthetic considerations – including landscape (4-130)
- Pollution/air quality (4-96)
- Economic factors (Numbers)

The DSEIS concluded that there would be no significant adverse impacts accruing within any of these factors. The only lasting change is a relatively minor graduated increase in traffic along Pine Street, which when coupled with the planned ITS improvements, provides a net increase in mobility.

The study further concludes that traffic will be reduced on Maple Street by 1300 cars/day, and on King Street by 1400 cars/day, enhancing the character of these neighborhoods (DSEIS Pg 4-45, 4-46).

**KEY POINT #3:**

**IMPACTS ON NEIGHBORHOOD LIVABILITY BEAR A VERY DIRECT RELATIONSHIP TO THE INTEGRITY OF THE HISTORIC RESOURCES ALONG ALT. #2.**

- Clear that reinvestment is taking place. A direct effect of improving the condition and integrity of historic buildings in the neighborhood
  - substantial rehabilitation
  - correcting deferred maintenance
  - increased pride of ownership
- As livability/desirability declines in a neighborhood, reinvestment stops
  - no more rehabilitation
  - increased deferred maintenance
  - resulting **physical deterioration** of historic structures

Result of increase traffic through this residential neighborhood, and related truck traffic will very clearly have an **adverse effect** on the characteristics of this National Register District.

- *An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative. (Section 106 § 800.5 Assessment of adverse effects, emphasis added)*

VTRANS: For Section 106, effects of an undertaking are understood as the net changes realized by the transportation project. In other words, the regulations require that we evaluate ambient conditions affecting historic properties and compare them with expected conditions after the project is implemented.

Currently, Pine Street is functionally classified as a Minor Arterial, and a major transportation artery within the City of Burlington carrying cars, trucks, and mass transit traffic. Studies carried out in the NEPA documents, as well as presentations by City of Burlington staff have substantiated this fact.

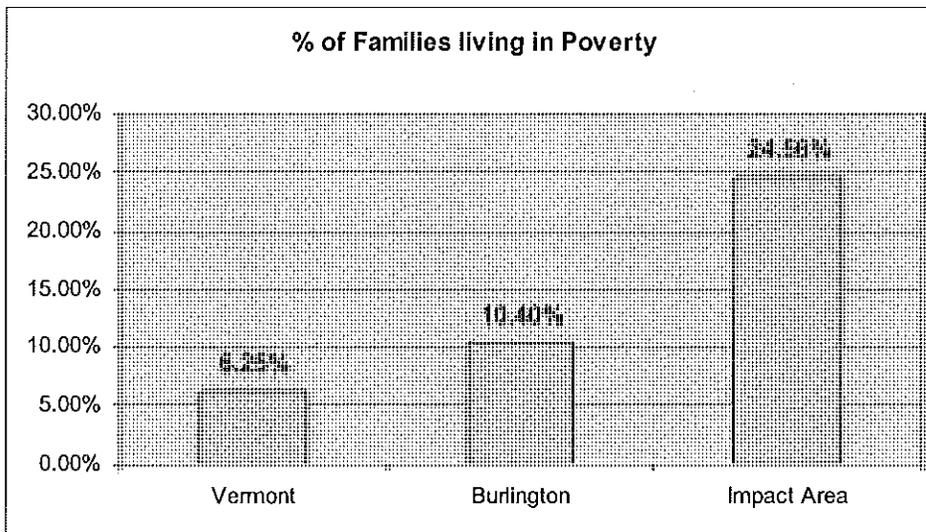
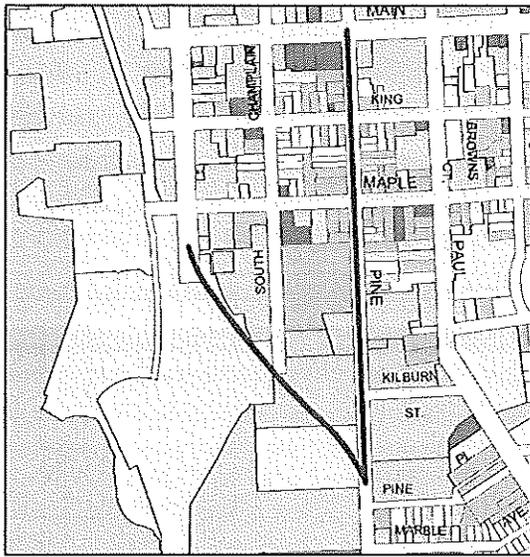
The effects of a graduated increase in traffic to the design year, 2028, will be minimized by improvements to traffic movement, resulting in a net benefit in mobility along Pine Street with an attendant reduction in traffic on Maple and King Streets. The result will not adversely affect historic properties, and will improve conditions in portions of the C-6 historic districts.

#### **KEY POINT #4:**

**ALT. #2 NEGATIVE IMPACTS ON LOW INCOME AND MINORITY POPULATION CONCENTRATIONS RAISES SIGNIFICANT ENVIRONMENTAL JUSTICE CONCERNS.**

#### Alt #2 - Neighborhood Context:

- Adjacent land use: Northern ¾ is dominantly residential, lower ¼ is largely commercial.
- Largely rental
- High concentration of subsidized rental units – 219 units
- 
- Likely the poorest Census Block Group in Vermont.
- High concentrations of minority & refugee populations



VTRANS: The subject of Environmental Justice was evaluated in the DSEIS (pg 4-63). The concluded that there would not be disproportionate impacts to low income or minority populations.

**KEY POINT #5:**

**ALT #1 (BATTERY STREET EXTENSION) IS A CONTINUATION OF THE HISTORIC TRANSPORTATION USE AND DEVELOPMENT PATTERN IN THE AREA**

Alt #1 (Battery Street extension) is Complimentary and Consistent to Historic Resource

Context:

- Adjacent land use is dominantly commercial-Industrial

- Route travels along boundary between historic rail facility and adjacent commercial buildings.
- Route continues transportation use within the alignment of an existing rail spur thus maintaining the historic pattern of development and transportation infrastructure.
- Recent City agreement with VT Railway regarding relocation of portions of the railyard is an important new development enhancing the viability of Alt. #1.

VTRANS: This issue has been raised before by the City, in Steve Goodkind's 02/21/07 to Rob Sikora. Mr. Sikora's response (Date) rejected the City's assertion that a new highway through the Battery Street Historic District would be consistent with the historic uses of that corridor, stating that a two lane highway is vastly different in scale and impact compared with a RR siding with occasional use. Mr. Sikora added that the City's proposal to site a new highway through the district would require the demolition of the historic RR siding, creating additional adverse effect under Section 106.

## SUMMARY COMPARISON

### Alt #1 – Battery St.

- Commercial-industrial neighborhood
- Potential National Register District(s)
- Reduces traffic in adjacent neighborhood (-1,500 vehicles per day)
- Relocates truck route from adjacent residential neighborhood
- Stimulate private investment

### Alt #2 – Pine St.

- Residential neighborhood serving a predominantly low-income, minority population
- Private investment taking place
- Listed National Register District
- Existing traffic congestion and safety concerns
- 30% increase in traffic (+1,800 vehicles per day)
- Continuation of truck route through residential neighborhood
- Discourage private investment

## CONCLUSIONS

- Alt. #2 (Pine St) **fails to meet the purpose and need** of the project.
- Negative impacts on low income and minority population concentrations by Alt. #2 raises **significant environmental justice concerns**.
- Negative impacts on neighborhood livability by Alt. #2 bears a very direct relationship to the integrity of the historic resources and **will have an adverse effect** on the characteristics of this National Register District.

- Alt #1 (Battery Street extension) is **complimentary to the historic transportation use and development pattern** in the area.

VTRANS:

We note that most of the issues raised by the City in its presentation have already been discussed, and VTrans has responded to the City in detail and in writing on these issues.

We note that the impacts of this project are minor, involve small increases in traffic on an existing urban arterial roadway that currently serves as a thoroughfare for cars, trucks and mass transit in the City of Burlington.

We note that the minor impacts are ameliorated by the implementation of Intelligent Traffic Systems which improve levels of service on Pine Street, and reduce traffic on residential side streets, particularly King and Maple Streets.

We note that the issues raised have all been thoroughly examined in the 2006 DSEIS managed by the City of Burlington, which concluded that there are no adverse impacts arising from the Pine Street alternative, the preferred alternative.

## **APPENDIX 4: CENSUS DATA**

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## Champlain Parkway Environmental Justice Analysis Progress Memo

### Background

The Champlain Parkway is being developed by the City of Burlington in cooperation with the Federal Highway Administration (FHWA) and the Vermont Agency of Transportation (VTTrans). This memo describes the preliminary Environmental Justice (EJ) analysis and methodology and provides a portion of the 2019 update to the EJ analysis for the project. This review conforms with Executive Order 12898 and the requirements and guidance issued by FHWA which includes, but is not limited to, the December 2011 FHWA Memorandum regarding guidance on Environmental Justice and NEPA and the 2012 FHWA Order 6640.23A.

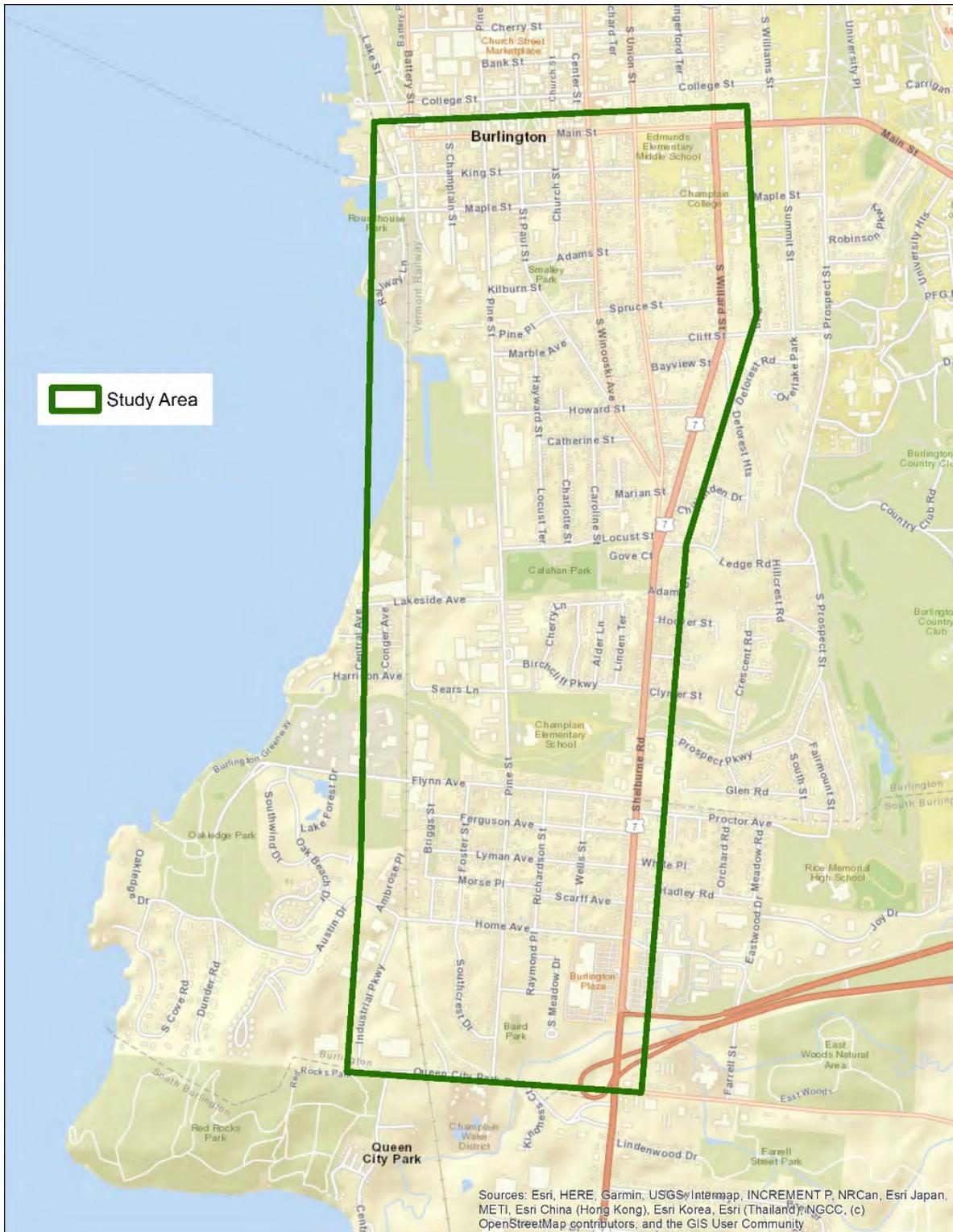
*“Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, signed by the President on February 11, 1994 directs Federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of Federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.”*

This step of the EJ assessment is to collect demographic data and identify existing minority and/or low-income populations that may be affected by the project.

### Study Area

The limits of the study area for this analysis match the study area identified in the Southern Connector/Champlain Parkway NEPA documents (see Figure 1). Though the traffic operations analysis separates the study area into primary and secondary areas, this analysis looks at the study area as a whole. All communities within the study area will be impacted by the project, so it is more appropriate to consider the whole study area.

Figure 1: Study Area



## EJ Analysis Methodology

American Community Survey<sup>1</sup> (ACS) 2014-2018 5-Year Estimates were used to identify minority communities. The ACS 5-Year Estimates for household income were compared to the Health and Human Services (HHS) guidelines to identify low-income communities.

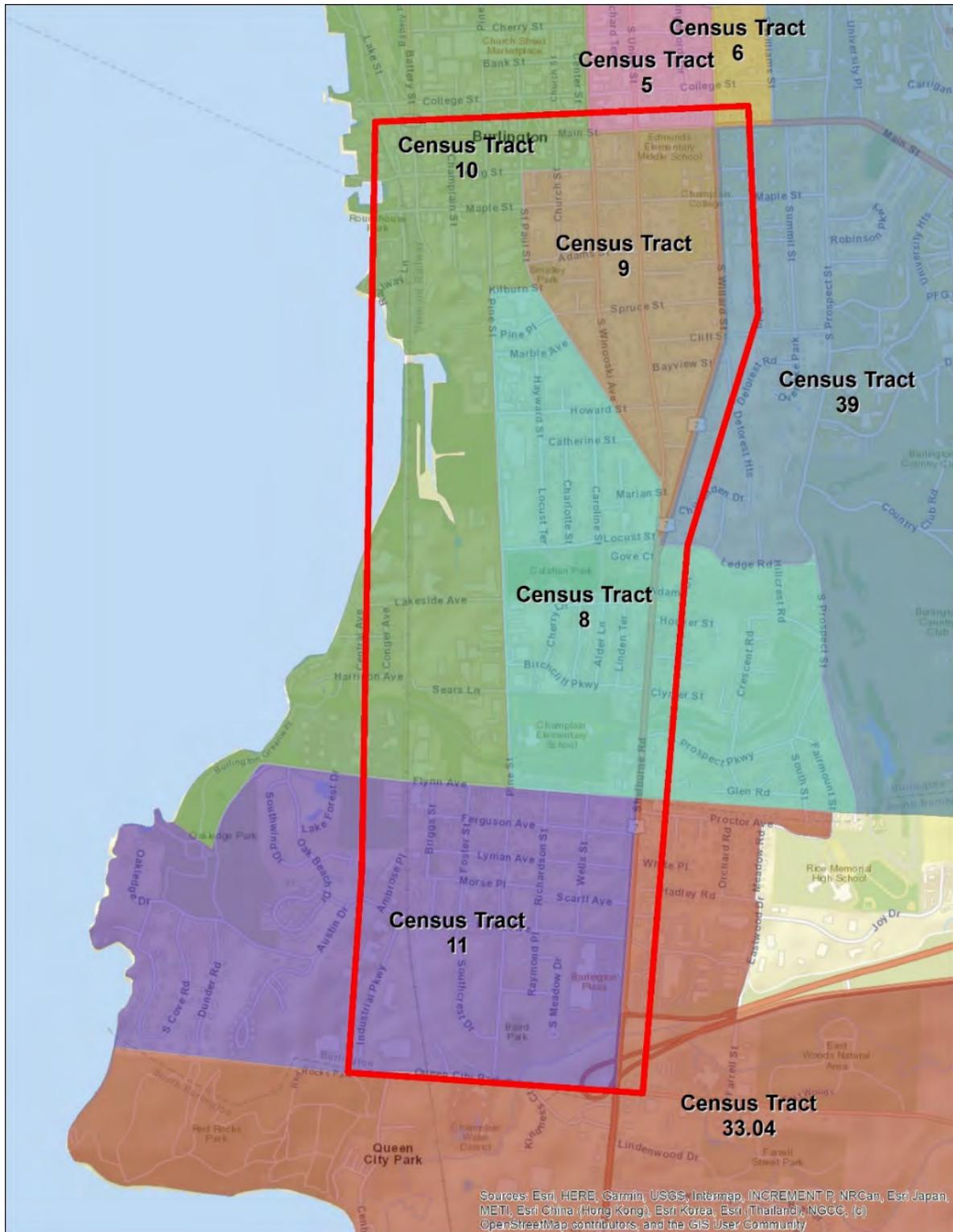
The demographics of Burlington have been changing and the data from the 2010 Census is nine years old, so the ACS data provides the most recent and reliable data at the census tract level. Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people. As seen on Figure 2, eight census tracts are fully or partially within the study area: Census Tract 5, Census Tract 6, Census Tract 8, Census Tract 9, Census Tract 10, Census Tract 11, Census Tract 33.04, and Census Tract 39. The majority of the Study Area is within Census Tracts 8, 9, 10, and 11.

The Environmental Protection Agency (EPA) has developed EJSCREEN, an online environmental justice mapping and screening tool. Though this tool is valuable in identifying locations that may necessitate further review, it does not capture all relevant information, data may be several years old, and available data has substantial uncertainty in demographic and environmental estimates, particularly when reviewing small geographic areas. Therefore, EPA recommends that information from EJSCREEN be supplemented by other information, including updated datasets when available. EJSCREEN was used for several initial reviews. Since EJSCREEN is utilizing the 2012-2016 ACS 5-year estimates, 2014-2018 ACS 5-year estimates were obtained from the Census Bureau's Data Platform ([data.census.gov](https://data.census.gov)) to ensure that the most recent available data was utilized in this review.

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<sup>1</sup> The ACS is an ongoing survey conducted by the Census Bureau between the decennial census. "It is a nationwide, continuous survey designed to provide communities with reliable and timely social, economic, housing, and demographic data every year." (ACS Information Guide: [https://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS\\_Information\\_Guide.pdf](https://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS_Information_Guide.pdf))

Figure 2: Study Area Census Tracts



## Minority Populations

For the purposes of EJ, FHWA defines minority populations as: Black, African-American or of African descent, of Hispanic or Latino origin, Asian-American, American Indian, Alaskan Native, Native Hawaiian, or Pacific Islander. The percentage of minority communities in the Burlington City area and in study area census tracts is shown on Figure 3.

Each census tract within the study area has at least one minority population that exceeds the city average for that population (Table 1). There is a minority community in Census Tract 10. The City of Burlington is 17.1% minority while Census Tract 10 is 18.1% minority. There are additional block groups (in Census Tracts 8 and 33.04) where the total minority population also exceeds that of the City of Burlington, however the census tracts themselves are less diverse than the City. The residential portion of Census Tract 10 that is within the study area is part of the Maple and King neighborhood.

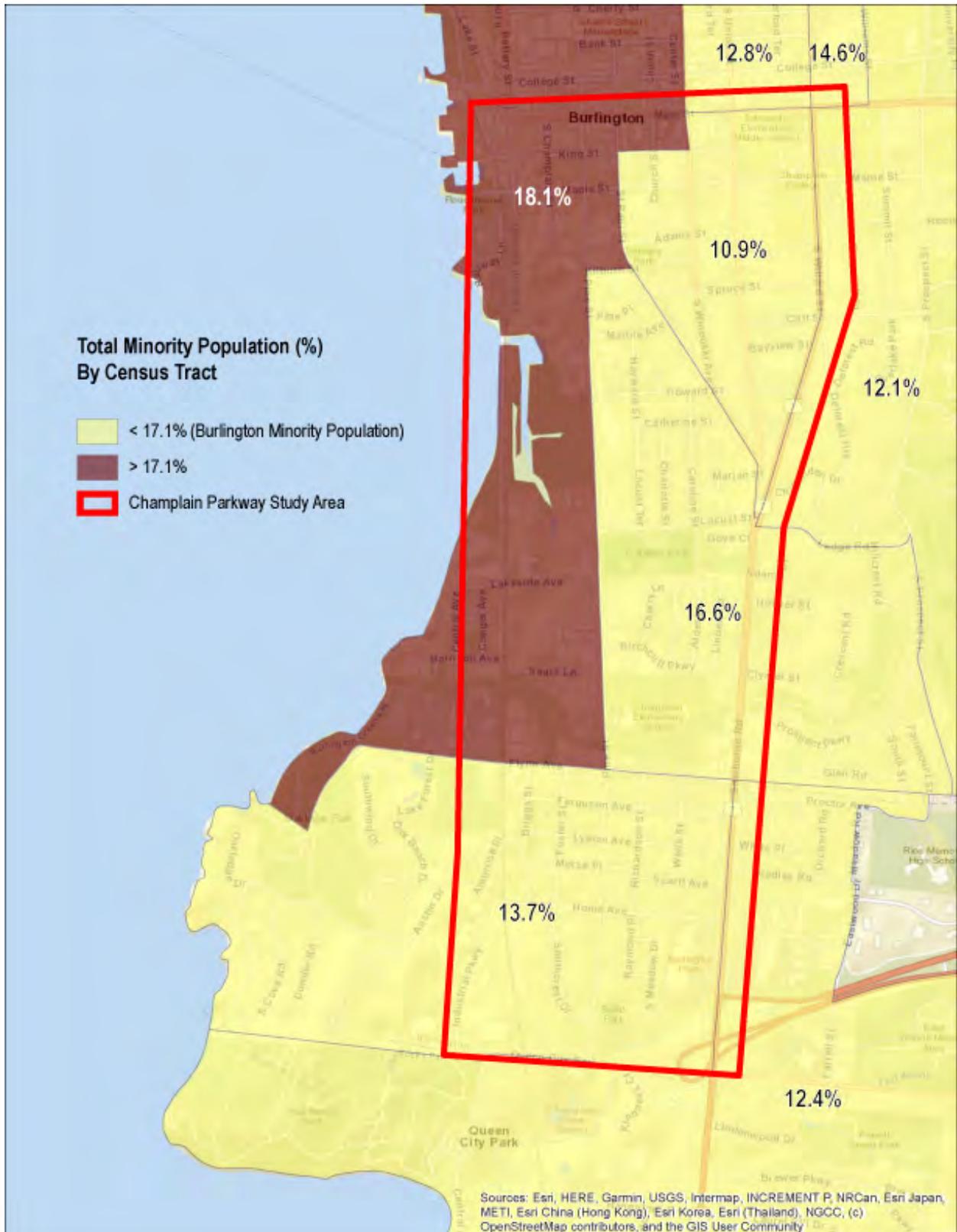
Table 1: Race and Ethnicity (2018)

Geography	TOTAL MINORITY*	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino
<b>Census Tract 5</b>	<b>12.8%</b>	<b>7.5%</b>	<b>0.0%</b>	<b>1.8%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>1.7%</b>	<b>2.7%</b>
Block Group 3	10.8%	4.0%	0.0%	1.9%	0.4%	0.0%	3.2%	3.0%
<b>Census Tract 6</b>	<b>14.6%</b>	<b>5.2%</b>	<b>0.1%</b>	<b>4.6%</b>	<b>0.0%</b>	<b>0.5%</b>	<b>1.6%</b>	<b>3.1%</b>
Block Group 2	10.7%	0.0%	0.2%	8.5%	0.0%	0.0%	0.9%	1.3%
<b>Census Tract 8</b>	<b>16.6%</b>	<b>2.9%</b>	<b>0.4%</b>	<b>10.7%</b>	<b>0.0%</b>	<b>0.4%</b>	<b>1.1%</b>	<b>1.6%</b>
Block Group 1	19.8%	3.8%	0.0%	12.5%	0.0%	0.5%	1.4%	2.1%
Block Group 2	6.8%	0.0%	1.7%	5.1%	0.0%	0.0%	0.0%	0.0%
<b>Census Tract 9</b>	<b>10.9%</b>	<b>1.2%</b>	<b>0.0%</b>	<b>4.3%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>4.5%</b>	<b>1.4%</b>
Block Group 1	13.2%	1.6%	0.0%	2.3%	0.0%	0.3%	6.6%	2.8%
Block Group 2	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.0%
Block Group 3	15.6%	1.6%	0.0%	10.3%	0.0%	0.0%	3.6%	1.0%
<b>Census Tract 10</b>	<b>18.1%</b>	<b>8.8%</b>	<b>1.5%</b>	<b>1.8%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>2.0%</b>	<b>4.1%</b>
Block Group 1	19.1%	7.4%	0.6%	2.4%	0.0%	0.0%	2.7%	6.0%
Block Group 2	16.7%	10.8%	2.8%	1.0%	0.0%	0.0%	1.0%	1.3%
<b>Census Tract 11</b>	<b>13.7%</b>	<b>3.4%</b>	<b>1.5%</b>	<b>2.1%</b>	<b>0.0%</b>	<b>0.9%</b>	<b>4.2%</b>	<b>2.1%</b>
Block Group 1	17.1%	5.5%	2.4%	0.8%	0.0%	0.0%	5.9%	3.3%
Block Group 2	8.0%	0.0%	0.0%	4.4%	0.0%	2.4%	1.2%	0.0%
<b>Census Tract 33.04</b>	<b>12.4%</b>	<b>1.3%</b>	<b>1.0%</b>	<b>5.4%</b>	<b>0.0%</b>	<b>0.6%</b>	<b>2.5%</b>	<b>2.2%</b>
Block Group 1	19.9%	1.0%	2.8%	11.6%	0.0%	1.1%	2.6%	1.9%
<b>Census Tract 39</b>	<b>12.1%</b>	<b>1.7%</b>	<b>0.1%</b>	<b>4.8%</b>	<b>0.1%</b>	<b>0.5%</b>	<b>2.1%</b>	<b>3.8%</b>
Block Group 1	8.4%	2.0%	0.0%	0.3%	0.3%	0.5%	1.2%	6.1%
<b>Burlington City</b>	<b>17.1%</b>	<b>5.3%</b>	<b>0.3%</b>	<b>6.4%</b>	<b>0.0%</b>	<b>0.3%</b>	<b>2.7%</b>	<b>2.8%</b>
<b>Chittenden County</b>	<b>11.2%</b>	<b>2.5%</b>	<b>0.3%</b>	<b>4.2%</b>	<b>0.0%</b>	<b>0.6%</b>	<b>2.0%</b>	<b>2.3%</b>

Source: US Census Bureau, American Community Survey 2018 5-Year Estimates (Tables B02001 and B03002)

\* Total Minority: Sum of each of the protected races (Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Pacific Islander, Some Other Race, Two or More Races) and White Alone Hispanic or Latino.

Figure 3: Minority Population



## Data Comparison

Since the 2000 Census, Burlington has become increasingly diverse. In the 2000 Census and 2009 5-Year ACS, 9.2% of the City's population reported a minority race or ethnicity. By the 2018 ACS, that percentage had increased to 17.1%. Census Tracts 8 and 10 had the largest increase, both increased their minority population by 9.7% between 2000 and 2018.

**Table 2: Race and Ethnicity Over Time**

Geography	2000 Total Minority	2009 Total Minority	2018 Total Minority	INCREASE OVER TIME
Census Tract 5	7.7%	7.0%	12.8%	5.1%
Census Tract 6	8.4%	6.1%	14.6%	6.2%
Census Tract 8	6.9%	7.7%	16.6%	9.7%
Census Tract 9	6.7%	11.8%	10.9%	4.2%
Census Tract 10	8.4%	8.6%	18.1%	9.7%
Census Tract 11	13.9%	11.6%	13.7%	-0.2%
Census Tract 33.04 (formerly a portion of Census Tract 33)	6%	16.2%	12.4%	6.4%
Census Tract 39 (Formerly Census Tract 7)	7.4%	10.5%	12.1%	4.7%
<b>Burlington City</b>	<b>9.2%</b>	<b>9.2%</b>	<b>17.1%</b>	<b>7.9%</b>
<b>Chittenden County</b>	<b>5.9%</b>	<b>8.4%</b>	<b>11.2%</b>	<b>5.3%</b>

Source: US Census Bureau, American Community Survey 2018 5-Year Estimates (Tables B02001), US Census Bureau, American Community Survey 2009 5-Year Estimates (Table B02001), and US Census Bureau, Census 2000 Summary File 1 (Table DP-1)

## Low-Income Populations

To identify low-income communities, the United States Department of Transportation (DOT) and the Federal Highway Administration (FHWA) use the Department of Health and Human Services (HHS) poverty guidelines. Based on these guidelines, none of the study area census tracts meet the criteria for low-income populations.

None of the census tracts in the study area meet the HHS poverty guidelines (see Table 4), so they are not considered low-income communities for FHWA EJ analyses. For reference, the 2018 5-Year ACS data is provided in Table 5.

There is a homeless encampment on Sears Lane on a parcel the City purchased as right-of-way for this project. In the Fall of 2019, the number of trailers at this location varied. There appeared to be between one and four trailers at different times through the fall. Supportive services (including lodging) are available to the encampment's residents and there is capacity at local and regional facilities to support this population. As this project is developed, it is most likely that the people using this encampment will utilize the available lodging and/or other supportive services or move to another encampment in the city.

**Table 3: Median Household Income by Household Size (2018)**

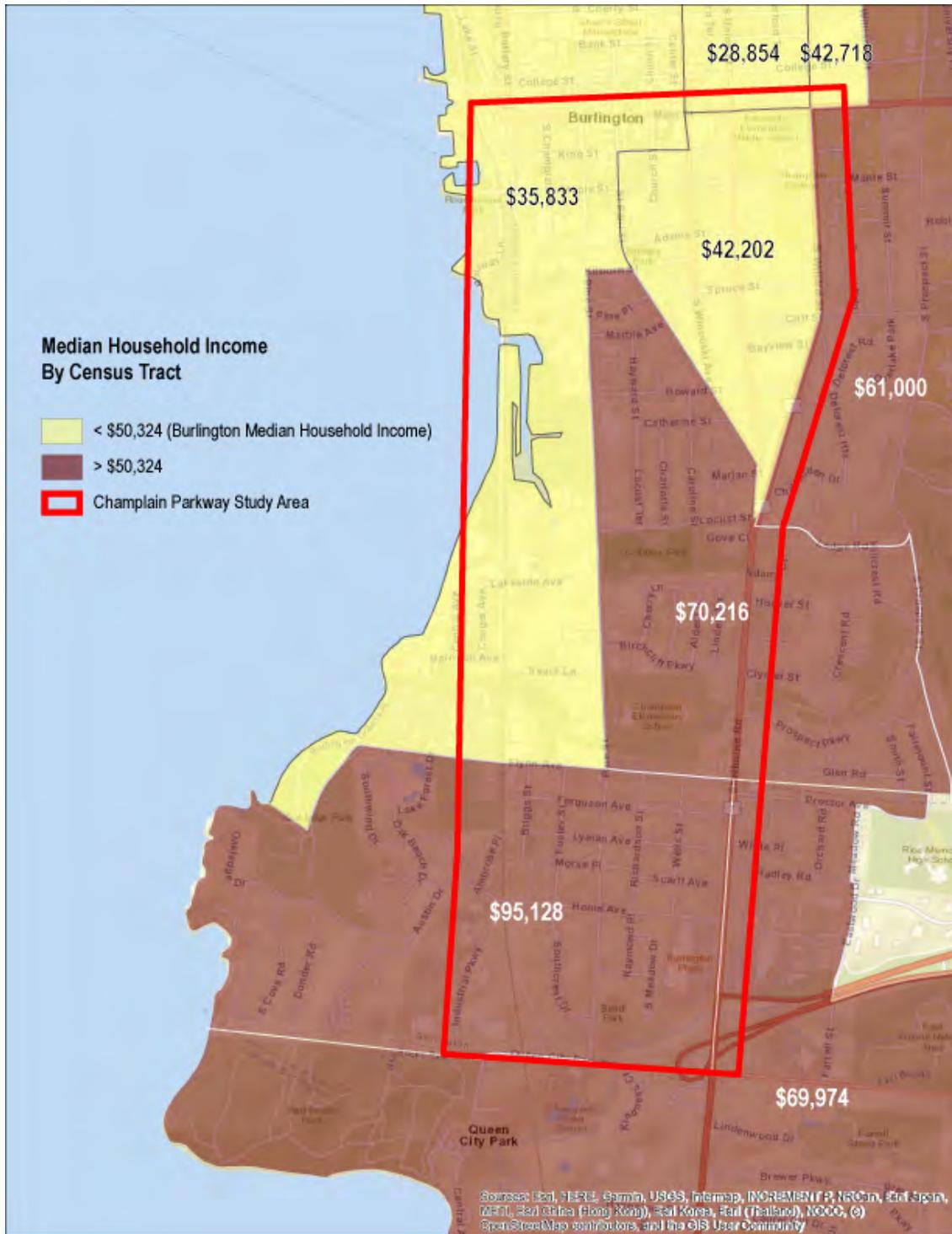
Geography	Median Household Income	Household Size						
		1 Person	2 People	3 People	4 People	5 People	6 People	7+ People
Census Tract 5	\$28,854	\$15,889	\$36,473	-	-	\$41,250	-	-
Census Tract 6	\$42,718	\$25,580	\$44,500	-	\$70,476	\$71,210	-	-
Census Tract 8	\$70,216	\$44,444	\$73,214	\$126,806	\$108,750	\$134,844	-	-
Census Tract 9	\$42,202	\$23,523	\$64,715	-	\$83,832	-	-	-
Census Tract 10	\$35,833	\$19,457	\$78,450	\$139,438	-	-	-	-
Census Tract 11	\$95,128	\$65,677	\$99,271	\$93,750	\$116,563	\$250,000 +	-	-
Census Tract 33.04	\$69,974	\$42,167	\$81,641	\$84,000	\$141,500	-	-	-
Census Tract 39	\$61,000	\$38,750	\$110,156	-	\$82,917	-	-	-
<b>Burlington City</b>	<b>\$50,324</b>	<b>\$27,255</b>	<b>\$63,780</b>	<b>\$70,192</b>	<b>\$64,767</b>	<b>\$72,242</b>	<b>\$63,155</b>	<b>\$89,524</b>
<b>Chittenden County</b>	<b>\$69,896</b>	<b>\$36,686</b>	<b>\$78,884</b>	<b>\$91,539</b>	<b>\$110,571</b>	<b>\$111,696</b>	<b>\$88,092</b>	<b>\$89,940</b>
<b>2018 HHS Poverty Guidelines</b>	<b>n/a</b>	<b>\$12,140</b>	<b>\$16,460</b>	<b>\$20,780</b>	<b>\$25,100</b>	<b>\$29,420</b>	<b>\$33,740</b>	<b>\$38,060*</b>

*Source: US Census Bureau, American Community Survey 2018 5-Year Estimates (Table B19019)*  
 \* For households with more than 7 people, add \$4,320 for each additional person.

### Data Comparison

In 2010, the first year median household income by household size became available from the Census Bureau, only one study area census tract (Census Tract 5) had household median incomes lower than the HHS threshold at the time. Four- and five-person households in Census Tract 5 had household median incomes lower than the HHS thresholds, but the margin of error is astronomical since there were so few households in that category. Prior to 2010, household median income by household size was not available from the Census Bureau.

Figure 4: Median Household Income



## Conclusion

To identify low-income communities, FHWA recommends using the HHS poverty guidelines. Based on these guidelines, none of the study area census tracts meet the criteria for low-income populations.

Based on the most recent ACS 5-year estimates, Census Tract 10 appears to be a minority population given the higher percentage of minority residents than the city or county. The residential portion of this census tract that is within the study area comprises much of the Maple and King Street neighborhood.

Based on the above analysis, the Project Team has proceeded with outreach to the Maple and King Street neighborhood to assist with further identifying project issues. Targeted outreach to other neighborhoods is not necessary under FHWA EJ procedures since no other low-income or minority populations within the Project Area were identified.

The Project Team is proceeding with the EJ analysis and outreach and held a public meeting on September 26<sup>th</sup>. In preparation for the meeting, City of Burlington staff members had the meeting announcement translated into languages known to be spoken by minority residents of the Maple-King Street neighborhood including: Bhutanese-Nepali, Swahili, Somali (Mai-Mai), Burmese, and French. Fliers were mailed directly to residents in the Maple and King Street Neighborhood, and City staff went door-to-door in the neighborhood distributing fliers. The meeting was hosted at City Hall, a well-known public landmark that is ADA Accessible and within walking distance of the Maple and King Street Neighborhood. City staff has coordinated with the King Street Center, a popular local organization, to help identify and connect with EJ populations in the study area. In addition to providing the meeting announcement in multiple languages, interpreter services were available at the public meeting in the languages identified by the City. Interpretation for other languages was available upon request.

## **APPENDIX 5: VTRANS NOISE ANALYSIS AND ABATEMENT POLICY**

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U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Vermont Division**

July 13, 2011

87 State Street  
Montpelier, VT 05602  
(802) 828-4423  
(802) 828-4424  
Vermont.fhwa@fhwa.dot.gov

In Reply Refer To:

Mr. Brian Searles, Secretary  
Vermont Agency of Transportation  
1 National Life Drive  
Montpelier, VT 05633-5001

Attention: Mr. John Narowski

Subject: VTrans Noise Analysis and Abatement Policy  
2011 Revisions

Dear Mr. Searles:

As you are aware, FHWA promulgated new noise regulations at 23 CFR 772 requiring each state to update their own noise policies by July 13, 2011 to be consistent with the revised FHWA regulations. VTrans submitted a draft update of its noise policy in January, 2011 and the FHWA Vermont Division subsequently worked with Mr. Jeff Ramsey to resolve comments by FHWA Noise Specialists in our Washington, D.C. Headquarters. Based on the revisions, we have been informed by FHWA Headquarters that the 2011 VTrans Noise Analysis and Abatement Policy has been found to be in conformance with the revised FHWA regulations and has been approved for use. Enclosed is a copy of the final version of the policy.

Please be advised that the 2011 VTrans Noise Policy is effective today, July 13, 2011, and must be used to perform noise analyses for all projects. Noise analyses using the July 1997 VTrans Noise policy will no longer be accepted. Please make the updated Noise Policy available on the VTrans web site as well as appropriate contact information. In addition, we suggest that you pass this information along to design consultants and noise specialists that assist VTrans in analyzing highway noise issues and gauge the necessity for providing any training on the changes appearing in the policy. We appreciate the efforts of Mr. Ramsey and others in the VTrans Environmental Section to meet the deadlines imposed by the regulations. If you have any questions please contact this office.

Sincerely yours,

Kenneth R. Sikora, Jr.  
Environmental Program Manager

Enclosure



# VERMONT AGENCY OF TRANSPORTATION

## NOISE ANALYSIS AND ABATEMENT POLICY

Effective July 13, 2011

### 1. INTRODUCTION

This document contains the Vermont Agency of Transportation (VTrans) noise policy on highway traffic noise and construction noise. This policy describes VTrans' implementation of the requirements of the Federal Highway Administration (FHWA) Noise Standard at 23 Code of Federal Regulations (CFR) Part 772 (see Appendix A). This policy was developed by VTrans and reviewed and concurred with by FHWA.

During the rapid expansion of the Interstate Highway System and other roadways in the 20th century, communities began to recognize that highway traffic noise and construction noise had become important environmental impacts. In the 1972 Federal-aid Highway Act, Congress required FHWA to develop a noise standard for new Federal-aid highway projects. While providing national criteria and requirements for all highway agencies, the FHWA Noise Standard gives highway agencies flexibility that reflects state-specific attitudes and objectives in approaching the problem of highway traffic and construction noise. This policy contains VTrans' policy on how highway traffic noise impacts are defined, how noise abatement is evaluated, and how noise abatement decisions are made.

In addition to defining traffic noise impacts, the FHWA Noise Standard requires that noise abatement measures be considered when traffic noise impacts are identified for Type I Federal projects. Noise abatement measures that are found to be feasible and reasonable must be constructed for such projects. Feasible and reasonable noise abatement measures are eligible for Federal-aid participation at the same ratio or percentage as other eligible project costs.

### 2. PURPOSE AND SCOPE

VTrans has developed a Noise Analysis and Abatement Policy for the purpose of ensuring statewide uniformity in the analysis of transportation generated noise, the identification of potential impacts of transportation projects, and implementation of noise abatement measures that are determined to be reasonable and feasible; and for the purpose of addressing the requirements of 23 USC 109(1) and 23 CFR § 772.

It is VTrans policy to comply with the procedures for analysis of traffic and construction noise and noise abatement as described in 23 CFR § 772. VTrans has adopted the Noise standards identified in 23 CFR §772.3 and the Noise Abatement Criteria (NAC) defined in Table 1 of Part 772.

This policy shall apply to all Federal or Federal-aid Type I highway construction projects. The development and implementation of a program for Type II projects is not required by Federal law or regulation and VTrans does not have or intend to establish a Type II program as of the date of this policy. Any project that does not meet the definition of a Type I or a Type II project is a Type III project. Type III projects do not normally require noise analysis or consideration of abatement.

### 3. DEFINITIONS

VTrans has adopted and/or established the following definitions of relevant terms:

- Approach: A predicted noise level that is at or within 1dB (A) below a Noise Abatement Criteria found in Table 1 to Part 772.

- **Benefitted Receptor:** a beneficiary of a noise abatement measure that achieves a noise reduction at or above 5 dB(A).
- **Common Noise Environment:** A group of receptors within the same Activity Category in Table 1, that are exposed to similar noise sources and levels, traffic volumes, composition and speed, and topographic features. Generally common noise environments occur between two or more noise sources, such as between interchanges, intersections, cross-roads, frontage roads, or in contiguous properties along a common frontage.
- **Date of Public Knowledge:** The date of a Programmatic Categorical Exclusion (PACE) determination, or the date of approval of a Categorical Exclusion (CE), a Finding of No Significant Impact (FONSI), or a Record of Decision (ROD) as defined in 23 CFR § 771.
- **Design Year:** The future year used to estimate the probable traffic volumes for which a highway project is designed.
- **Existing Noise Level:** The worst, hourly value, noise level resulting from the combination of natural and mechanical sources and human activity that is usually present in a particular area.
- **Feasibility:** A determination based upon evaluation of the combination of acoustical, physical, and engineering factors and conditions pertinent to a noise abatement measure. Construction of a noise abatement measure is not feasible unless a noise reduction of at least 5 dB(A) for the majority (over 50%) of impacted receptors can be achieved.
- **Impacted Receptor:** A recipient of traffic noise which meets the definition of Traffic Noise Impact.
- **L10:** A sound level that is exceeded 10 percent of the time (the 90<sup>th</sup> percentile) for a specific time period under consideration, with L10(h) being an L10 value for a specific hour.
- **Leq:** An equivalent steady-state sound level which contains the same acoustic energy as the time-varying sound levels occurring in a specific period of time, with Leq(h) being an Leq value for a specific hour.
- **Multifamily Dwelling:** A residential structure containing more than one residence. Each residence in a multifamily dwelling shall be counted as one receptor when determining impacted and benefitted receptors.
- **Noise Barrier:** A physical obstruction existing or constructed between a noise source(s) and a noise sensitive receptor(s) that lowers the noise level; including stand alone noise walls, noise berms (earth or other material), and combination berm/wall systems.
- **Noise Reduction Design Goal :** The optimum desired dB(A) noise reduction determined by calculating the difference between predicted, future-built, noise levels mitigated by abatement and predicted, future-built, noise levels without abatement. The VTrans noise reduction design goal is to achieve a reduction of at least 7 dB(A) for at least 25 percent of the benefitted receivers in a common noise environment.
- **Permitted:** A proposed land use development that has a specific design which has been approved and issued a land use or construction/building permit by the State or any municipality, indicating a definite commitment and specific plan for development of the involved land.

- **Property Owner:** An individual or group of individuals that holds a title, deed, or other legal proof of ownership of a property or a residence.
- **Reasonableness:** A determination based upon evaluation of the combination of social, economic, and environmental factors and conditions pertinent to a noise abatement measure. It is VTrans policy that construction of a noise abatement measure is reasonable if the cost per benefitted receptor does not exceed \$40,000.
- **Receptor :** A discrete or representative physical location, outdoors at ground level, where human activities, as identified in the land use/activity categories listed in Table 1, occur frequently; generally a residence.
- **Residence:** A dwelling unit; either a single family residence or each residential unit in a multifamily dwelling.
- **Statement of likelihood:** A statement provided in an environmental clearance document based on an analysis of feasibility and reasonableness, concluded with the approval of a final environmental document. A statement of likelihood will only be provided for a Type I project.
- **Substantial Construction:** The granting of a building permit, prior to acquisition of right-of-way or construction approval for a highway project.
- **Substantial noise increase:** As required by 23 CFR § 772.11(f), VTrans defines “substantial noise increase” as an increase, in the design year noise level, of 15 dB (A) above the existing noise level.
- **Traffic Noise Impact :** A design year, built-condition, predicted noise level that approaches/ reaches or exceeds the Noise Abatement Criteria listed in 23 CFR § 772 Table 1; or design year, built-condition, predicted noise level that is a substantial noise increase over existing noise level.
- **Type I Project :** A Federal or Federal-aid highway project which consists of:
  - (1) The construction of a highway on new location; or,
  - (2) The physical alteration of an existing highway where there is either:
    - (i) Substantial Horizontal Alteration [i.e. a project that halves the distance between the existing condition traffic noise source and the future built-condition, closest receptor]; or
    - (ii) Substantial Vertical Alteration [i.e. a project that removes shielding therefore exposing the line-of-sight between the receptor and the traffic noise source; either by altering the vertical alignment of the highway or by altering the topography between the highway traffic noise source and the receptor]; or,
  - (3) The addition of a through-traffic lane(s) [including the addition of a through-traffic lane that functions as a High Occupancy Vehicle (HOV) lane, HO-Toll lane, bus lane or truck climbing lane]; or,
  - (4) The addition of an auxiliary lane [except an auxiliary lane which is a turn lane]; or,

- (5) The addition or relocation of interchange lanes or ramps to an interchange quadrant to complete an existing partial interchange; or,
  - (6) Restriping existing pavement for the purpose of adding a through-traffic lane or an auxiliary lane; or,
  - (7) The addition of a new or substantial alteration of an existing, weigh station, rest stop, ride-share lot, or toll plaza. If a project is determined to be a Type I project under this definition then the entire project area as defined in the environmental document is a Type I project.
- Type II Project: A Federal or Federal-aid highway project for noise abatement on an existing highway. For a Type II project to be eligible for Federal-aid funding, the highway agency must develop and implement a Type II program in accordance with §772.7(e). VTrans has not implemented a Type II program.
  - Type III Project: Any Federal or Federal-aid highway project that does not meet the definitions of a Type I or Type II project is a Type III project. Type III projects do not require a noise analysis under the FHWA noise regulations but may occasionally involve a noise analysis for the purpose of determining project impacts in a NEPA analysis.

#### **4. APPLICABILITY**

The VTrans Noise Analysis and Abatement Policy shall apply statewide, uniformly, and consistently to all Federal and/or Federal-aid highway projects authorized under Title 23 USC.

#### **5. PREDICTION OF TRAFFIC NOISE**

It is VTrans policy that all sound level prediction shall be conducted as described in 23 CFR §772.9 using the latest Federal Highway Administration (FHWA) highway Traffic Noise Model (TNM) computer program. Analysis of traffic noise levels shall occur for Type I projects only. VTrans does not have a program for Type II projects and noise analysis is not required for Type III projects.

#### **6. ANALYSIS OF TRAFFIC NOISE**

It is VTrans policy that all analysis of traffic noise shall be conducted as described in 23 CFR §772.11. Noise analyses for Type I projects may be performed for sound levels within actual or proposed VTrans right-of-way (ROW) limits, adjacent to potentially sensitive receptors or at such locations, beyond actual or proposed VTrans ROW limits, in areas that exhibit frequent human use of the types shown in the Noise Abatement Criteria. In the case of permitted developments, analyses may be performed within VTrans ROW limits or at locations, based upon said development plans, expected to become potentially sensitive receptor sites.

Analyses shall be conducted using the latest TNM (currently TNM 2.5) predictive computer program. A potential noise impact is identified when projected future traffic sound levels approach or exceed the Noise Abatement Criteria or when projected future traffic sound levels substantially exceed existing sound levels. Existing noise levels and future design year noise levels must be analyzed for all build alternatives carried forward for detailed analysis in the NEPA document.

The date of public knowledge for a Federal or Federal-aid highway project shall be the date of a Programmatic Categorical Exclusion (PACE) determination, the date of approval of a Categorical Exclusion (CE), or the date of a Finding of No Significant Impact (FONSI), or Record of Decision (ROD) for the project. Thereafter

VTrans will not be responsible for providing noise analysis or abatement for any development subsequently permitted in proximity to the approved VTrans project.

Analysis of traffic noise shall occur for Type I projects only. VTrans does not have a program for Type II projects and noise analysis is not required for Type III projects.

## **7. CONSIDERATION OF NOISE ABATEMENT**

Consideration of noise abatement shall occur for Type I projects only. VTrans does not have a program for Type II projects and noise abatement is not required for Type III projects.

When potential traffic noise impacts are identified on a Type I project, VTrans will consider and evaluate noise abatement measures and make determinations regarding the feasibility and reasonableness of such measures. VTrans will only provide noise abatement measures which are reasonable and feasible.

Feasibility determinations shall be based upon pertinent acoustical, physical, and engineering factors, including but not limited to:

- Physical and/or topographical constraints of the location: Where are receptors located relative to noise? Is there space for a barrier (berm and/or wall)? Are there reflecting/ interfering surfaces (ledges/buildings/pavements/trees)? Are there other noise sources present, etc.?
- Constructability: How large would the berm and/ or wall have to be? Would the barrier affect natural or cultural resources (impact habitat, obstruct drainage, etc.)?;
- Safety: Will the abatement feature create a substandard design element such as clear zone (AASHTO Roadside Design Guide) or sight distance (AASHTO Policy on Geometric Design or Vermont Design Standards)?;
- Maintenance requirements: Would barrier interfere with snow removal or drainage?;
- Technical constraints: Given constraints, can a barrier be built that will achieve at least a 5 dB(A) highway traffic noise reduction for the majority (over 50%) of impacted receptors? Generally a noise barrier which breaks the line of sight between a noise source and a receptor and extends uninterrupted at eight times the distance between the source and the receptor [4x in each direction perpendicular to the sight line] will provide approximately a 5 dB(A) noise reduction. Each meter of additional barrier height will contribute roughly 1.5 dB(A) of reduction. Typical over-the-road tractor exhaust stacks are about 8 feet above the ground.

Determinations relative to reasonableness shall be based upon pertinent social, economic, and environmental factors including but not limited to:

- Is it possible to achieve a substantial noise reduction? Noise abatement measures may not be reasonable unless a substantial noise reduction can be achieved. Generally, a 3 dB (A) change in noise levels is the margin of perceptibility for a person with normal hearing. A change of 5 dB (A) is readily discernable and a change of 10 dB (A) is generally perceived as a doubling or halving of the noise level. The VTrans noise reduction design goal is to achieve a 7 dB(A) reduction for at least 25 percent of the benefitted receptors in a common noise environment.

- How many potential receptors will benefit? Noise abatement measures may not be economically reasonable if only a very few receptors will benefit. The number of receptors in a project study area are as follows:

NAC Activity Category B: Single family residential units are considered one receptor. Structures that contain multiple residential units (apartments, condominiums, and duplexes) are considered to have one receptor per residential unit.

NAC Activity Categories C, D, and E: A single structure is considered a single receptor. For outdoor noise sensitive land uses (parks, campgrounds, cemeteries, trails, etc.) the number of receptors will be determined by dividing the frontage of the land use by the average lot frontage in the study area.

- Can abatement be achieved at a reasonable cost? Noise abatement measures may not be reasonable if the cost per benefitted receptor is high. It is VTrans policy that construction of a noise abatement measure is reasonable if the cost per benefitted receptor does not exceed \$40,000. For purposes of estimating the cost of highway noise barriers, a figure in the vicinity of \$30 per square foot of installed barrier should be used.
- What are the views of those who would benefit from noise abatement measures? Noise abatement measures may not be reasonable if the majority of benefitted receptors do not desire them. At least 50 percent of benefitted households and property owners surveyed must want the noise abatement measure. Surveys will be conducted in a way that responses can be documented, such as through the use of certified mail.

## **8. FEDERAL PARTICIPATION**

For Type I projects when traffic noise impacts have been identified, Federal funds may be used for implementation of noise abatement measures that have been determined to be feasible and reasonable. In determining the reasonableness of any abatement measure, cost effectiveness will be based solely on Federal and State/Local funding. Third party funding will be allowed only for providing functional or aesthetic enhancements to noise abatement measures in accordance with 23 CFR § 772.13(j).

Federal funds may also be used for noise abatement measures on Type II projects; however, VTrans neither has nor anticipates a Type II program as of the date of this policy. Should VTrans choose to implement a Type II program in the future, then this policy will be revised accordingly and approved by the FHWA prior to authorization and development of any Type II project.

## **9. INFORMATION FOR LOCAL OFFICIALS**

VTrans conducts public meetings and hearings early in the project development process, in order to gather input from effected communities. VTrans informs local officials of all potential environmental impacts of proposed projects, including the scope of potential noise impacts and any proposed mitigation. VTrans solicits input from involved residents during the project development and design process, and the opinions of potentially impacted residents are considered in reaching determinations regarding the reasonableness of noise abatement measures.

VTrans coordinates with regional planning commissions as well as town and municipal governments statewide to encourage the practice of compatible land use development. State and local governments are responsible for ensuring that developments are planned, designed, and constructed so as to avoid or minimize noise impacts. Local governments are responsible for regulating development in such a way that noise sensitive uses are

not permitted in areas adjacent to planned or existing highways. To assist municipalities, VTrans will provide information on future noise levels at developed and undeveloped properties to local officials by providing a copy of the noise analysis performed for any Type I project within their jurisdiction. VTrans will only provide noise abatement measures for developments that are permitted prior to the date of public knowledge of a Federal or Federal-aid project.

**10. CONSTRUCTION NOISE**

During project development, VTrans will identify any land uses or activities, as defined in the Noise Abatement Criteria, which may be affected by noise from construction of the project. In accordance with 23 CFR §772.19, VTrans will determine whether measures are needed to minimize or eliminate adverse impacts to the community and will incorporate any measures determined to be reasonable and feasible.

**11. REVIEW OF NOISE POLICY**

This policy shall be reviewed in a manner determined by VTrans at intervals not to exceed 3 years.

**APPENDIX A**

**Table 1 to Part 772—Noise Abatement Criteria**  
 [Hourly A-Weighted Sound Level\_decibels (dB(A)) <sup>1</sup>]

Activity Category	Activity Leq (h)	Criteria <sup>2</sup> L10 (h)	Evaluation Location	Activity description
A	57	60	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B <sup>3</sup>	67	70	Exterior	Residential.
C <sup>3</sup>	67	70	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	55	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E <sup>3</sup>	72	75	Exterior	Hotels, motels, offices, restaurants/ bars, and other developed lands, properties, or activities not included in A–D or F.
F	none	none		Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	none	none		Undeveloped lands that are not permitted.

<sup>1</sup>Either Leq (h) or L10 (h) (but not both) may be used on a project.

<sup>2</sup>The Leq (h) and L10 (h) Activity Criteria values are for impact determination only, and are not design standards for noise abatement measures.

<sup>3</sup>Includes undeveloped lands permitted for this activity category.

**APPENDIX 6: SEPTEMBER 26, 2019 PUBLIC OUTREACH MEETING MATERIALS**

# Public Outreach Meeting for Champlain Parkway Project

**WHEN:** Thursday, September 26, 2019  
5:30 PM – Open House  
6:00 PM – Presentation followed by Public Comments

**WHERE:** Contois Auditorium  
City Hall  
149 Church Street  
Burlington, VT

The Department of Public Works will present information about the Champlain Parkway project and is seeking input from the greater King Street and Maple Street neighborhood. Join your neighbors, City staff and our consulting team in a conversation about this project.

For additional information, please visit the project website:  
[www.champlainparkway.com](http://www.champlainparkway.com)

Interpreter services will be available at the meeting for the following languages: Bhutanese-Nepali, Swahili, Somali (Mai-Mai), Burmese, and French. To request additional interpreter services for this meeting, please call: 802-863-9094 or email: DPW-PineCustomerService@burlingtonvt.gov.



Department of Public Works  
645 Pine Street  
Burlington, VT 05401  
802-863-9094

DPW-PineCustomerService@burlingtonvt.gov

च्यामप्लेन पावर्वे प्रोजेक्ट बारे  
सार्वजनिक पहुँच सभा

कहितेः बिहिबार, सेप्टेम्बर २६, २०१९

५:३० बजे साँझ- खुल्ला निमंत्रणा

६:०० बजे साँझ- सार्वजनिक राय संगै प्रस्तुति

कहाँ: कॉन्टोईस सभागृह (Contois Auditorium)

सिटी हल १५९ चर्च स्ट्रीट, बर्लिंगटन, व्हीटी (149 Church St,  
Burlington, VT)

द डिपार्टमेंट अफ पब्लिक वर्क्स ले च्यामप्लेन पावर्वे प्रोजेक्ट को बारेमा जानकारी, प्रस्तुत गर्ने छ र उपल्लो किंग स्ट्रीट र म्यापल स्ट्रीटका छिमेकबाट योगदान को अपेक्षा गर्दैछ/यो परियोजना बारे छलफल गर्न तपाईं का छिमेकि हरू संग, सहर का कर्मचारी हरू संग र परामर्श समूह संग सामेल हुनुहोस।

थप जानकारी का लागी, परियोजना को वेबसाईट मा जानुहोस  
[www.champlainparkway.com](http://www.champlainparkway.com)

छलफल मा तलका यी भाषा हरूका लागी अनुवाद सेवा उपलब्ध हुनेछन।  
भूटानी/नेपाली, किरण्डी, स्वाहीली, सोमाली (माई/माई), यो सभा कालागी थप अनुवाद सेवा का लागी सम्पर्क गर्नुहोस। ८०२-८६३-९०९४ (802-863-9094) DPW-PineCustomerService@burlingtonvt.gov मा ईमेल गर्नुहोस।



Department of Public Works  
645 Pine Street  
Burlington, VT 05401  
802-863-9094

DPW-PineCustomerService@burlingtonvt.gov

Shirka Gaarsiinta Dadweynaha oo

Mashruuca Champlain Parkway

GOORMAA: Khamiis, September 26, 2019

5:30 pm- Open House (Guri Furan)

6:00 PM-Soo bandhigid oo la socota faalooyin ka bixin dadweynaha

XAGGEE: Contois Auditorium City Hall

149 Church Street Burlington, VT

Waaxda shaqada dadweynaha waxay u soo bandhigeysaa warbixin ku saabsan

Mashruuca Champlain Parkway iyo baahida gelinta xagga greater King Street

Iyo agagaarka Maple Street. Ka mid noqo dereskaaga, Shaqaalaha magaalada

Iyo kooxdeena la taliyayaasha ka wada hadlaaya waxa ku saabsan mashruucan.

Wixii warbin dheeraad ah, fadlan booqo websiteka mashruuca:

[www.champlainparkway.com](http://www.champlainparkway.com)

Adeeg turjumaan ayaad ka heli shirka luqadaha soo socda; Butanese-Nepali,

Swahili, Somali (Mai-Mai) Burmese, and French. Haddii aad u baahantahay

Adeeg turjumaan oo dheeraad ah, fadlan wac: 802-863-9094 ama email:

DPW-PineCustomerService@burlington.gov.



Department of Public Works  
645 Pine Street  
Burlington, VT 05401  
802-863-9094

DPW-PineCustomerService@burlingtonvt.gov

## Mkutano Wa Hadharani Unao Husu Mradi Wa Champlain Parkway

LINI: Alhamisi, Septemba 26, 2019

5:30 PM – Nyumba Wazi Kwa Wote

6:00 PM – Masimulizi yanayofuatiwa na maono ya umati uliomo

WAPI: Contois Auditorium

City Hall

149 Church Street

Burlington, VT

Idara la Wafanyakazi litatasimulia ujumbe kuhusu mradi wa Champlain Parkway, na wange penda maoni ya wakaaji wanaoishi King Street na pia Maple Street. Ungana na majirani, wafanyakazi wa mji, na wote wanaoshauriana katika mjadala wa mradi huu.

Kwa ujumbe Zaidi, tafadhali tembelea website ya mradi huu:

[www.champlainparkway.com](http://www.champlainparkway.com)

Huduma za tafsiri zitukuemo kwenye mkutano huu katika lugha ya: KiBhutanese-Nepali, Kiswahili, Kisomali (Mai-Mai), KiBurmeses, na KiFaransa. Ukihitaji huduma zaidi ya mtafsiri katika mkutano huu, tafadhali ita: 802-863-9094 au abrua ya pepe: [DPW-PineCustomerService@burlingtonvt.gov](mailto:DPW-PineCustomerService@burlingtonvt.gov)



Department of Public Works  
645 Pine Street  
Burlington, VT 05401  
802-863-9094

[DPW-PineCustomerService@burlingtonvt.gov](mailto:DPW-PineCustomerService@burlingtonvt.gov)

# Champlain Parkway စီမံကိန်းအတွက်အများပိုင်အဝေး ရောက်အစည်းအဝေး

သယ်ဆောင်မှု- ခြားသေပေးရေး၊ စက်တင်ဘာလ ၂၆ ရက်နေ့  
ညနေ ၅:၃၀ နာရီ - ဇွန်ပွဲ၊  
ညနေ ၆:၀၀ နာရီ - အများပြည်သူများ၏မှတ်ချက်များ  
ကိုနောက်လိုက်တင်ဆက်မှု

နေရာ - Contois ဇာတ်ရုံ  
မြို့တော်ရုံး (City Hall)  
149 Church Street  
Burlington, VT

The Department of Public Works လို့ခေါ်တဲ့အများပြည်သူလုပ်ငန်းဌာနမှ  
Champlain Parkway စီမံကိန်းအကြောင်းသတင်းအချက်အလက်များကိုတင်ပြပြီး  
King Street နှင့် Maple Street မှပတ်ဝန်းကျင်အိမ်နီးချင်းများ၏ အကြံပေး  
ဖြည့်သွင်းခြင်းများရှာဖွေနေပါသည်။ သင်၏အိမ်နီးချင်း၊  
မြို့တော်ဝန်ထမ်းများနှင့် ကျွန်တော်/မတို့ရဲ့အတိုင်ပင်ခံအဖွဲ့နဲ့ ဤစီမံကိန်းနှင့်  
ပတ်သက်ပြီးစကားပိုင်ဆိုင်မှုအတူပါဝင်ပါ။

နောက်ထပ်အချက်အလက်များသိချင်လိုပါက ကျေးဇူးပြု၍  
စီမံကိန်းဝက်ဘ်ဆိုက်တွင်ဝင်ရောက်ကြည့်ရှုပါ။ [www.champlaindpw.org](http://www.champlaindpw.org)

အောက်ပါဘာသာစကားများအတွက်အစည်းအဝေးတွင်  
စကားပြန်ဝန်ဆောင်မှုများပေးပါလိမ့်မည်- ဘုတန်နိုင်း-နီယိုလီ၊ ဆွာပီလီ၊  
ဆိုဖာလီ(ပိုင်ဆိုင်)၊ မြန်မာ နှင့် ပြင်သစ်တို့ဖြစ်ပါသည်။  
အဆိုပါဘာသာစကားများအပြင်အခြားဘာသာစကားပြန် ဝန်ဆောင်မှုများ  
တောင်းဆိုချင်ပါက 802-863-9094 ကိုခေါ်ပါ သို့မဟုတ်  
[DPW-PineCustomerService@burlingtonvt.gov](mailto:DPW-PineCustomerService@burlingtonvt.gov) ကိုအီးမေးလ်ပို့ပါ။



Department of Public Works  
645 Pine Street  
Burlington, VT 05401  
802-863-9094  
[DPW-PineCustomerService@burlingtonvt.gov](mailto:DPW-PineCustomerService@burlingtonvt.gov)

Réunion de Sensibilisation du Public pour le Projet Champlain Parkway

Quand : JEUDI 26 Septembre 2019

5:30 Ouverture

6:00 Présentation suivie des commentaires Du Public

Lieu: Contois Auditorium

City Hall

149 Church Street

Burlington, VT

Le Département des Travaux Publics présentera des informations concernant le Projet Champlain Parkway et cherche la contribution des résidents du voisinage des avenue King Street et Mapple Street. Venez vous joindre a vos voisins, aux agents de la ville, a notre équipe des consultants pour une conversation concernant ce projet.

Pour des informations supplémentaires, s'il vous plait visiter le site du projet [www.champlainparkway.com](http://www.champlainparkway.com)

Les services d'interprétariat seront disponibles durant la réunion pour les langues suivantes: Bhutanese-Nepali, Swahili, Somali (Mai-Mai),BURMESE, et le Français.

Pour demander des services complémentaires d'interprétariat pour le meeting, S'il vous plait appeller : 802-863-9094 ou envoyer un e-mail a: DPW-PineCustomerService@burlingtonvt.gov



Department of Public Works  
645 Pine Street  
Burlington, VT 05401  
802-863-9094

DPW-PineCustomerService@burlingtonvt.gov

# Champlain Parkway Project Burlington, Vermont

## Public Outreach Meeting For The Greater King Street and Maple Street Neighborhood

City Hall, Contois Auditorium

Thursday, September 26, 2019

5:30 P.M. – Open House

6:00 P.M. – Presentation Followed by Public Comments



# Introductions



- **Provide project update**
- **Provide an opportunity for the greater King Street and Maple Street neighborhood to comment on the project**
- **We have interpreters available and we will be pausing throughout the presentation to allow them to interpret. Each interpreter will introduce themselves.**

# Commenting Procedures

- **Mail:**



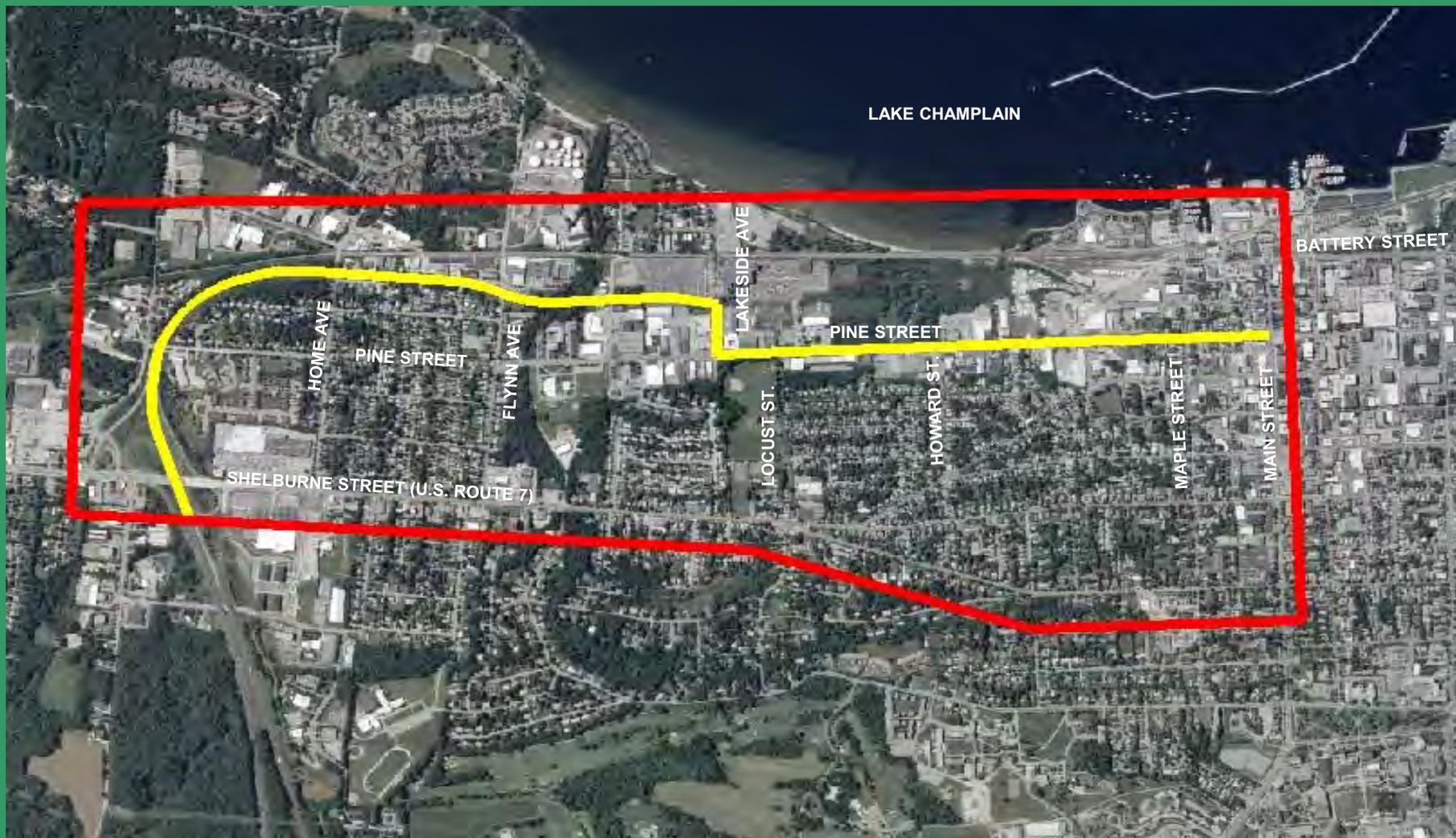
Mr. Kenneth R. Sikora, Jr.  
Environmental Program Manager  
Federal Highway Administration  
87 State Street  
Montpelier, Vermont 05602



Mr. Wayne L. Davis  
Project Supervisor  
Vermont Agency of Transportation  
One National Life Drive  
Montpelier, Vermont 05633

- **Email: [Burl-Comments@vermont.gov](mailto:Burl-Comments@vermont.gov)**
- **Oral comments accepted at tonight's Public Outreach Meeting only**
- **Written Comment Form provided at tonight's Public Outreach Meeting**
- **Comment period ends October 10, 2019**

# Project Study Area



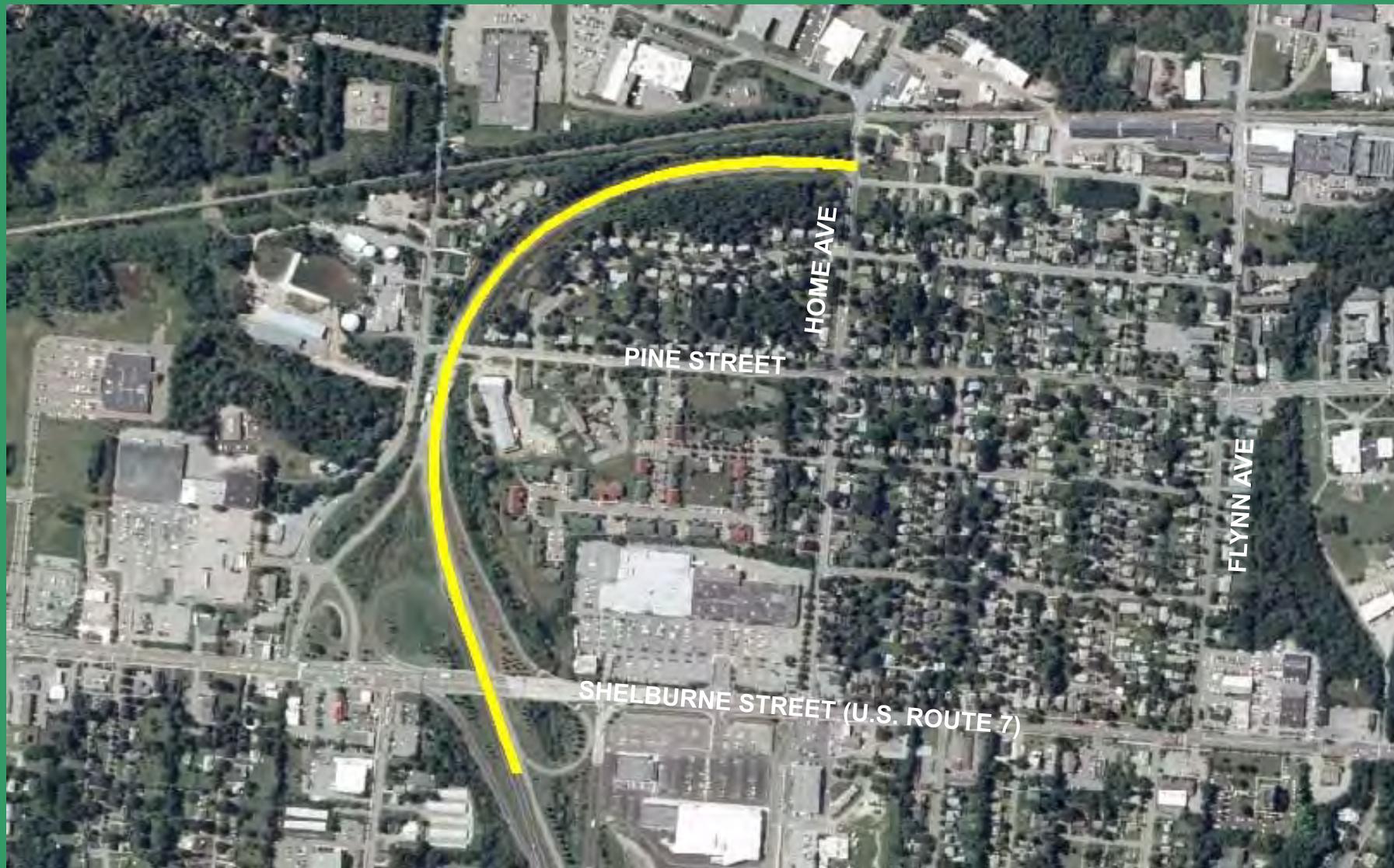
# Project Goals

- Improve access from the I-189/U.S. Route 7 interchange to the Burlington City Center District and the downtown waterfront area
- Improve circulation, improve mobility, improve safety on local streets in the project study area
- Provide traffic relief in the southwestern quadrant of the City of Burlington
- Reduce disruption to local neighborhoods and separate the local and through-traffic
- Reduce truck traffic from the local street network

# Project History

- **1960's: City & Vermont Department of Highways recognized lack of north/south transportation facilities**
- **1979: Final Environmental Impact Statement (FEIS)**
- **1997: Final Supplemental Environmental Impact Statement (FSEIS)**
- **2009: Final Supplemental Environmental Impact Statement and 2010 Record of Decision (ROD)**
- **May/June 2010: Four Public Meetings:**
  1. **Mobility**
  2. **Neighborhood and Community Issues**
  3. **Economic Development**
  4. **Environment**
- **November 2015: Public Meeting**
  - **Pine Street Safety Enhancements**
- **Permit Process and Other Public Meetings**

# Interchange Area



# Interchange Area Existing Condition



# Interchange Area Proposed Condition



# Home Avenue to Lakeside Avenue



# Project Description

- **Home Avenue to Lakeside Avenue:**
  - **New 25 mph City street**
  - **2-lanes with left-turn lanes at intersections**
  - **Traffic signals at Home Ave., Flynn Ave. and Sears Lane**
  - **Bicycle/pedestrian shared-use path**
  - **Lighting and landscaping**
  - **On-street bicycle accommodations**

# Home Avenue to Lakeside Avenue Proposed Condition



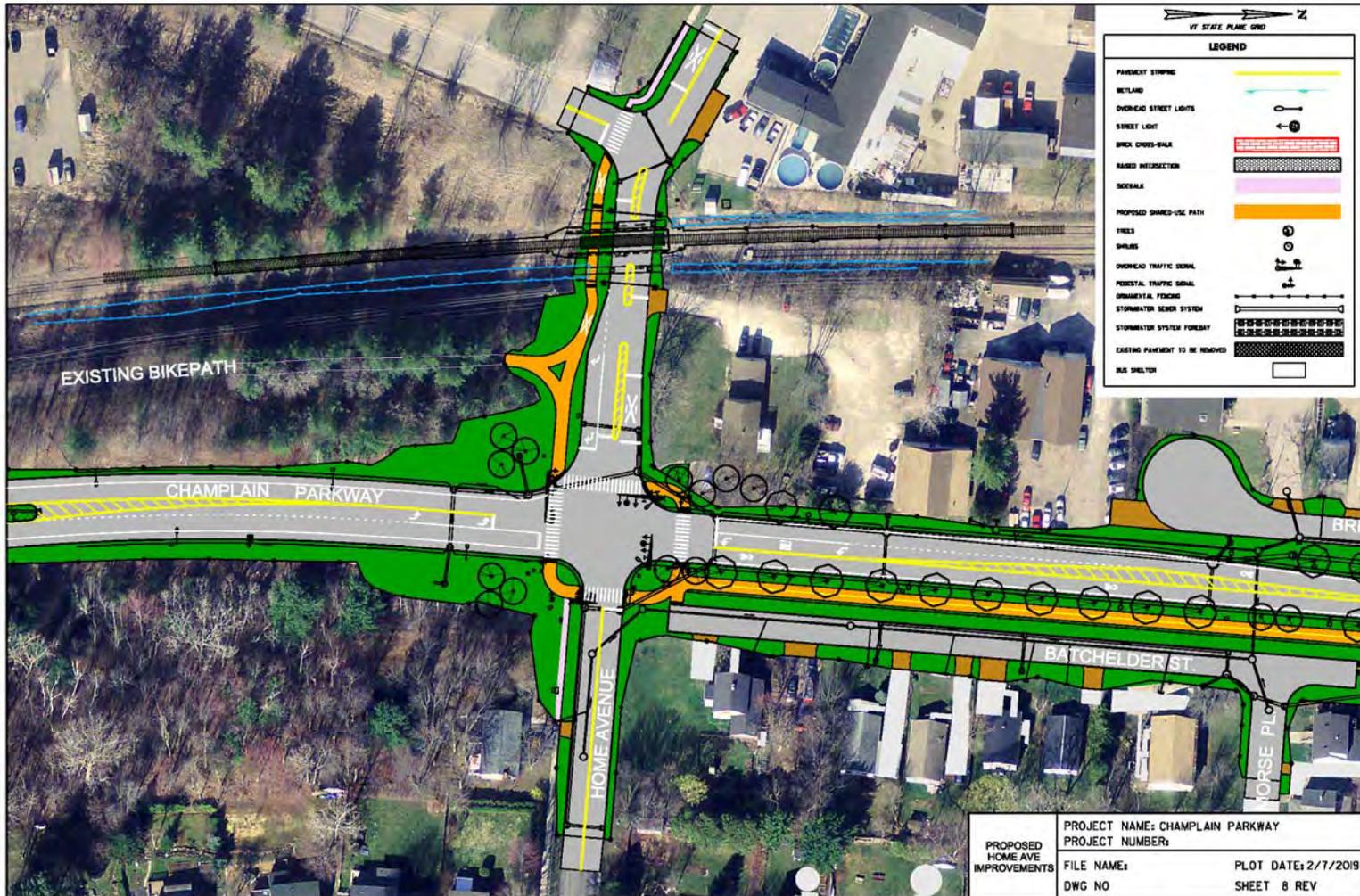
# Design Elements

- **Improvements to stormwater**
  - **Englesby Brook Sediment Load Reduction**
  - **Reduction of stormwater flow directed to City's Treatment Plant**
- **Highway-rail grade crossing improvements at Home Avenue, Flynn Avenue, Sears Lane, Maple Street and King Street crossings**

# Grade Crossing - Home Avenue



# Grade Crossing - Home Avenue



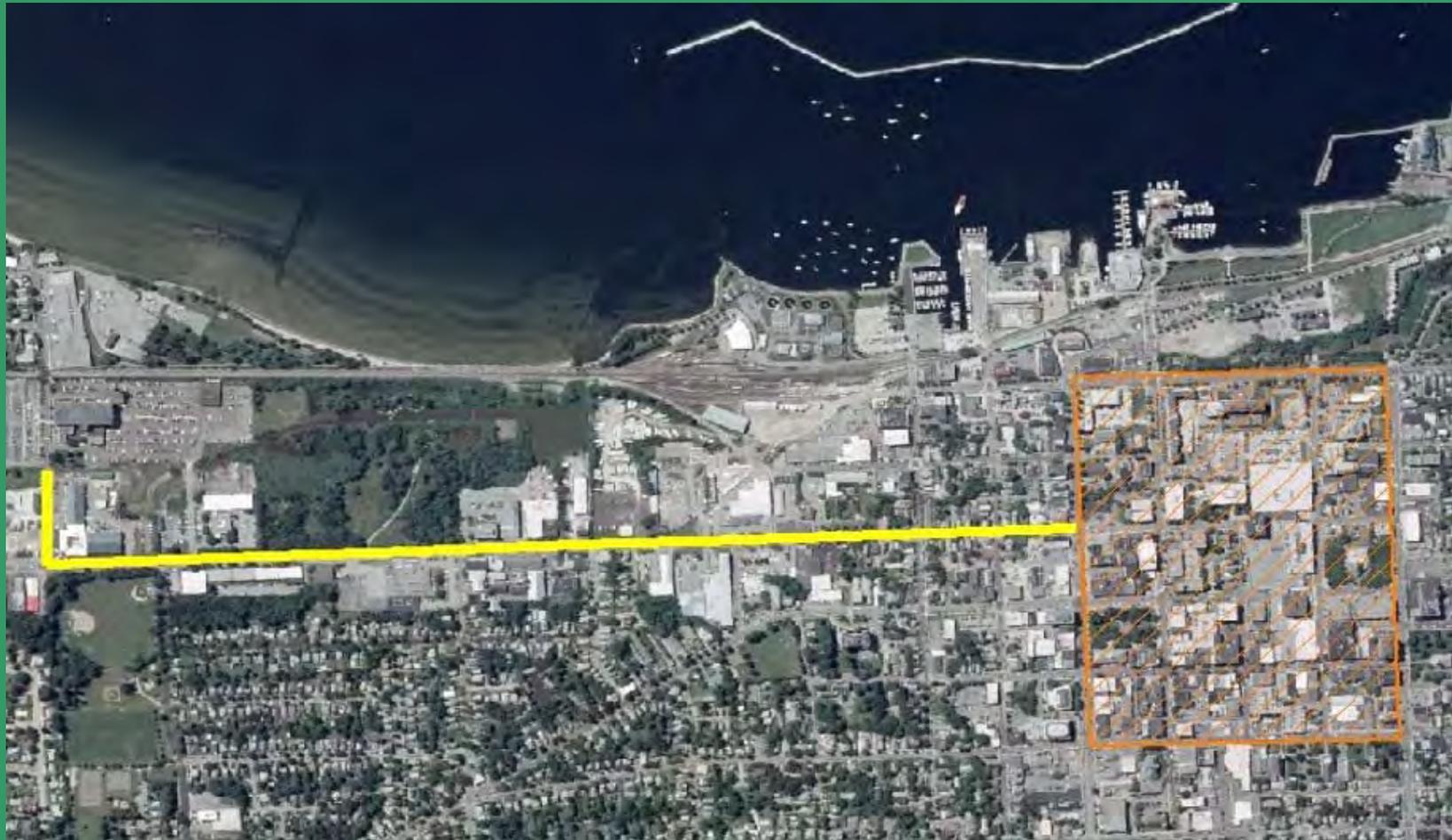
# Grade Crossing - Flynn Avenue



# Grade Crossing - Flynn Avenue



# Lakeside Avenue & Pine Street



# Project Description

- **Lakeside Avenue and Pine Street:**
  - Utilizes existing City streets
  - Lakeside Avenue reconstruction and drainage improvements
  - Repaving Pine Street

# Project Description

- **Lakeside Avenue and Pine Street (continued):**
  - **Continuous sidewalk along the eastern side of Pine Street**
  - **New shared-use path along the western side of Pine Street from Lakeside Avenue to Kilburn Street**
  - **Continuous sidewalk along the western side of Pine Street from Kilburn Street to Main Street**
  - **Raised intersections at Howard Street, Marble Avenue and Kilburn Street**

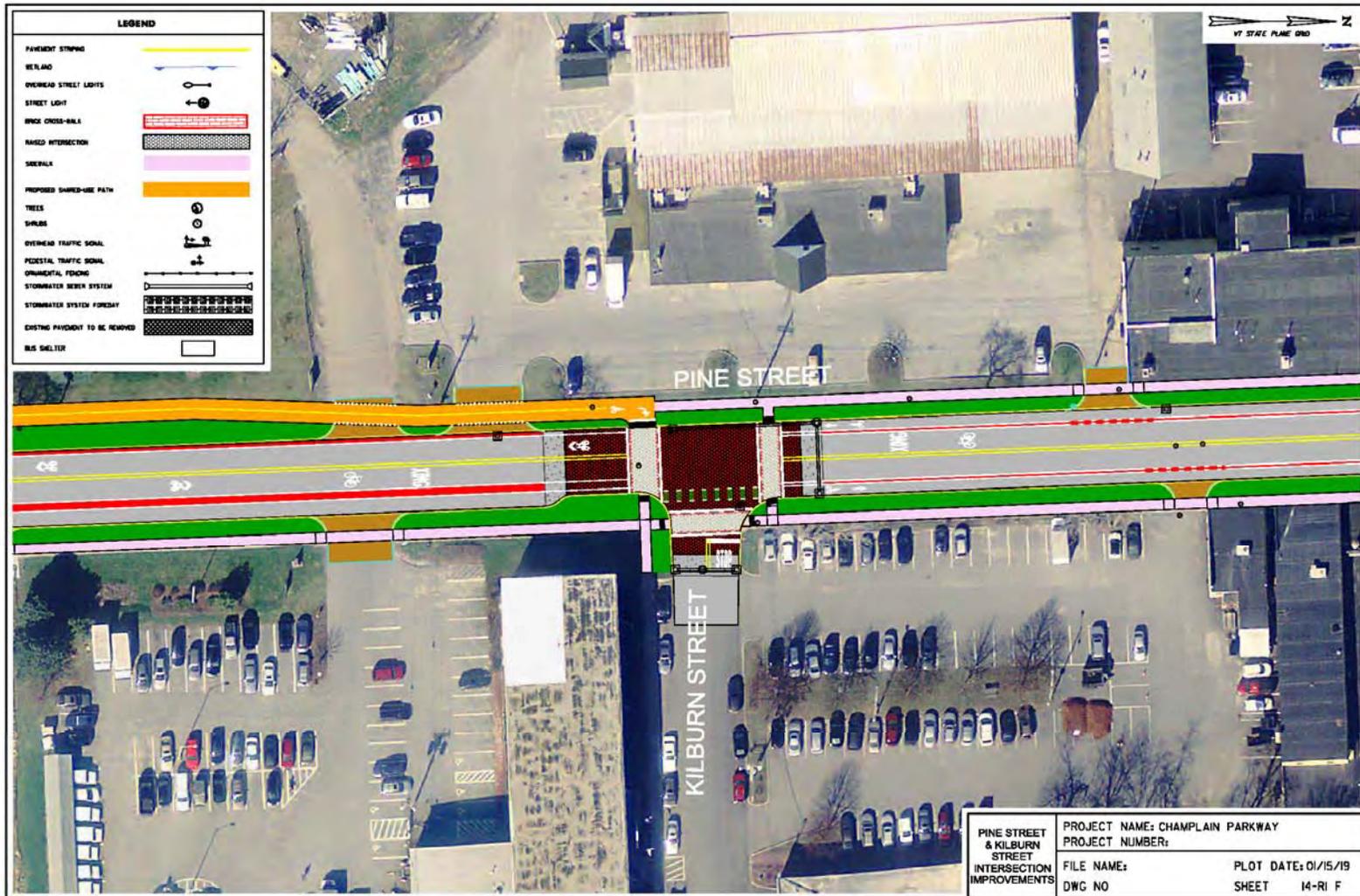
# Pine Street



# On-Street Bicycle Accommodations



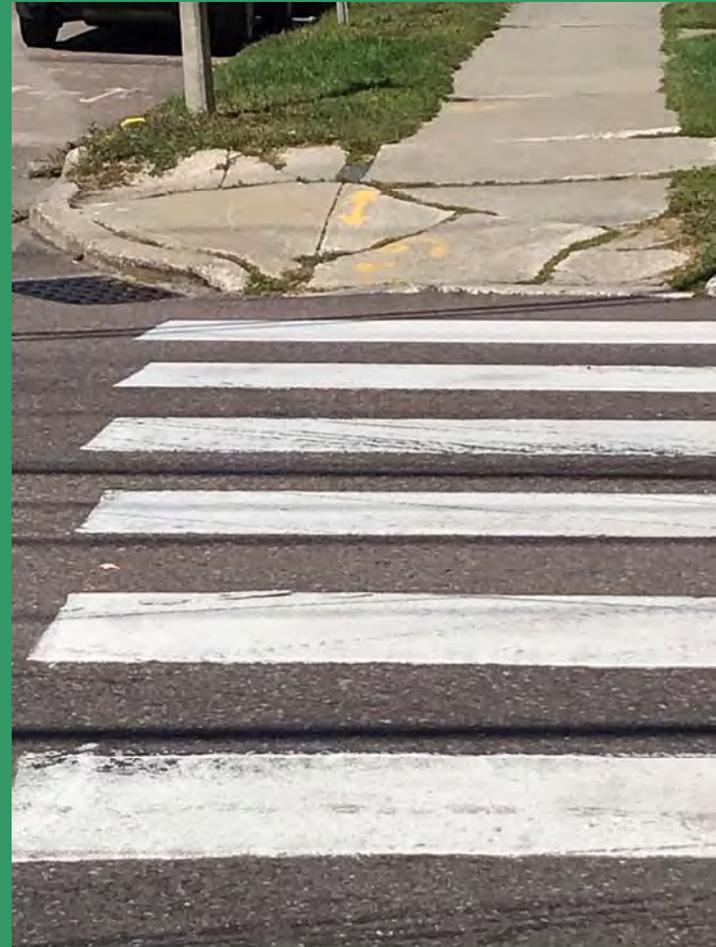
# On-Street Bicycle Accommodations



# Create Continuous Pedestrian Facilities



# Replace Existing Sidewalk & Ramps



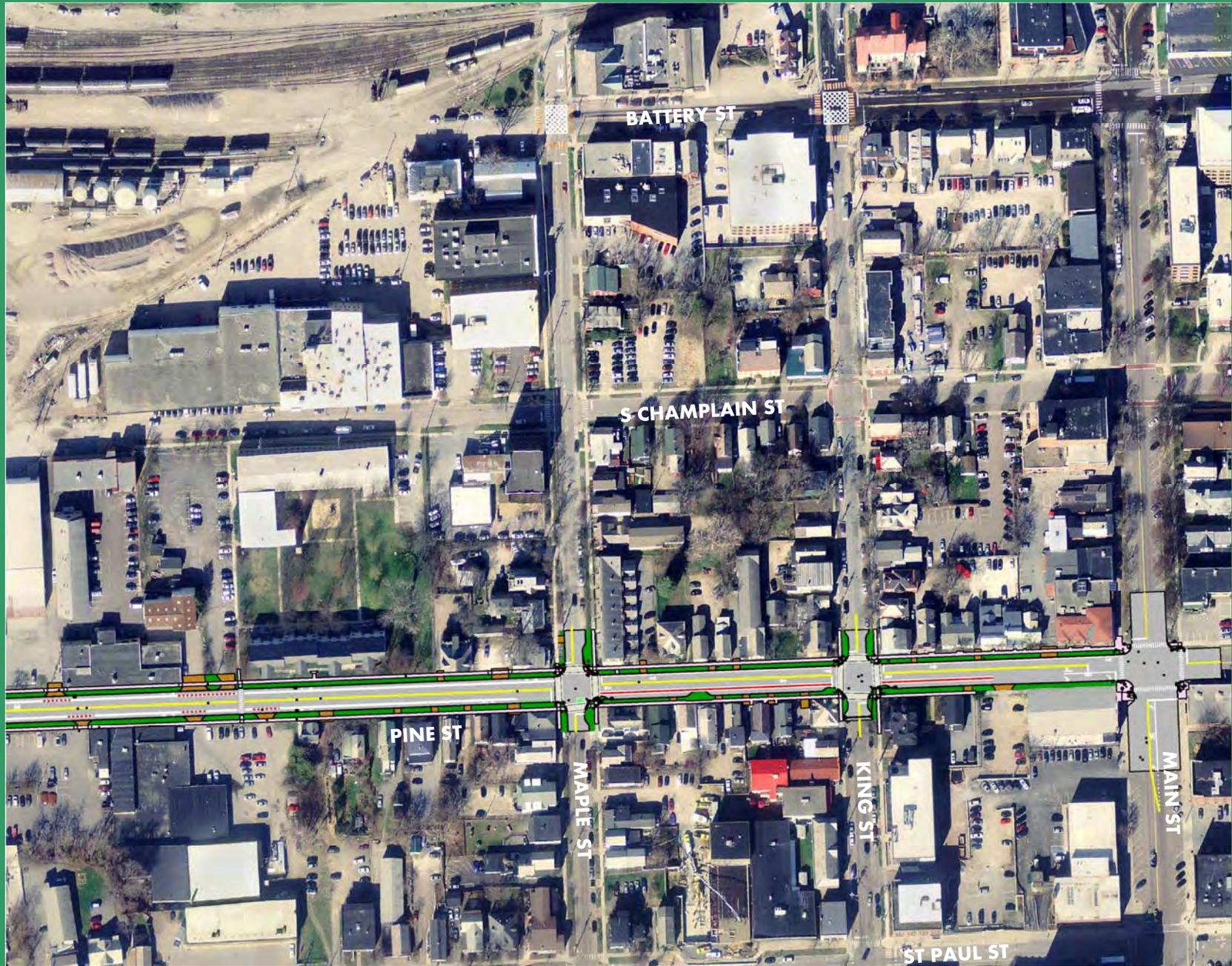
# Rectangular Rapid Flashing Beacons



# Raised Intersection Examples



# King Street and Maple Street Neighborhood



# Design Elements

- Synchronized traffic signals to optimize traffic flow
- New continuous pedestrian facilities along Pine Street
- Brick colored crosswalks at the Pine Street and Maple Street intersection as well as the Pine Street and King Street intersection
- On-road bicycle accommodations
- Maintain on-street parking in accordance with City ordinances.

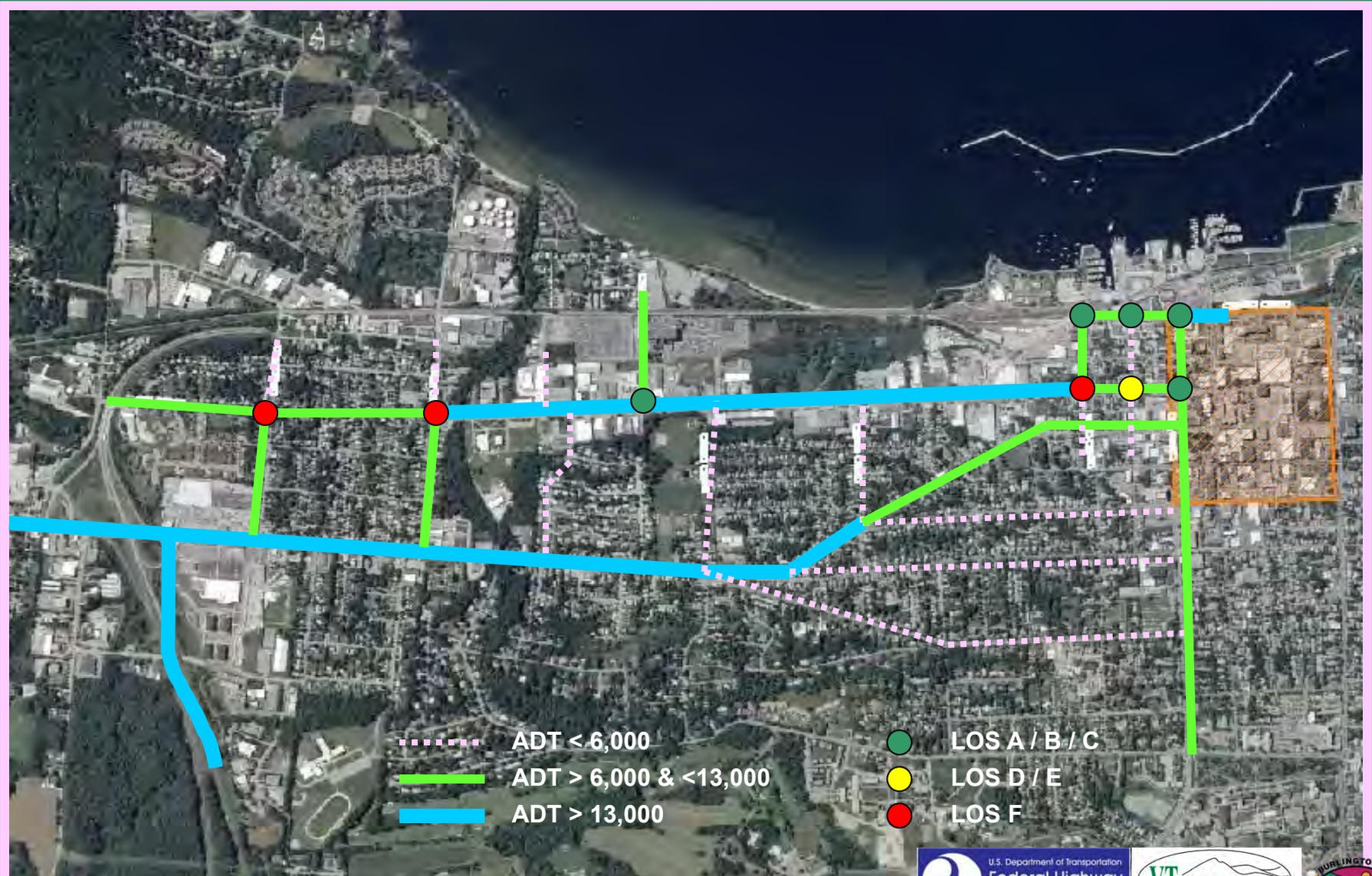
# Traffic



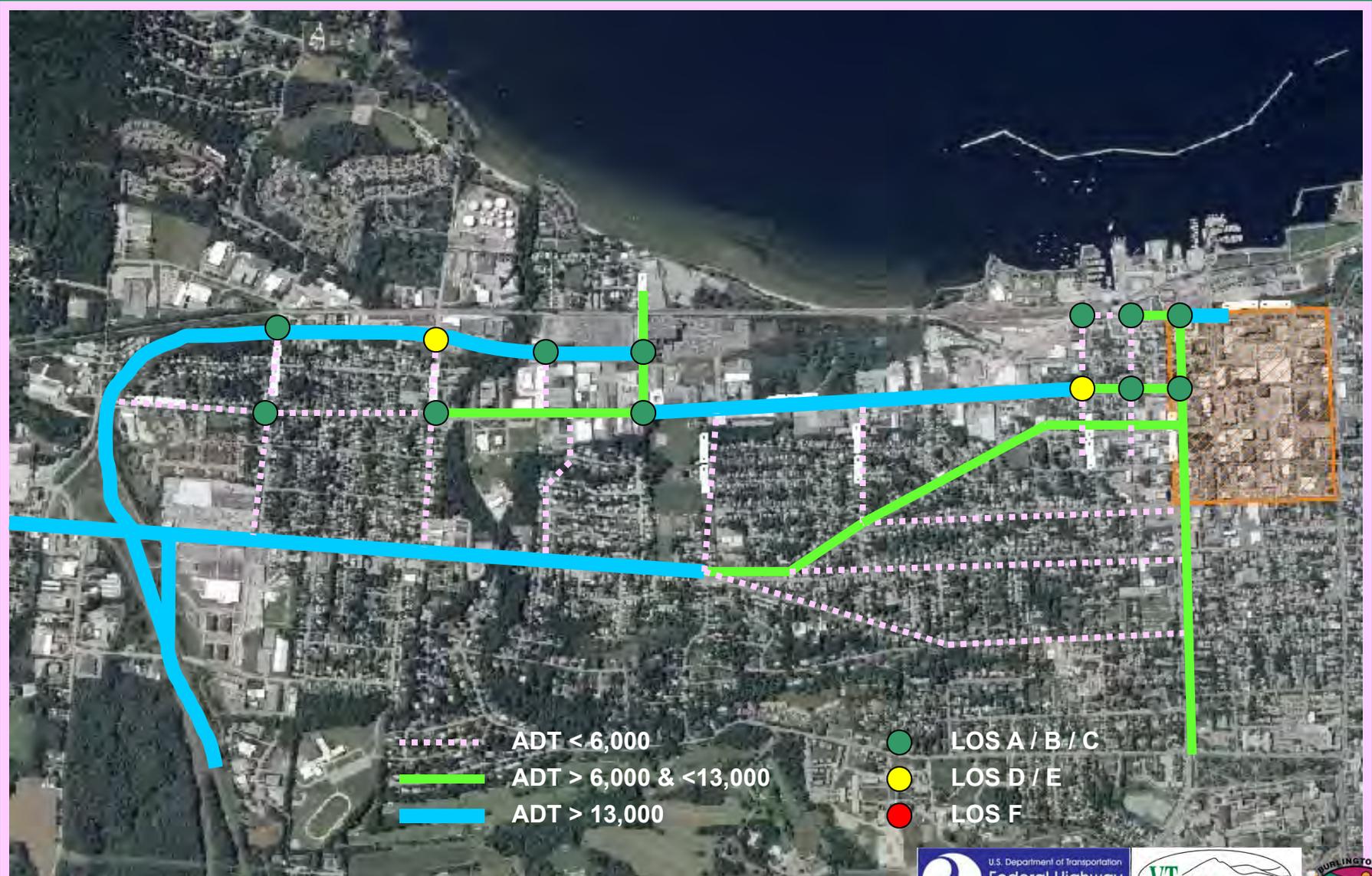
# Vehicle Traffic Volume



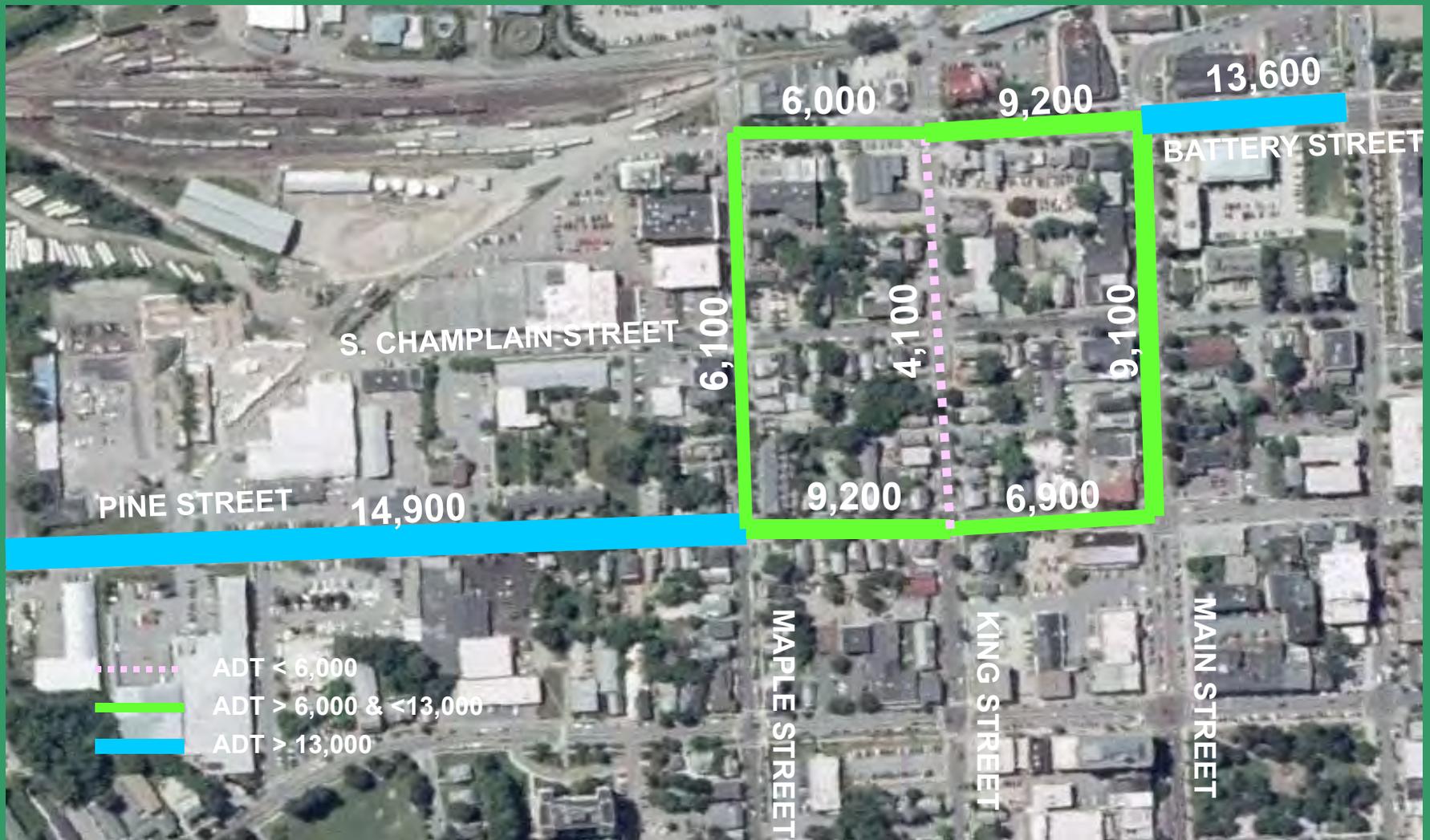
# No-Build Volumes



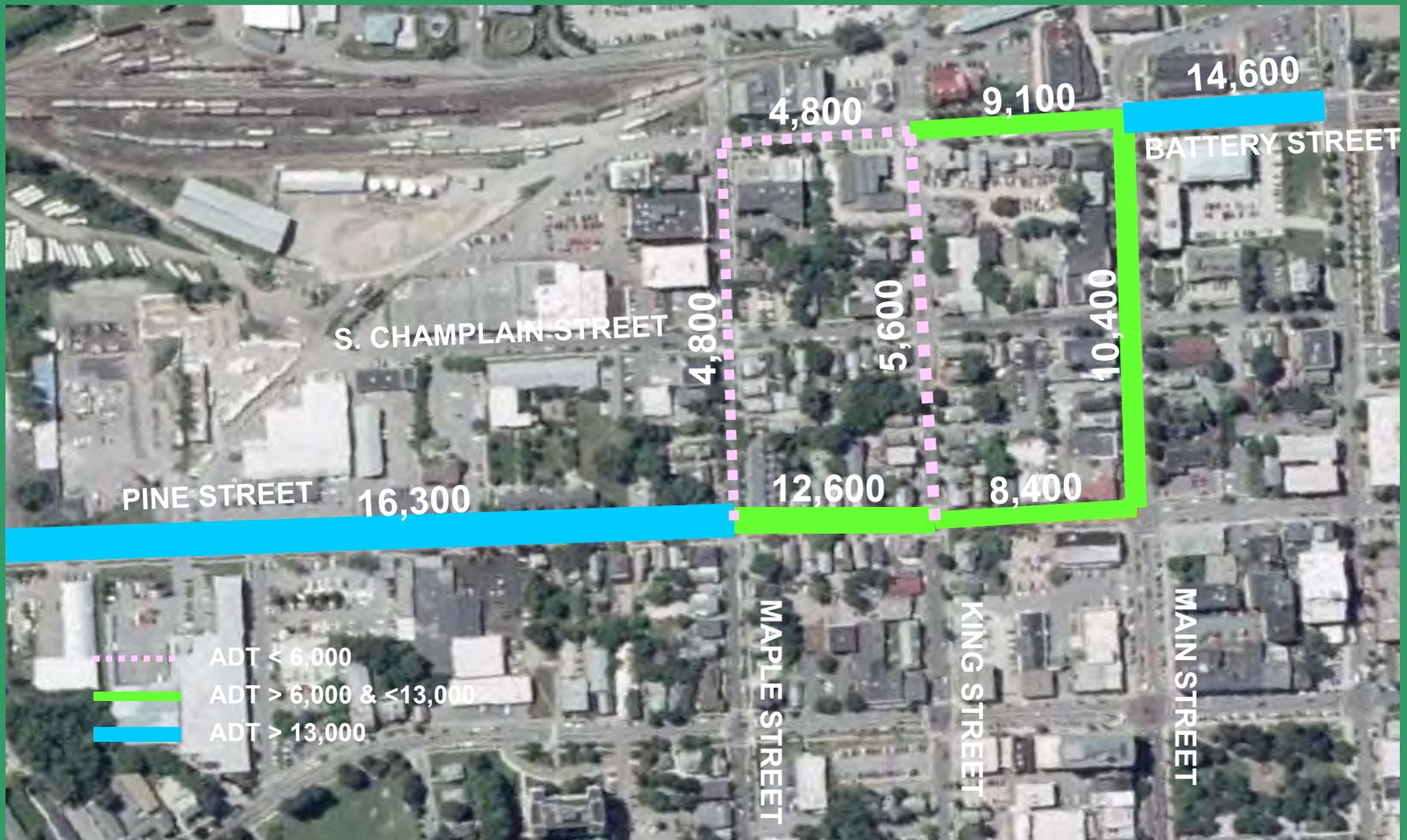
# Build Volumes



# No-Build Volumes



# Build Volumes



# Design Elements

- Pedestal style traffic signals at the Pine Street and Maple Street intersection as well as the Pine Street and King Street
- Exclusive pedestrian crossing phases
- Provided curb extensions to minimize the pedestrian crossing distance
- Emergency Vehicle Preemption (EVP) and Transit Signal Prioritization (TSP)

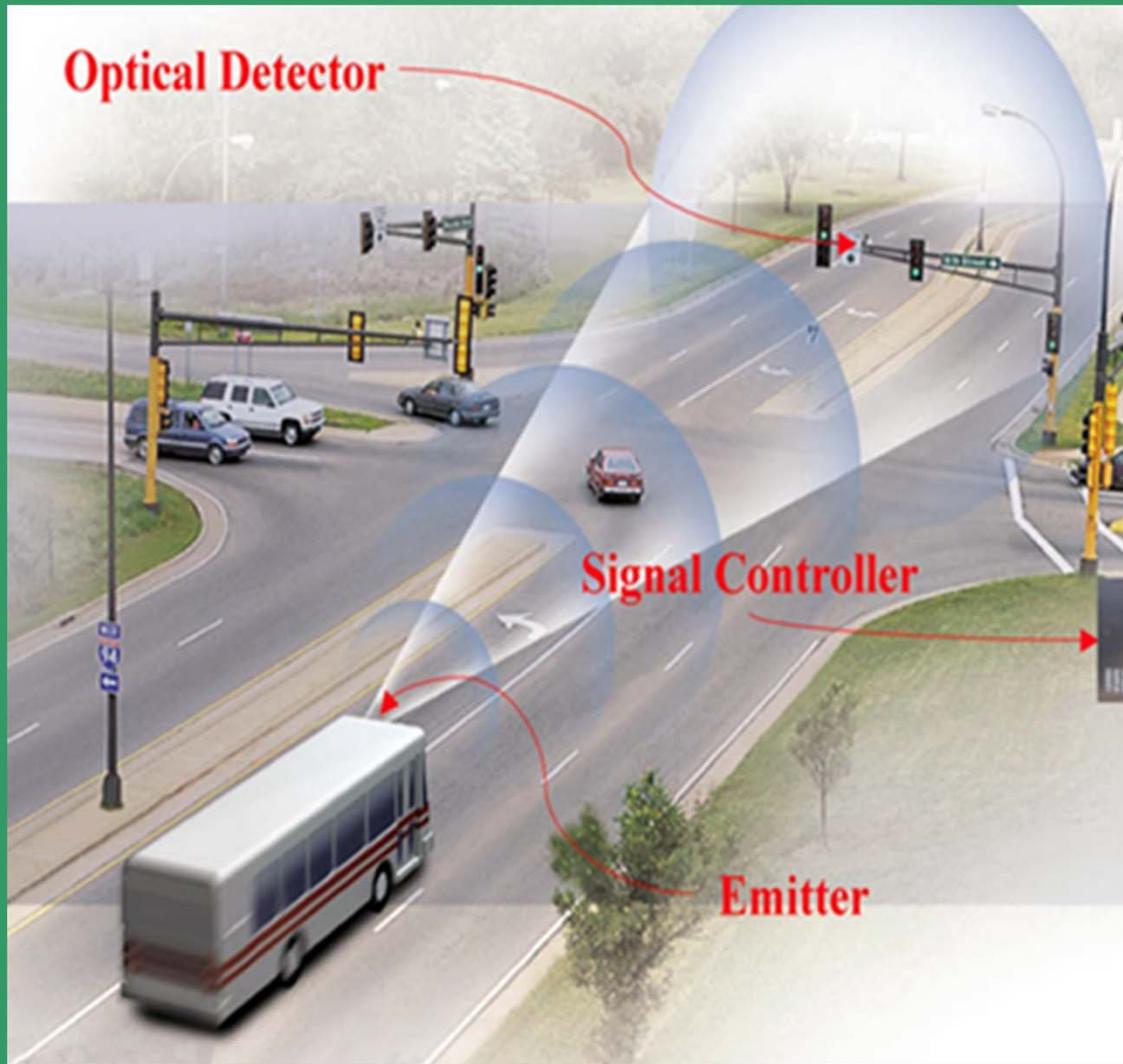
# Traffic Signals



# Pedestrian Signals



# Transit Signal Priority



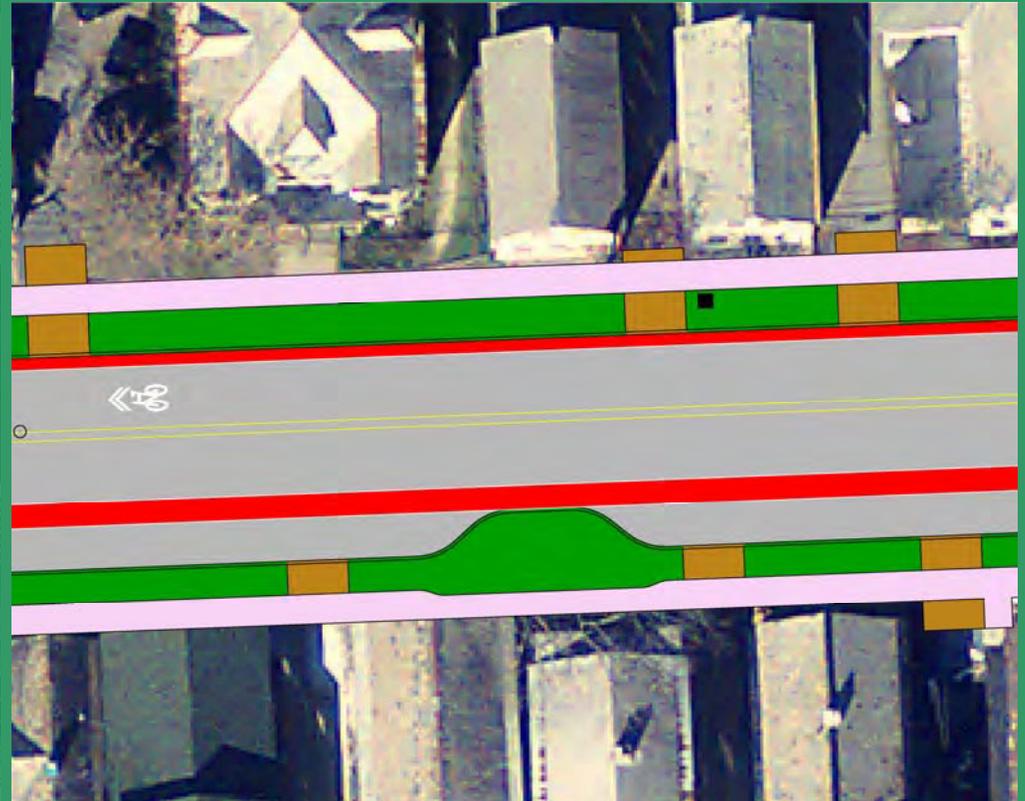
# Emergency Vehicle Preemption



# Design Elements

- Protect mature trees identified by the City arborist
- Relocating selected aerial utilities underground

# Protect Mature Trees



# Next Steps

- **Collect and assess comments**
- **Compile comments relevant to the greater King Street and Maple Street neighborhood**
- **Post responses on [www.champlainparkway.com](http://www.champlainparkway.com)**

# Comment Ground Rules

- **Please be respectful**
- **Please listen to others**
- **3 minutes per person**
  - **We want to give everyone an opportunity to speak**
- **If a topic has already been said, please fill out a comment card or wait to speak until all different comments have been heard.**

# Commenting Procedures

- **Mail:**



Mr. Kenneth R. Sikora, Jr.  
Environmental Program Manager  
Federal Highway Administration  
87 State Street  
Montpelier, Vermont 05602



Mr. Wayne L. Davis  
Project Supervisor  
Vermont Agency of Transportation  
One National Life Drive  
Montpelier, Vermont 05633

- **Email: [Burl-Comments@vermont.gov](mailto:Burl-Comments@vermont.gov)**
- **Oral comments accepted at tonight's Public Outreach Meeting only**
- **Written Comment Form provided at tonight's Public Outreach Meeting**
- **Comment period ends October 10, 2019**



**APPENDIX 7: 2019 PUBLIC COMMENTS AND RESPONSES**

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APPENDIX 7: SEPTEMBER 26, 2019 PUBLIC OUTREACH MEETING – RESPONSES TO COMMENTS

MAPLE/KING NEIGHBORHOOD

Date Received	Method	Name	Address	Comment	Response
10/7	Email	Andrew Saver	Pine Street	<p>As a resident of Pine St for more than 16 years I sincerely hope that the project can be completed in its current iteration. It would bring much needed traffic relief to our neighborhood and facilitate a more direct route into and out of downtown Burlington for commuters. I fully support the project and know that most of my neighbors on the surrounding blocks do as well.</p> <p>Thank you for your consideration.</p> <p>Andrew Saver Pine St</p>	<p>Your support for the Project is noted. This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
9/28	Email	James Lockridge	56 King St	<p>September 28, 2019 56 King Street Burlington, VT 05401</p> <p>Wayne L Davis Vermont Agency of Transportation One National Life Drive Montpelier, VT 05633</p> <p>and</p> <p>Mr. Kenneth R. Sikora, Jr. Federal Highway Safety Administration 87 State Street Montpelier, VT 05602</p> <p>I'd like to offer a public comment to the Champlain Parkway project in Burlington as a resident of lower King Street.</p> <p>I'm disappointed that the protected bike/pedestrian path ends at Kilburn Street and does not extend into the King/Maple neighborhood. I was told at the public meeting that this design decision was made to preserve on-street parking. I feel that this prioritizes a taxpayer-funded entitlement of free parking for people who can afford cars over the basic safety of all neighborhood children on bicycles. I perceive this as a shallow politically motivated decision rather than one built on values of improving the safety of transportation for all.</p> <p>I also wish there were roundabout-style intersections at King and Maple Streets, which keep polluting vehicles moving past homes rather than idling in front of them, and are known to be safer than traffic lights for pedestrians. If any kind of roundabout fit into those intersections, it would be closer to best practices for transportation safety and neighborhood wellbeing than old fashioned traffic lights would be.</p> <p>Thank you for accepting these comments into the record.</p> <p>Sincerely, James Lockridge (802) 373-2890</p>	<p>The proposed shared use path along the western side of Pine Street cannot extend further north due to design constraints and available width within the public right-of-way limits. The shared use path is designed in accordance with state and federal standards which indicated required offsets from the roadway and other obstructions such as trees, signs, and utility poles.</p> <p>The Project includes on-road buffered bike lanes between Kilburn Street and Maple Street, and shared lanes with a buffered parking lane between Maple Street and Main Street. The on-street parking on the east side of Pine Street between Maple Street and Main Street will be maintained for residents in the Maple and King Street Neighborhood. In addition, it would not be feasible to provide a shared use path or cycle tracks between Maple Street and Main Street due to the frequency of driveway openings and the potential for conflict.</p> <p>In consideration of the application of roundabouts for the Pine Street/Maple Street and Pine Street/King Street intersections, it was identified that a single-lane roundabout is not feasible to be constructed at either of these two intersections because of the physical constraints and existing built environment. Although mini roundabouts might be able to fit physically; they are not recommended for the intersections of Pine Street/Maple Street or Pine Street/King Street because of considerations related to the arterial function of Pine Street, truck/bus accommodation, traffic performance, vehicle safety and pedestrian/bicyclist safety.</p> <p>In regard to air quality, the traffic changes described in the LS DSEIS will reduce the impacts to air quality as stated in the 2009 FSEIS. A microscale analysis was previously performed and concluded that the project intersections will be below Vermont and NAAQS thresholds. The project will not result in an adverse impact to air quality for adjacent sensitive receptors.</p>
9/26	Spoken Comment	Susi Taylor	Maple Street	<p>My name is Susi Taylor and I live on Lower Maple Street. I have a hard time with this because I really do respect people's hard work and I am not a traffic person, I am not an engineer. I am a biker, a walker, a dog owner, and a long time Burlington resident and I do find it sort of curious that it never really has been made clear to me why this meeting is focusing on Maple and King Street. My opinion is that it's</p>	<p>The Champlain Parkway plans have been prepared by the City of Burlington's design consultants and reviewed by the Department of Public Works, VTrans, FHWA, and various environmental permitting agencies. Residents have had multiple opportunities to attend public meetings and the City has made additional</p>

Date Received	Method	Name	Address	Comment	Response
				<p>focusing on Maple and King Street because we are the lowest income neighborhood around. Understanding that, I come from a place I'm educated, I'm privileged, and I can't figure this stuff out. I go to the website and I come away with a headache. If Chapin weren't patient enough to answer some of my questions, I probably wouldn't even have the patience to be here tonight. But, having said that, my neighbors don't have time or ability. They are feeding their children, they are cooking their dinner, they are trying to just live their lives. <b>What I hear from many of my neighbors who do not have cars, the children who wait for the school buses in the morning, the parents who try to protect their kids is you take your life in your hands because cars don't stop. They don't pay attention. People are on their cellphones. We sit on our porch at night when the traffic is backed up on Pine Street down to South Champlain Street and yes, they're not going fast, but they're all on their cell phones. Nobody is paying attention to the pedestrians and what the answer is to fix that, I don't know.</b> I do have a couple of questions and I really can't get the information. <b>Some of them is the traffic numbers. It looked like roughly 3,000 increase. Where do those numbers come from? The EIS, hey come on. It's outdated, in my opinion. I don't understand. I think if we did an EIS currently it would look very different from what you all are working with and I would really. I think we should have a new EIS.</b> You mentioned curb bump outs. Interesting, we just had an experience with curb bump outs at the corner of St. Paul Street and Maple. They had to take them out because it doesn't work for traffic. I respect again you want green streets, you want I've forgotten the right term, but we want people walking and biking. We want people driving, but we want them all to do it safely. So, where are the curb bump outs? Where does the sidewalk end when you go down Pine Street on the West side? The railroad crossing at the bottom of Maple Street, the sidewalk stops there now. There's not a sidewalk to get across to the lake and Perkins Pier. Trucks now can't make a left hand turn from Pine on to Maple. I've seen traffic back up. I've seen accidents with cars, children, bicycles, walkers. I understand that left-hand turns are still going to be allowed from Pine Street and King Street and there will be no dedicated lane. I just want to say it's a nightmare and there can't be any restriction of or any increase in sidewalks or reduction of the lane there because trucks can't do it now. Thank you.</p>	<p>effort to provide alternative avenues to provide input and comment. In addition, a public hearing will be held at the conclusion of a public comment period during the present NEPA process.</p> <p>An analysis of traffic safety has been prepared as part of this LS DSEIS. Please refer to the corresponding sections of the document.</p> <p>The Record of Decision issued by FHWA in 2010 has been rescinded in order to reassess environmental justice concerns.</p> <p>The proposed curb extensions have been designed to accommodate the largest vehicles expected at each intersection. The objective of the curb extensions is to provide better sight distance, visibility and shorter crossing distances for pedestrians and to promote speed management through a more compact design. Considering the vehicle composition of traffic flow on Pine Street and side streets, and the City's policy for promoting Complete Streets concepts, curb extensions have been proposed where appropriate. One purpose of the Champlain Parkway is to remove truck traffic from local roads such as King Street.</p>
9/26	Spoken Comment	Donna Walters	Maple Street Pine Street St. Paul St. BHA Residents at Wharf Lane, Maple Street, Decker, Bobbin Mill	<p>My name is Donna Walters and I live at the intersection of Maple Street and South Champlain. I live in a Burlington Housing Authority building called Wharf Lane Apartments and I am speaking tonight on behalf of the Steering Committee for the Wharf Lane Residents Association. I also, being on the Steering Committee for that Residents Association, network closely with resident leaders at Decker Towers and Bobbin Mill. Bobbin Mill is on South Champlain Street and Decker Towers is on St. Patheul Street. The building I live in is a multifamily unit. There's people with disabilities, seniors, and people with children that live there. Decker Tower has mostly elderly and people that are disabled. It's actually the tallest building in the city, or in the state I guess. <b>The environmental concerns for families with children are mostly centered around biking to school safely and to the park that is down on Pine Street. Kind of like what the gentleman from Segways had to say, the disjointed bike and walk path is a problem and a concern for parents.</b> I would not let my children ride down a shared bike path. Kids are goofing off when they're walking to school and someone who is buzzing along going 15 miles an hour on a bicycle. A kid could just jump right out in front of that bike because his buddy pushed him out. It does not seem like a safe alternative for kids coming and going to school or the park. So it really seems like those really need to be separated in order to be safe. It seems to work on the bike path along the lake, but we're not dealing with traffic there. On Pine Street, you're dealing with traffic. The other thing is, is it protected? The shared bike path or shared use path.</p> <p>There is a buffer. That's considered a protected shared use path? The whole length of the street, from Main Street to the school? Can we ask questions and get answers or are we just giving comments?</p> <p><b>The concern that the whole length of the street to and from school for anyone who lives on Pine Street or in one of the neighborhoods that would feed on to Pine Street is a concern. The other thing that is a concern, the environmental increased health concerns for the elderly and disabled who are walking, using electric wheelchairs, and breathing car fumes. For folks who are using electric</b></p>	<p>The proposed shared use path was designed in accordance with state and federal standards to safely accommodate bicyclists and pedestrians.</p> <p>The shared use path is protected from Pine Street by a grassed buffer strip and vertical curb. This offset complies with state and federal standards. There will also be pavement markings on the path where it crosses driveways.</p> <p>In regard to electric scooter and wheelchair users, the shared use path and new sidewalk on Pine Street will be constructed according to ADA regulations and guidelines and will be continuous on both sides of the street. This includes providing minimum widths, curb ramps, and cross slope on the path and sidewalk. The existing sidewalk along Pine Street is not continuous on each side and is non-compliant and is impassable in some locations. The shared use path will be a paved bituminous surface, while the sidewalks will be poured concrete panels, consistent with the City's and VTrans construction standards.</p> <p>In consideration of the application of roundabouts for the Pine Street/Maple Street and Pine Street/King Street intersections, it was identified that a single-lane roundabout is not feasible to be constructed at either of these two intersections because of the physical constraints and existing built environment. Although mini roundabouts might be able to fit physically; they are not recommended for the intersections of Pine Street/Maple Street or Pine Street/King Street because of considerations related to the arterial function of</p>

Date Received	Method	Name	Address	Comment	Response
				<p>wheelchairs and scooters; they are more inclined to actually ride in the road because it safer for them to ride on a pathway that doesn't have a bunch of cracks in it like sidewalk. I've heard many stories of people who are on a scooter or in an electric wheelchair who either tipped over or sustained substantial damage to their wheels because of going over a curb or hitting a crack that dumped them over or broke their axle. It's not like car where you can just go to the garage and get it fixed in a couple days. It takes a lot longer to get an electric wheelchair or electric scooter fixed when you have an accident like that. So they're more likely to ride on the shared, what you're proposing as the shared use path, which is like a road. Is that correct? If it's like a sidewalk where you have blocks of cement that heave with the frost, that would be problematic. But if it's more like the road, like the bike path along the lake, that would be preferred alternative for them. However, if it's not protected, that's a problem because you've got cars buzzing by and people on bicycles going faster than someone in an electric wheelchair. There's two other points I would like to make. One is the elderly that are walking. I just want to touch on breathing fumes from cars that are idling. Right now it's a big problem where I live on Maple Street. I have a neighbor who lives on the Maple Street side of the building, she has asthma. A lot of old people have more sensitive respiratory systems and they get more sensitive as they get older. Many of them have COPD or asthma so they can't open their windows if there's traffic idling under their windows or it could literally send them to the emergency room and has. So for exchanging stop signs for traffic lights does not solve the problem with idling traffic. It seems to me that roundabouts would keep the traffic moving a little faster and prevent cars from idling under windows.</p>	<p>Pine Street, truck/bus accommodation, traffic performance, vehicle safety and pedestrian/bicyclist safety.</p>
9/26	Spoken Comment	Steven Marshall	Pine Street, Main Street	<p>My, my, my, what a huge project. My name is Steven Marshall, I'm a resident of Burlington. I'm very interested in community development. As a driver, I would love to be able to cruise down 189 and keep on going into town down that parkway, boy, that would be a really nice experience. I have to question, though, whether we really want to be investing so much money into a project which is intending to help people drive cars. Ok, we need to deliver trucks. In the near term, in the next 10, 20 years I supposed we are still using all that transportation infrastructure. It's our style, it's our culture, it's what we do. But we really do need to be looking at how to escape our dependence on fossil fuels and this encourages fossil fuel use. More detail, going down the scale here. If you look at Burlington, geographically, you notice that it's kind of captured by its geography: it's got a river on the north, it's got an interstate highway on the east, it's got an interstate-like highway on the south end. So, there are very, very few ways to escape except through these major highway channels. You've got 127, you've got Williston Road, you've got Shelbourne Road. One of the really nice things about Pine Street right now is that you can escape four different traffic lights by going down Pine Street. And I want to say to anybody that lives in that neighborhood, I do feel sympathy for your... you might be rejoicing that you're going to escape from all that traffic and I'm sorry about that, I don't know how we balance this. It looks, to me, like a perfect location for a roundabout right there where Pine meets this new road. I was just in Britain, experienced a lot of roundabouts – maybe a few too many – but it's a good location for that. I'm really, really disappointed that that intersection over there, Shelbourne Road and 189, that that's not a roundabout. Highway administration has got to look at roundabouts to replace cloverleaf; they work beautifully. Those are the roundabouts that I encountered in Britain that really worked. Anyway, please do not close Pine Street at its conclusion down there. Put in a nice roundabout, let us continue to be able to move through there. My final question is: what's happening to the property on Sears Lane? I'm part of the homeless camp down there, and we're anticipating having our camp bulldozed. We noticed a pattern that the city is developing property after property after property and we end up not having a place for people to camp. That's the last thing, thank you.</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/14 (hand dated 10/9)	Mailed Comment Card	Vicky Smith Porteous	Home: 136 Crescent Rd Work: 87 King St	<p>As Executive Director of King Street Center, I remain concerned about the present design of the Champlain Parkway. The EIS is outdated and does not address the environmental concerns and the negative impact of an increased traffic flow (37%!) on our low income neighborhood.</p> <p>I am troubled about the negative effect this project will have on the safety and quality of life of our families who live in the Maple Street/King Street neighborhood – most of whom live with low income.</p>	<p>This LS DSEIS was prepared to assess the Project's impacts on the environmental justice community in the Maple and King Street neighborhood.</p> <p>As part of this LS DSEIS, traffic operations and safety in the Maple and King Street neighborhood were assessed, and conclusions are presented in this document. Please refer to the appropriate sections of this document for a discussion on traffic aspects related to environmental justice.</p>

Date Received	Method	Name	Address	Comment	Response
				<p>Please take this factor into consideration! Thank you</p> <p>Vicky Smith Executive Director King Street Center <a href="http://www.kingstreetcenter.org">www.kingstreetcenter.org</a> <a href="mailto:Vicky@kingstreetcenter.org">Vicky@kingstreetcenter.org</a></p>	<p>The City and its consultants will prepare a public information plan to implement during construction. This plan will outline strategies to provide updates to neighborhood residents and stakeholders and minimize disruption. The plan will provide a conduit for neighborhood concerns to reach the Project team.</p> <p>This LS DSEIS concludes that there will not be a disproportionately high and adverse effect to the Maple and King Street neighborhood as result of the Project.</p>
9/26	Spoken Comment	Dahir Kassim	King Street, Maple Street, Pine Street	<p>Just a comment – thanks for having me here today. My name is Dahir and I’m an interpreter. And I’m engaged in the community every day of my life for the past five years. And what I actually know is about – we talk about all these ideas, yes, but there’s also some positive, too, I hear. A couple weeks ago we were at the old folks’ home and we were discussing about bike lane to be increasing and there was a lot of support within our group that we did agree with that one. And the reason for that is the safety. Yes, there is going to be vehicles all over the place, correct. But what I’m thinking about is, if I speak on behalf of my community, my people, most likely it’s an African family. They don’t have just two kids or one child. I’m speaking on behalf of my people and you will see a mother with eight kids trying to cross a road – they’re not even comfortable to drive their vehicle from Pine Street all the way to South Meadow. And that has been the major problem since day one and I’ve been hearing about this. And this is a good outcome. Yes, I understand that we are trying to renovate our roads, we are trying to fix our sidewalks and all that stuff did we actually thought to expand the sidewalk and also have a specific road for just bikers and people to be considerate with other civilians who are on a wheelchair, or what and so on. So, what I’m thinking about is for me, and for my people out there, I would like to ask: two more meeting, not one. Two more meeting. And I would like for you guys to come down to The Family Room. I will volunteer to organize some families and I also want them to be heard by their voice – I’m not the one who is going to speak out for them. And most of the people they are low income, as what I heard, yes, it’s correct. But the majority of the amount of the kids that makes it much different. And a lot of the drivers that don’t pay attention, maybe driving with their phone, or maybe not watching where they’re going – there’s police for a reason. Also, there’s rules and laws out there. So if they break it, yeah it could be good civilians who are walking down a road, he could get some information. But we want it down at Pine Street to be renovated because we have already seen it down at North Winooski Avenue, and it feels great to see that. Also bicycle have a right to share on the road. But I’m talking about people who walk down the street – that we need that expanded sidewalk. Thank you.</p>	<p>In regard to driving comfort and safety, the Project will provide signals at intersections to help facilitate the flow of vehicular traffic throughout the corridor. The speed limit will remain 25 miles per hour on Pine Street and will include signing and pavement markings in accordance with state and federal regulations. In addition, the Project will introduce traffic-calming measures such as curb extensions and raised intersections as well as marked bicycle accommodations in order to better define the roadway for all modes of transportation.</p> <p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p> <p>The Project includes improvements to pedestrian and bicycle facilities (newly constructed shared use paths, newly constructed concrete sidewalks, pedestrian signals, bike lanes, and other traffic calming features).</p> <p>Exclusive pedestrian phases have been incorporated into all traffic signal designs which allow pedestrians to cross the roadway while all cars are stopped.</p> <p>Separate bicycle facilities are not feasible on Pine Street between Maple Street and Main Street due to the available width of the street and public right of way. In addition, there is neighborhood residential parking and numerous driveway openings that would cause a conflict with a separated bicycle facility.</p>
10/2	Mailed Letter	Jack Daggitt	161 St. Paul Street	<p>Mr. Wayne Davis Project Supervisor VT Agency of Transportation One National Drive Montpelier, VT 05633</p> <p>October 1, 2019</p> <p>Dear Mr. Davis,</p> <p>This letter is in response to the Champlain Parkway outreach meeting held September 26 at the Burlington City Hall. This meeting was the first chance for public comment since 2006 and may be the last so it’s important that aspects of the project be thoroughly considered now.</p> <p>If a street connecting Shelburne Road and Lakeside Avenue is opened up it is foolish to think motorists will observe a 25 MPT speed limit on a smooth, freshly paved surface. Without roundabouts at critical</p>	<p>This LS DSEIS was prepared to assess the Project’s impacts on the environmental justice community in the Maple and King Street neighborhood.</p> <p>In consideration of the application of roundabouts for the Pine Street/Maple Street and Pine Street/King Street intersections, it was identified that a single-lane roundabout is not feasible to be constructed at either of these two intersections because of the physical constraints and existing built environment. Although mini roundabouts might be able to fit physically; they are not recommended for the intersections of Pine Street/Maple Street or Pine Street/King Street because of considerations related to the arterial function of Pine Street, truck/bus accommodation, traffic performance, vehicle safety and pedestrian/bicyclist safety.</p> <p>The proposed shared use path was designed in accordance with state and federal standards to safely accommodate bicyclists and pedestrians.</p>

Date Received	Method	Name	Address	Comment	Response
				<p>intersections we can only expect increased speed, air pollution, and danger to both bicycles and pedestrians.</p> <p>Shared use facilities for both bicyclists and pedestrians serve the needs of neither. Bicycles need protected bike lanes not just a white stripe on a road heavily traveled by motor vehicles.</p> <p>Pedestrians need safe a safe walkway separate from bicycles especially now that E-bikes capable of speeds in excess of 20 MPH will be coming into increased use.</p> <p>At one point, Briggs Street, Champlain Parkway, and Pine Street all run parallel north and south within a few hundred feet of each other. This is an unnecessary and wasteful duplication.</p> <p><b>My wife and I live in the King/Maple Street neighborhood and the latest iteration of the Champlain Parkway will have a negative impact on our health and safety. This also applies to the low-income neighborhood families that are served by the King Street Center directly across from our home and the laundromat down the street.</b></p> <p><b>The present version of the Champlain Parkway and its 2009 EIS is outdated and obsolete. It ignores environmental concerns and the impact on low income families. It should be abandoned or redesigned and an entirely new EIS developed to reflect the needs and laws not prevailing. The cost of this project is great enough that we should take the time to get it right.</b></p> <p>Sincerely, Jack Daggit 161 St. Paul Street #103 Burlington, VT 05401 (802) 540-0760</p>	<p>The shared use path is protected from Pine Street by a grassed buffer strip and vertical curb. This offset complies with state and federal standards.</p> <p>The street and public right-of-way width in the Maple and King Street neighborhood is not wide enough to provide protected bicycle facilities in accordance with state and federal design standards.</p> <p>The Project will include new, continuous sidewalks or shared use path along both sides of Pine Street constructed to ADA standards. If pedestrians desire to be separated from bicycles, they can cross the street and use the sidewalk on the other side.</p> <p>This LS DSEIS document concludes that there will not be a disproportionately high and adverse effect on the residents of the Maple and King Street neighborhood and adverse health and safety effects are not anticipated as a result of the Project.</p> <p>The LS DSEIS was initiated by FHWA in order to reassess the most current Census data and evaluate the potential for impacts on environmental justice communities within the Project study area. The analysis concludes that there are no low-income communities within the study area and no disproportionately high and adverse effects anticipated for the minority population in the Maple and King Street neighborhood.</p>
10/10	Email	Laurie Kotorman	59 King St	<p>To whom it may concern,</p> <p>I believe it is unfair to increase traffic in other neighborhoods, while greatly increasing traffic in ours with the Parkway project. We do not need more traffic, we already have too much.</p> <p>We hope for a fair and just decision on this matter.</p> <p>Sincerely, Laurie and Mark Kotorman owners 59 KIng St. Burlington, VT 05401</p> <p>Laurie laurieinv@yahoo.com www.nikken.com/wellnesspathways www.mypilatesvt.com 802-318-8388 802-985-5848 home office</p>	<p>The analysis and conclusions contained in this LS DSEIS indicate that construction of the Project will not result in disproportionately high and adverse effects to the Maple and King Street neighborhood. Please refer to the appropriate sections of the document for detailed analysis of traffic operations, volumes and safety considerations.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p>
10/8	Email	Mary J. Wright	King St / Maple St	<p>To whom it may concern:</p> <p>I live on the King Street/Maple Street section of the proposed Champlain Parkway. I don't believe this low income, high population dense area should have to bear the disproportional environmental, public safety and quality of life burdens for this project.</p>	<p>As part of this LS DSEIS, Census data was assessed and screened for environmental justice communities in accordance with FHWA guidelines. The assessment concluded that there are no low-income communities within the Project study area.</p>

Date Received	Method	Name	Address	Comment	Response
				<p>The proposed plan will lower traffic volume in the more affluent sections of the Parkway by as much as 72% while increasing an already high traffic volume and it's accompanying health and safety hazards by 37% in one of the most economically deprived and population dense areas in the State.</p> <p>A couple of traffic lights, no turns west on Maple or King Streets and a mixed use path will only worsen the air pollution, traffic congestion and public safety problems that already exist in this crowded neighborhood.</p> <p>I am requesting a new, fairer and more equitable design for this road project.</p> <p>Sincerely, Mary J. Wright 185 Pine Street Burlington, VT 05401</p>	<p>The analysis and conclusions contained in this LS DSEIS indicate that construction of the Project will not result in disproportionately high and adverse effects to the Maple and King Street neighborhood.</p> <p>Please refer to the appropriate sections of the document for detailed analysis of traffic operations, volumes and safety considerations.</p> <p>Regarding air quality, the traffic changes described in the LS DSEIS will reduce the impacts to air quality as stated in the 2009 FSEIS. A microscale analysis was previously performed and concluded that the project intersections will be below Vermont and NAAQS thresholds. The project will not result in an adverse impact to air quality for adjacent sensitive receptors.</p>
9/26	Spoken Comment	Vicky Smith	Lives Crescent Road. Works King/Maple	<p>Hi I'm Vicky Smith – South End, Crescent Road resident but I work smack in the middle of the King/Maple Street neighborhood. I'm the director of the King Street Center. I want to thank all the interpreters for joining us this evening and I'm disappointed that more families couldn't join us, but I do want to say that there was an outreach effort made to our families: interpreted materials, translated materials, so they could join us. It's a difficult time of evening and I'm hoping we can pull together an outreach endeavor at the King Street Center so that more of our families – we have one of our families joining us this evening – so they can join us. I guess what I have heard from families is less about the actual project and more about phasing. We use the words “we've been under siege” in that neighborhood - it's been untenable. And that impacts quality of life, it impacts children's performance in schools and at the Center and in their neighborhoods. It's just been a lot. So, I hope that whatever magical project comes forward. We are lucky to live in a city that can address infrastructure issues but we have to be sensitive to really well thought out phasing for the children and families that live there, many of whom do not – they speak five languages – but English might be five. And it's difficult to articulate just how difficult the noise and the danger of walking among these construction projects brings to bear on their lives. So, thank you and we'll let folks know when there's a meeting at the King Street Center, we look forward to it. Thank you.</p>	<p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p> <p>As discussed in this LS DSEIS, additional considerations and communications will be provided during construction of the Parkway in the Maple and King Street neighborhood.</p> <p>VTrans' policy is to continue public communication during construction and the standard resident engineer contract already includes ongoing conversation with neighborhoods within the Project area. In addition, the City and its consultants will prepare a public information plan to provide updates during construction and allow residents to voice concerns.</p> <p>Yes, there is disturbance during construction, but the community will have new facilities including ADA compliant sidewalks and sidewalk access ramps, new crossings, and improved circulation. Overall, the Project will create minimal temporary construction impacts but provide long-term improvements.</p>
9/26	Spoken Comment	Rick Sharp	177 Pine Street (business address)	<p>Could you go back to the map that shows where the bike path ends in front of Curtis Lumber, please? One of my concerns is that bike paths. My name is Rick Sharp, I run Burlington Segways. Our business is located at 277 Pine Street so we're very familiar with that area and the needs of the people there including the Farmer's Market. A lot of people are going down that street in that area. So, I want to see the area of the map where it goes in front of Curtis Lumber. One of my biggest problems with what's going on in the city today is that the bike paths that you installed are disjointed and then you dump people in the middle of nowhere and that's exactly what this is doing here. My belief is that there is enough space, I understand that further up Pine Street you cannot put a 10-foot path because there isn't enough space between the building and the street, specifically at the Carpet place, but you can extend the bike path. Most of the people coming up that pathway will go all the way into Burlington so don't just dump them into Pine Street here. My feeling is that you can extend that bike path all the way up to the entrance to Curtis and the other businesses there just before you get to the Carpet company. <b>But when you rebuild the sidewalk from there up to Main Street, don't put in a 3 or 4 foot sidewalk there. It should be as wide as possible and if you have to take out the green strip to do that, do that so we can run our segways up Pine Street into Downtown and everyone else can go up and down there.</b> Particularly on Saturday mornings if the Farmers Market is going to stay down there, there is a crowd coming down there. So don't just dump people onto the street there, make sure the sidewalk.... You gotta think about everyone coming all the way into downtown; don't just dump them at Kilburn. Thank you.</p>	<p>The proposed shared use path will extend the existing path from Home Avenue to Kilburn Street. The available roadway width and public right of way precludes extending the shared use path further north than Kilburn Street. The City continues to make improvements to bicycle paths throughout the City.</p> <p>The proposed shared use path was designed in accordance with state and federal standards that specify required slope, width, and clearance from obstruction on either side of the path.</p> <p>The grass strip provides a required buffer between the street and shared use path. In addition, the grass strip serves as needed surface area for stormwater infiltration, utility poles, signs, fire hydrants, and snow storage.</p>

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9/26	Written Comment Card	Rick Sharp	277 Pine St	The 10-foot wide multiuse path along the west side of pine Street should be extended north as far as possible (to north driveway into Curtis Lumber and others). Don't stop at Kilburn. From there north make the sidewalk as wide as possible (at least 5') so bikes can continue on the sidewalk all the way to Main St. If you need to take out green belt to do that and run the sidewalk all the way to the curb if necessary. Don't just dump bicyclists onto the streets.	<p>The proposed shared use path will extend the existing path from Home Avenue to Kilburn Street. The available roadway width and public right of way precludes extending the shared use path further north than Kilburn Street.</p> <p>The proposed shared use path was designed in accordance with state and federal standards that specify required slope, width, and clearance from obstruction on either side of the shared use path. In order to accommodate bicyclist and pedestrian traffic, a minimum of 8 feet is required, and 10 feet is recommended. It is not possible to provide this width between Maple Street and Main Street due to the available width between the curb and buildings.</p> <p>The grass strip provides a required buffer between the street and shared use path. In addition, the grass strip serves as needed surface area for stormwater infiltration, utility poles, signs, fire hydrants, and snow storage.</p>
9/26	Spoken Comment	Claire Leonard	South Champlain	My name is Clair Leonard, I live on South Champlain Street. I came to this meeting with questions. And a number of times, in response to people asking questions, instead of providing comments, you've said that this meeting is for giving comments. So, I suppose that my main comment here is, I would really like an opportunity to not just offer comments, but to ask questions in order to be able to offer more informed comments. Maybe I just missed other meetings, though it sounds as though many of them happened several years ago so, I might have just missed them. But this is the first meeting I've seen that is addressing the concerns of residents of these neighborhoods. <b>And I have a lot of questions about the methodology of the traffic studies, stormwater issues, economic concerns for the neighborhoods. And I would like an opportunity to ask those questions before I can offer more informed comments. So, I suppose my comment is that I would like a chance to ask better questions. Thank you.</b>	<p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p> <p>Please refer to the appropriate sections of the document for detailed analysis of traffic operations, volumes and safety considerations and other issues relevant to the Maple Street and King Street neighborhood.</p>
9/26	Spoken Comment	Charlie Messing	Pine & College	Charlie Messing. I live at Pine and College. So whoever's roaring down Pine, if they continue past Main Street, they'll pass my house. Sorry about these glasses, I had an eye operation, and everything is totally glarey, it's driving me nuts. Pardon. I've always looked at the dead end of Pine Street at Bank and I've been skeptical of making that street go through. Reconnecting the street, at this point, it seems to be between the arch that used to go down to the parking garage and the free press building and it will become a street: one lane either way and the bikes and people will be walking 20 feet to the left. That's pretty surrealistic to me, but reconnecting the street so that it can go to Pearl Street - I don't see the point. I agree with everybody, twenty people before me, yes, building a road, it is my dream. There is a reason that this thing is a stack of filing cabinets worth of material extending 60 feet up. It's a beautiful sculpture, one of my favorites in town, and it's about the folly of this. And we, as developer-minded people, looking forward to the future and activating all kinds of stuff, we love this idea because it's an idea: it's building something, it costs a lot of money. These are qualities. It is my dream that we do not build this, that we do not increase the traffic on Pine Street, that we try to keep cars out of town. Pine Street shouldn't dead end. I would like nothing more than all the changes that have been mentioned tonight. Or, just forget the whole thing and fix all the sidewalks in town. Thank you so much.	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/15 (postmark 10/10)	Mailed Comment Card	Rebecca Bernard	101 College St	<p>Pine to College are way too busy now!! No traffic lights why?? Someone will get hit + killed. We have many many elderly and disabled people people with canes + walkers here at 1010 College St and corner of Pine St.</p> <p>It's an unjust hardship to this neighborhood.</p>	<p>The Project will include signalized intersections on Pine Street at Maple Street, King Street, and Main Street. These signals will be coordinated to improve traffic flow. Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>As part of this LS DSEIS, Census data was assessed and screened for environmental justice communities in accordance with FHWA guidelines. The assessment concluded that there are no low-income communities within the Project study area.</p>

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					<p>The analysis and conclusions contained in this LS DSEIS indicate that construction of the Project will not result in disproportionately high and adverse effects to the Maple and King Street neighborhood.</p>
10/15 (postmark 10/10)	Mailed Comment Card	Jesse Porter	101 College St. Apt. 407	I believe that it is unfair to decrease traffic to other neighborhoods while freely increasing it in ours with this project. We do not need more traffic. We already have to much.	<p>The analysis and conclusions contained in this LS DSEIS indicate that construction of the Project will not result in disproportionately high and adverse effects to the Maple and King Street neighborhood.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway is expected to become the major routing for north-south through traffic in this area. The reassignment of the majority of through traffic to the Parkway will reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p>
10/10	Email	Susi Taylor	Maple St	<p>I am a resident of lower Maple street and am writing in regards concerning the Champlain Parkway. It is a bad design for many reasons, and I have been toldone consideration is" environmental justice." I am not sure what this means, but since we are one of the lowest income areas in the city and one that is already overwhelmed with cars and trucks, the idea of adding another 3,000 cars is ridiculous! In contrast, neighborhoods to the south which are generally higher income, and less diverse will see significant decreases in traffic. Many of my neighbors do not have cars and rely on walking or public transportation to get around. The fact that muach of this new road will not have a consistent bike lane is also ridiculous- bad design.</p> <p>I am also upset with the recent meeting.The timing of the meeting could not have been worse for many residents of our neighborhood who have young families and need to cook dinner and take care of the children, etc.Furthermore,the format of the meeting was problematic; we were not allowed to ask questions, and simply had to try to understand the speakers. IAt the "open time" prior to the meeting where there were "information baords posted around the room - there was no dates on the info so impossible to tell if the design had been changed since then- but most troubling was that i received confliting information from different respresentatives regarding the same question, so don't know who/what to believe. This meeting did nothing to "educate" or attempt to deliver any message that the people who live along the proposed Parkway matter in any way.The fact that only one meeting is being held further challenges the concept of public outreach and education.</p>	<p>Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.</p> <p>The analysis and conclusions contained in this LS DSEIS indicate that construction of the Project will not result in disproportionately high and adverse effects to the Maple and King Street neighborhood.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and</p>

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				<p>I also have to speak to the design of "bump outs" I have been told these are for the benefit of the pedestrians- so we don't have a large span to get across. This might make sense if there was actually space for them, but based on the fiasco we recently witnessed with bump outs at the corners of Maple &amp; St. Paul- it is a horrendously unsafe design. I can't count the number of vehicles now that try to turn onto Maple from Pine or visa versa and oncoming traffic has to back up (if it can), and vehicles constantly drive into or over</p> <p>It is my hope that additional outreach meetings will be held in the neighborhood at convenient times that allow for meaning full dialogue and answers to our many questions. Thank you  Susie Taylor  Maple St</p>	<p>through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway is expected to become the major routing for north-south through traffic in this area. The reassignment of the majority of through traffic to the Parkway will reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>There will be new ADA compliant sidewalks and/or shared use path along the entire project corridor.</p> <p>The proposed curb extensions have been designed to accommodate the largest vehicles expected at each intersection. The objective of the curb extensions is to provide better sight distance, visibility and shorter crossing distances for pedestrians and to promote speed management through a more compact design. Considering the vehicle composition of traffic flow on Pine Street and side streets, and the City's policy for promoting Complete Streets concepts, curb extensions have been proposed where appropriate. One purpose of the Champlain Parkway is to remove truck traffic from local roads such as King Street.</p> <p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p>

**OUTSIDE MAPLE/KING NEIGHBORHOOD**

Date Received	Method	Name	Address	Comment	Response
9/26	Written Comment Card	Stephen Marshall	101 College St	Why are we building new roads in the age of “leave it in the ground”?	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
9/30	Email	Andrew Simon	54 Locust St	<p>I would like to register the following comments on the impact of the current proposed design of the Champlain Parkway:</p> <ol style="list-style-type: none"> <li>1. As I stated at the meeting on 9/26, I am a low-income senior who lives one block east of Pine Street and just north of the Lakeside Ave/Pine St intersection. I do not own a car so I am frequently a pedestrian, a bicycle rider and a user of public transportation.</li> <li><b>2. The current design of the Parkway is outdated and should be revised through a new EIS process that reflects current standards and community priorities, including impact on low income residents and increased concern about climate impacts.</b></li> <li><b>3. Pedestrians and cyclists are disadvantaged and put in jeopardy by the current design. Shared use paths and "sharrow" segments do not create a safe environment for either pedestrians, cyclists or (in the case of "sharrows"), motorists. Separate walk and bike lanes should be part of the design from Queen City Park Road to Main Street and beyond.</b></li> <li>4. The dead end proposed for Pine Street at Queen City Park Road will cause undue disadvantage to the low-income neighborhood of South Meadow as well as the South Burlington neighborhood of Queen City Park. Why not a roundabout at this location?</li> <li>5. The current design harms the Englesby Brook watershed by increasing the flow through a large culvert and unnecessarily paving over more acreage, thus increasing run-off into the already-impaired waterway.</li> <li>6. I request further hearings to be held at locations throughout the proposed route of the Parkway, including my neighborhood, near the Lakeside Avenue intersection with Pine. The impact of the current design is considerable on many low-income residents the length of the route.</li> <li><b>7. I object to the format of the 9/26 meeting because presenters refused to answer questions from attendees.</b></li> <li><b>8. While I applaud your recruitment of translators for several languages, it is clear from the attendance of the 9/26 meeting that more must be done to include the voices of New Americans and other residents along the proposed route (including but not limited to the Maple/King neighborhood and South Meadow).</b></li> <li>9. The current design will have a serious negative impact on residents who live near or travel on Pine Street by increasing traffic volume, air pollution, wait times at intersections and noise.</li> </ol> <p>Thank you very much for taking these comments seriously and acting upon the above points. Please contact me if any clarification or elaboration of the comments is needed.</p> <p>Andrew Simon 54 Locust Street</p>	<p>The project design has been updated and several design enhancements have been incorporated as a result of public engagement and input. In addition, the Parkway has been significantly reduced in scope from the original four-lane design as conceived in the 1980’s.</p> <p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p> <p>Online and print advertising was utilized for the September 26, 2019 meeting, as well as door-to-door flyers and direct outreach to community groups.</p> <p>The LS DSEIS was initiated by FHWA in order to reassess the most current Census data and evaluate the potential for impacts on environmental justice communities within the Project study area. The analysis concludes that there are no low-income communities within the study area and no disproportionately high and adverse effects anticipated for the minority population in the Maple and King Street neighborhood.</p> <p>The project includes improvements to pedestrian and bicycle facilities (newly constructed shared use paths, newly constructed sidewalks, pedestrian signals, bike lanes, and other pavement markings in accordance with federal regulations.</p> <p>The Project’s design, which keeps emissions down and keeps traffic moving, should encourage lower-emission transportation.</p> <p>In regard to air quality, the traffic changes described in the LS DSEIS will reduce the impacts to air quality as stated in the 2009 FSEIS. A microscale analysis was previously performed and concluded that the project intersections will be below Vermont and NAAQS thresholds. The project will not result in an adverse impact to air quality for adjacent sensitive receptors.</p> <p>Traffic would have to double before there is a perceived change in noise. The 2009 FSEIS concluded that there are noise impacts anticipated at receptor locations along Pine Street near Jackson Terrace and Marble Avenue. However, due to spatial constraints, noise mitigation measures are not feasible. Other receptor locations do not exceed the Noise Abatement Criteria (NAC) and do not require mitigation.</p>

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9/26	Written Comment Card	John Creason	174 Home Ave	Living on Home Ave is like living 15 ft. away from a highway. Home Ave was not built for nor intended to handle the volume of cars that currently use it as a main commuter route in and out of the city as well as a trucking route. The current situation is not tenable and the people who live on Home, Flynn and Pine are suffering health effects from the constant noise and pollution.	Your support for the Project is noted. This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
9/26	Written Comment Card	Brynne Martin	20 Joy Drive #301 05403	The plan needs to be changed to consider the current community and the climate crisis. Roundabouts are the safest and most environmental choice for intersections. And the most extensive bike and walkway options are the safest for bikers and walkers as well as being the best choice for carbon emissions in our community. We need to be building infrastructure that boasts and encourages non-carbon transportation in the climate emergency we are in.	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
9/26	Written Comment Card	Jonathan Pratt	239 Riverside Ave 05401	Pine St. to Queen City Park Rd. is a safe and convenient route for bicyclists to get to Shelburne Rd. south of I-189. Bicycle-only access across the interchange will maintain safe passage past the interchange.	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
9/26	Written Comment Card	Charles Messing	101 College St (corner of Pine St) 05401	When bicycles zip past my elbow on the sidewalk, I find it more than annoying. That's <u>shared use</u> . I don't think it works. I also don't think we need <u>more</u> cars on Pine St. And Pine St. should not Dead End! We need <u>roundabouts</u> instead of traffic lights or 4-way stops! They would speed traffic up and make it much safer for pedestrians and bikers.	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
9/26	Written Comment Card	Charles Simpson	83 Summit Ridge	<p>1) You have disproportionately impacted the low-moderate income residents just east of Pine at South Meadow by closing Pine St. access to South Burlington.</p> <p><b>2) You have dumped the expressway traffic at King/Maple, an area with a high concentration of subsidized housing including the physically handicapped at Decker Towers.</b></p> <p>3) By running the limited access from Home to Lakeside you have precluded full economic expansion in the Enterprise Zone and affected the job opportunities of low-income neighborhood residents in the South End.</p> <p>4) By paving over much (200') of Englesby Brook you have deprived low and moderate income residents, including at the Flynn Ave co-op, of access to a natural area and increased their risk of being flooded out because the ability of the area to absorb rain water will be reduced.</p> <p>5) the 43 million of public funds being wasted on their poorly designed roadway should go for truly affordable housing for low-income Vermonters.</p> <p>6) Shared-use paths don't serve the needs of the physically handicapped, seniors, and those with small children. The concept is dangerous.</p> <p><b>7) You say synchronized signals will allow Pine to handle increased traffic volumes. But you also have several pedestrian initiated signals and priority technology that favors mass transit. Won't the combination make "synchronized" traffic flow impossible with resulting traffic congestion, exhaust problems, and time (?) in transit?</b></p>	<p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway is expected to become the major routing for north-south through traffic in this area. The reassignment of the majority of through traffic to the Parkway will reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project has always been part of the plan for years and has always been listed/incorporated into the City's planning projects and is consistent with City's planning goals. The Parkway is part of the City's economic development plan.</p>

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					<p>The combined impact of the Project creates space for new employment and creates access to these jobs.</p> <p>There will be improved access, across all modes of transportation, in the areas that have been zoned for economic development. The Project is not changing proposed uses and will provide additional access to these parcels.</p> <p>All sidewalks and share-use paths incorporated into the project will be designed in accordance with ADA guidelines.</p> <p>The Project's design, which keeps emissions down and keeps traffic moving, should encourage lower-emission transportation.</p>
9/26	Written Comment Card	S Marshall	101 College	Re-examine rail right of way between Pine & Battery to escape King/Maple issues	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
9/26	Written Comment Card	S Marshall	101 College St	<p>The Pine Street termination is problematic channeling existing traffic on to congested Shelburne Rd.</p> <p>Perfect location for a round-about.</p>	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
9/26	Spoken Comment	Steve Goodkind	NNE	<p>My name is Steve Goodkind, I don't live in the neighborhood but I am one of the people that probably instigated the meeting. This meeting was designed to get input for a very specific reason, that's environmental justice, and <b>I didn't hear any explanation as to what you're looking for or what people should be concerned about because there's a lot of things that were shown tonight but I suspect when you get the comments on them you're going to say it has nothing to do with environmental justice and that's your answer. I think you owe an explanation tonight as to what the criteria you're going to be looking at and what the implications of it</b> and I also think having one week to get comments back is unreasonable. I don't know what the rush is, but one week? I think a lot of people are seeing this for the first time and it's asking an awful lot to think you're going to get back something meaningful if you really want it. So I think you need to do some explaining as to what you're looking for at this meeting and what you're not looking for. Don't waste time and let people focus because I think most people don't have an idea of what's going on here as far as this meeting. *interruption from community in terms of when comments are due back* (clarifies) It's a little better. Anyway, I think you need to explain what this meeting is really about.</p> <p><b>You're supposed to be talking about if this is providing an un-proportional burden on the low income neighborhood that it goes through. That's what this is about. A disproportionate impact, that's what this is about, right?</b></p>	<p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street Neighborhood.</p> <p>The US Environmental Protection Agency (EPA) Office of Environmental Justice defines environmental justice (EJ) as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies."</p> <p>Environmental Justice (EJ) was evaluated as part of previous NEPA submissions, including the 2009 FSEIS. FSEIS and NEPA documentation was developed in accordance with FHWA Order 664023 and the Guidance on Environmental Justice and NEPA. EJ was considered at the time of these submissions per the guidance available at the time and is being re-evaluated today consistent with the current EJ guidance.</p> <p>EJ review protects low-income, minority, and/or tribal populations from disproportionately high and adverse human health or environmental impacts.</p> <p>Environmental Justice (EJ) populations are those that are minority, low-income, or tribal. A minority population may be present if the minority population in the area is "meaningfully greater" than the minority population percentage in the general</p>

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					<p>population. Low-income communities are defined by the US Department of Health and Human Services (HHS) poverty guidelines.</p> <p>The EJ analysis for this Project identified a minority community in the Maple/King neighborhood. Based on the HHS poverty thresholds, there are no low-income communities within the Project area.</p>
9/26	Spoken Comment	Andrew Simon	Pine Street Senior, low-income	<p>My name is Andrew Simon. I live one block east of Pine Street. Not in King and Maple, but near Callahan Park. I'm a senior, I'm a Ward 5 NPA Steering Committee member, I am low income. One of the things I would like to know, not so much about the Parkway plan because I've seen the plan before, but this process we're going through right now is how else will you be gathering data from those affected by the parkway? Low income people? Seniors? People who are not in the King and Maple area? Because there are certainly people in my part of Pine Street who are in those categories and affected by this. I am one block away from Lakeside where all of the traffic in the proposed plan will be dumped on Lakeside and then on to Pine Street so our neighborhood is going to be ground 0 in a certain way for the increase in traffic. My life will definitely be affected by this plan. I don't have a car, I am a walker, a biker, a public transit user, and I have a granddaughter who is five years old so all of those things are impacted by this increase in traffic. So <b>I guess I would very much like to know what the rest of this gathering input process is in a step-by-step basis.</b> The slide that was up there about this really only said we're gathering comments but didn't say where that's going to happen, when that's going to happen and to <b>what extent you are consulting people in other neighborhoods, outside of King and Maple because there's certainly people who are low-income people affected by the Champlain Parkway plan</b>, seniors and others who live further down Pine Street all the way to Flynn Avenue where the Flynn Avenue Co-Op is, Jackson Terrace, just around the corner from me. Many, many people who will be touched by this. So I guess besides just registering this comment, I am asking a question about this. Thank you.</p>	<p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p> <p>A formal public hearing and public comment period will also take place during this NEPA process.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p>
9/26	Spoken Comment	Carolyn Bates	Caroline Street, Tract 8 low	<p>Hi Everyone. Thank you very much for your time to do this. It was a lot of energy you had to put into this. I one, very importantly think, you certainly need to have more than one meeting. This is a 43 million dollar project and is going to disrupt the entire south end. I'm sorry. I'm Carolyn Bates. I'm a low-income Tract 8. I used to be low-income, with my business, in Tract 10 on Maple Street. I've been here since 1973 with my businesses. Also, I've been partially disabled four times when I've had to been in a wheelchair. One accident happened because of a bad sidewalk and I ended up needing a new hip from it. <b>This whole plan is not safe. It's slow, unsafe, expensive, and a lot of it is unnecessary.</b> Just look at how the bikes go. Have you really studied that bike path? Maybe you want to take a close up of this? <b>Going north, there's one part of your Champlain Parkway that doesn't even have a space for bikes. So does that mean they have to portage their bikes or carry them north?</b> Completely illogical. Completely illogical and completely unsafe for any children trying to walk. You do not want bikes with pedestrians and some points they're on the right-hand side and some points they're on the left hand side and then they're with the cars and then they're in a separate bike lane. Please. You must not use your present plan there ever. Now, we also have the King Street Maple Street which is our low-income, our lowest income, I think for the entire Burlington. We have 200 Section 8</p>	<p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p> <p>Bike lanes have been incorporated where they were determined to be feasible and fit within physical constraints and the right-of-way width.</p> <p>Separated bike infrastructure wasn't provided on Pine Street between Maple Street and Main Street because there isn't enough width available in this built-up City corridor.</p> <p>Shared use path designed with state and federal standards that specify required slope, width, and clearances from obstructions on either side of the path.</p>

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				<p>residents in this neighborhood; 21 different housing districts in this neighborhood. Are you paying any attention to them? They walk. If they need to get to City Market, they need to bus. And what have you done? You've dead-ended Pine Street with a roundabout the buses can't go around. So doesn't it mean then that the people south of home Avenue will no longer have a bus to take? What about all those people in South meadow? They need buses. A lot of them are disabled. I have maps also to show you with the housing. Now we get into stop lights. You know, the federal government has said in safety laws since this EIS. The safety laws say no federal highway can be built unsafe. A stoplight we know is unsafe. We've had two people killed in the last twenty years in this City because of a stoplight. Roundabouts have had no deaths anywhere in Vermont. And Roundabouts are 8 seconds to go through and stop lights, 30 seconds. And you're adding six more stop lights, so that estimates three more minutes slow time on Pine Street. <b>I think you should get a roundabout anyplace you want to put a stop light. They're faster, safer, 50% less money, they're greener because there's less pollution and none of us want more bad air to breathe. The maintenance is nominal where a stoplight is \$5,000 minimum a year and left-hand turns will be able to be made on King and Maple because the buses and trucks can go around a roundabout and not a stoplight. They're also bike friendly and pedestrian friendly and stoplights are not.</b></p>	<p>Bicyclists desiring to traverse a more efficient route will benefit from improved on-road bicycle accessibility along Pine Street.</p> <p>In addition to the shared use path adjacent to Pine Street, improvements include a northbound bike lane between Lakeside Avenue and Locust Street, shared lane markings, and buffered bike lanes for northbound and southbound cyclists between Kilburn Street and Maple Street.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>While the neighborhood does not meet the US Department of Health and Human Services (HHS) thresholds, a number of design features have been included in the Project to mitigate the impact of traffic on the community. These features include improved pedestrian and bicycle facilities, new, consistent, ADA compliant sidewalks and sidewalk access ramps, bicycle markings, curb extensions, raised intersections, rapid flashing beacons, and exclusive pedestrian phases.</p> <p>Exclusive pedestrian-actuated phases have been incorporated into all traffic signal designs which allow pedestrian to cross the roadway surface while all vehicles are stopped.</p> <p>The signals at intersections will help facilitate the safe movement of all modes of traffic through the corridor.</p> <p>In consideration of the application of roundabouts for the Pine Street/Maple Street and Pine Street/King Street intersections, it was identified that a single-lane roundabout is not feasible to be constructed at either of these two intersections because of the physical constraints and existing built environment. Although mini roundabouts might be able to fit physically; they are not recommended for the intersections of Pine Street/Maple Street or Pine Street/King Street because of considerations related to the arterial function of Pine Street, truck/bus accommodation, traffic performance, vehicle safety and pedestrian/bicyclist safety.</p>
9/26	Spoken Comment	Spencer Smith	Flynn Ave Coop Homes	<p>My name is Spencer Smith, I live at the Flynn Avenue Cooperative Homes on Flynn Avenue across from where the new City Market is and a block or so from Pine Street. Is there any chance we could see an image of that neighborhood? The Flynn and Pine Neighborhood? Where the plan is to go through? Flynn Avenue and Pine, that area. That's it! That one we just saw. I think, let's see, yeah. No. Unfortunately, this is an old thing and it doesn't show City Market, which is a big presence. You can see the railway across at the top, then those grey-roof buildings are old industrial buildings that now have offices in them. Then there's parking</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>

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				<p>and then you'll see there's a green space and across from that green space, if we could see, is the Flynn Avenue Cooperative Homes, which is low/moderate income. At least half of us have Section 8 in some form and five years ago, we or the city and through some other places, we outlawed smoking because we have 20 children and we know that second hands smoke is very dangerous for children. But now, we're going to have a highway that goes through our neighborhood. We see that intersection of Flynn and the proposed Parkway and up on the left is the City Market (just this side of the railway) is the City Market; these are all old buildings that were torn down. We have a concern that the pollution of the neighborhood is going to become worse for the children. We already have very heavy traffic now on Flynn, because of City Market and also the large tankers and all the moving vans that are down that side of the railroad. The problem is, when I moved here, into the Flynn Co-Ops from Montpelier in 2007, there were very few children in the co-op and that's the way it was from the founding. But, because of certain legal issues that came up, we now have had 20 children for a number of years. They range from birth to teens, people 15 and 16. So I'm very concerned about that. I thought there was going to be a meeting where we could bring, in the area, probably at City Market, they have a large space we could use. Where our members could come. They all work, they have little children, they couldn't come downtown at this time of day. They're busy feeding their kids and laundry and everything. So I just feel very concerned that there's not going to be a chance for people in that neighborhood. Also, there's the Raymond Place is it South Meadow Housing which is also largely low-income. There are many children in the neighborhood because of the Champlain School and they're walking to work and walking to school. The kids are walking to school and the traffic is very heavy. I'm concerned that it will become worse. Also, we'll lose that wildlife area, which is we see fox, we see deer, we see squirrels. Thank you.</p>	
9/26	Spoken Comment	John Creason	174 Home Avenue	<p>Hi, My name is John Creason. I live at 174 Home Avenue. I speak for myself, a parent who works with young children; and a lot of my neighbors. A lot of them have children as well. Neighbors from Scarf Avenue, Home Avenue, South Meadow, that sort of area. If we want to talk about safety for kids, we try to walk our children to school, as well as a lot of our friends. Right now, there's so much tractor trailer traffic on Home Avenue, trying to turn on to Pine. Same thing with Flynn. We have a system that one of these gargantuan trucks come to the intersection while we're waiting to cross, we have to back up because multiple times people have almost been hit. This is the reason the project's going in. To try and get traffic off these streets. Also, the noise, the pollution, all the studies have shown that Home Avenue, Flynn, and that area of Pine was never constructed or ever intended to handle the kind of volume of traffic it gets. There's so much traffic, huge traffic trailers, FedEx, everyone is online shopping there's all kinds of things trying to get down to the industrial part of the South End that is extremely dangerous and loud for the people trying to live there. The Champlain Parkway will help to alleviate that and is absolutely necessary. I'd also like to mention, because people who don't live in the area probably don't know this, there are a lot of people who live around us who are in wheelchairs. The sidewalks are up on Shelbourne Road and then intermittently down on Pine, but there's always potholes there. The sidewalks down Home Avenue are so rough that they can't use them. So I actually have a couple of my neighbors who use wheelchairs who when they go by that I go out, because they have to go down Home Avenue, in their wheelchair. Numerous time there have been tractor trailers there that have almost run them off the road. People are in a hurry commuting. It is so unacceptable, the current situation, and I don't think that's something that people who keep protesting this and want to speak about it understand. It's as if things are operating as they should right now and this road is going to bring traffic onto these neighborhood streets. It's there and it's not good at all. Finally, I'd like to say that the City, in trying to keep larger businesses in town that pay taxes, like Burton, Higher Ground, City Market was similar, their being able to build in the places they are is predicated on the Champlain Parkway. So part of the argument is the Champlain Parkway is coming in; all of these traffic studies- it's going to be okay, it's going to get better, once that's built. That's probably true, but it hasn't been built and if it's not built, all of these things are getting done in the name of money, on top of falsehoods. So I'd just like to say that. If Higher Ground comes in, with the same kind of traffic, 1,200 person music venue, these people are going to be coming at night; 9:30, 10:30, 11 traffic starts getting better but these people are going to fill up that time and we will get no respite from the extreme amount of traffic coming down Home Avenue. Thank you.</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
9/26	Spoken Comment	Lynn Vera	End of Pine – Queen City Park Road	<p>My name's Lynn Vera and I live at the other end of all this, at the end of Pine Street where it becomes Queen City Park Road in the neighborhood of Queen City Park. I've lived there for 30-something years. I've used Pine Street, I've seen the changes in Pine Street – the traffic that tries to get down Pine Street. There is no</p>	<p>Similar comments and ideas for implementing light rail or other rapid transit services in Burlington were raised and responded to in the 2009 FSEIS. At the time, it was identified that the area didn't meet population requirements to support this type of</p>

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				<p>way for me, other than by water, to get to Burlington without dealing, at some point, with Pine, Maple, King, all the mess. I really have tried to study this connector, <b>tried to make some sense of why there would be a throughway to bring even more traffic just still to get dumped before you can get into the city.</b> When Chapin took his job, I hoped that there meant there would be a little sanity, levity, to the idea of increasing traffic to get dumped down there. I live where there is lots of parking now- the connector that never got built. And I always fantasize that people of... I don't want to be, I don't want to use a poor word... I fantasize that people, and I, Chapin, put you in that group, that would think of that as a spot to park cars and create something that Vermont could be proud and excited of: an aerial tram to haul all these people and bring them downtown. I hear the gentleman in front of me. Certainly, I've looked at all those neighborhoods, I have friends in all those neighborhoods, you got to get trucks out of there, you have to fix sidewalks. We need some way to get vehicles into town, but it doesn't need to be the road for every vehicle going into town. And most vehicles don't need to go into town and wouldn't if there were a sane and accessible place, like that ugly K-Mart that's not becoming another huge parking lot. Why not plunk all those cars there and bring people downtown in another way? There's so many unpolluting ways of moving large numbers of people. And if we are going to even talk about spending this kind of money we should be getting people out of their cars who need to get into town and just let the trucks and the cars that have to go go. If I lived on any one of those streets and saw a 4,000 car increase and just I'm just supposed to swallow it, I would be crazy tonight. And I do agree with everyone, this one meeting, although it's nice, you have got to get to where the people are, not expect them to come here, if you can do that. But, come on, Chapin, we're looking for ya! Thank you.</p>	<p>transportation alternative. The factors considered at that time have not changed so that our previous responses are still applicable.</p> <p>New, consistent sidewalks compliant with ADA-requirements will be provided throughout the Project.</p> <p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p>
9/26	Spoken Comment	Sandy Henneberger	Colchester	<p>I'm Sandy Henneberger, I live in Colchester. And I'm part of the group that would love for you to do roundabouts instead of traffic signals. I think they're mostly safer. I was a hard sell on this and I'm convinced now they're safer. And maybe there not even – I haven't looked into it that much. But maybe one thing I do know about are these multiuse paths- they're a joke. You're depending on almost no one using them. That artist picture, there was no people on that walkway, no people, no bikes and, yeah, people say that it works on the bike path. Well, I live, I use a bike path, and it does not work if you have a volume of people using it. Supposedly bikes can't go – like the bikes that you get in the town – can't go more than 10 mph. Ten miles an hour is fast for a pedestrian. I've had friends that've had really bad accidents on these multiuse paths. And in Colchester they just put another one in and it looks lovely, it looks peaceful, it looks wonderful. And no one uses it. As soon as you have – you're depending on people not walking, not using their bike. What we really need to have are designated bike paths that are separate from the people walking, or you are creating accidents. And that's really all I have to say. It sounds like a complicated project... good luck.</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
9/26	Spoken Comment	Charles Simpson	Summit Ridge Burlington	<p>Hello, my name is Charles Simpson, I live in Burlington but up at Summit Ridge. And I'm a retired professional sociologist with published studies of work in lower Manhattan, including highway planning. I have to say, and speaking with all due respect, what you've presented here is an exercise in magical thinking. You talk about shared use for paths; we've already seen that when you add together the Segways, the folks on wheelchair access, the parents pushing children in carriages, elderly people, add that to bikers it just doesn't work – you have to know it doesn't work. It's not a solution. You talk about synchronized signals as speeding up the one third increase in traffic that you predict at the King end of Pine Street, and yet you talk about the pedestrian at will signals, you talk about emergency vehicles that can change the lights. There will be no synchronized signals, you have to know that. You talk about connectivity: you're breaking of. You're asking the low- and moderate-income people in South Meadow that may not have cars, you've broken their connection to South Burlington and all of the shopping in South Burlington. That doesn't make any sense. You talk about that this is somehow free money because we're going to be getting 95% of this from the federal government, without realizing that we have to, as tax payers in Burlington, we're going to have to retrofit this road because it's a limited access highway and it doesn't fit into our industrial district. And those jobs, those employers will not have access to that road unless curb cuts are made. And at the same time, we have to maintain this road in perpetuity, so it's not a free road. You talk about servicing the needs of downtown, the original rationale for this highway- it doesn't make any sense. Every one of your purposes and needs is not served by this highway. You talk about getting around; you talk about enhancing economics in the city- you have taken six acres and paved it over in the enterprise zone. You've precluded that from being a job creator. You talk about environmental enhancement: you have put in 200 feet of culvert to channel Englesby Brook. One thing after another, it seems to me, is in contradiction to the rationale and the public</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>

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				relations that surround this highway. It simply is in the wrong place, it's over done. All you would need to do to solve the problem of trucks is to enhance the C1 Section from Home to the interstate; put in a roundabout at the terminus of Pine Street and you would have all of that truck traffic out of that neighborhood. It's a simple solution, it's half built already; it was abandoned but I could be certainly enhanced. Thank you very much.	
9/26	Spoken Comment	Laurie Smith	Queen City Park South Burlington	Hi, my name is Laurie Smith, I live in South Burlington and Queen City Park. And I want to comment about this planet that we are living on. Last Friday there was a strike for the climate; our planet's on fire and we're building more roads. We have Plan B TV which is talking about building a walk and bike friendly community, but we are building a road that brings more cars into Burlington. What are we doing? We have an existing road from I-89 to Home Avenue that could be opened up, get truck traffic off the ground streets, we don't need more roads. We don't need more cars in Burlington; we've been talking about this since the '70s. We want to take car parking off the streets in Burlington so that it's more bike friendly, but we're increasing our dependence on cars. Please! We're killing ourselves. And maybe it doesn't matter – let's build another road. And that's it, thank you.	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
9/26	Spoken Comment	Laura Waters	Queen City Park	My name's Laura Waters, I just have a very quick comment. I'm confused because I thought this meeting tonight was billed as an outreach to get comments from the King Street and Maple Street neighborhoods. Although, you said that's not really what this is about; but you brought in all these translators to help people from those neighborhoods to understand to understand the project, to comment on the project. But there's no one here and you've got one meeting. So where are the people that we are supposed to be providing outreach to discuss the project, to let them express their concerns about the project? And I think that having one meeting where all you have are translators and nobody – or very few people, probably, from that neighborhood, certainly no one from that neighborhood has spoken – is really very inappropriate and that you need to have more meetings. You need to have more outreach. You need to find out where these people are so that you can clearly outreach to them and talk to them about what this project means and how it's going to impact their neighborhoods.	Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.
9/26	Spoken Comment	Ron Krupp	Queen City Park	Hi, I'm Ron Krupp and I have the solution. If anyone's been to Portland, Oregon you might have noticed the light rail system that takes people into town and back. Believe it or not, we have railroad tracks right next to the Champlain Parkway. And we could use those railroad tracks to take people from Shelbourne Road right into town, right to the waterfront. And then we could have jogs that go up to the medical center, go up to the university, go up to the downtown. And if we didn't have light rail, we could use busses that would take people. And we have a large parking area right near Shelbourne Road. So, we could combat pollution, we could use the parkway to build housing, to build shops, because we certainly have a housing crisis in this town. So, we could do all those things with some simple solutions. Some of you may be out of a job – but I'm talking about the people that are wearing the, you know [implying nametag]. Anyway, that's my solution. I live down in Queen City Park. The idea is to close off Pine Street right where Queen City Park hits Pine Street. You know what that's going to do? It's going to send people down Shelbourne Road – that's going to be a mess. So, there is a simple solution if you just listen to me.	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
9/26	Spoken Comment	John Creason	174 Home Avenue	Let me just say one thing. The current Pine Street, part of this project is trying to get this traffic off the road that runs right in front of Champlain Elementary. Everyone keeps talking about we need to save the children from this. All these cars go right in front of the elementary. Right now. This is going to move it down away from that. All these kids from all these neighborhoods come here and go school. There are so many things that seem to be missed by people when they talk about this. I don't even know if people realize that because Champlain Elementary wasn't on the map.	Your support for the Project is noted. This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
9/26	Spoken Comment	Steve Goodkind	NNE	I have a question about the process. Steve Goodkind. Ten years ago, when we last did an EIS for this project, the city was vehemently opposed to this version of the project, specifically where it no longer goes through the railyard, but it goes through the neighborhood of Pine, Maple and King. As part of our efforts to discourage this option and push for another, information was prepared regarding environmental justice, which is what this meeting is about tonight. Back in those days we were told, well that really wasn't a criteria and it never made it into the EIS, as far as I know. But this information exists. <b>In other words, a request and supporting documentation that talks about environmental justice. And I think even in the last 10 years those concerns are even greater.</b> Some of the consultants here tonight probably worked on that. What I'm requesting is that that document be made available so people can look at it and have a better idea again of	The 2009 FSEIS which contains the previous Environmental Justice analysis is available at <a href="http://www.champlainparkway.com">www.champlainparkway.com</a>  Environmental Justice (EJ) was evaluated as part of previous NEPA submissions, including the 2009 FSEIS. FSEIS and NEPA documentation was developed in accordance with FHWA Order 664023 and the Guidance on Environmental Justice and NEPA. EJ was considered at the time of these submissions per the guidance available at the time and is being re-evaluated today consistent with the current EJ guidance.

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				<p>what the issue is here because it is environmental justice. Because the city was on record trying to make a case that environmental justice precluded this particular option being selected. So I would appreciate it if that option could be made available. I couldn't agree more with the gentleman that said, "more meetings." I went down to Public Works last week and asked them about their process and I was told there probably would be more meetings. It's just, like, one. So, I think more meetings, definitely. Thank you.</p>	<p>EJ review protects low-income, minority, and/or tribal populations from disproportionately high and adverse human health or environmental impacts.</p> <p>The Record of Decision issued by FHWA in 2010 has been rescinded in order to reassess environmental justice concerns. This LS DSEIS was prepared to assess these concerns.</p> <p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p>
9/26	Spoken Comment	Tony Redington	Ward 2	<p>I'm Tony Redington I live on North Winooski Avenue. I'm a resident of the Old North End along with Pine/King/Maple area. We have over 80% of our residents at low and median income and low income and poverty level income. It's a key point about what these two areas are like, it's not just that you're low income, there's something that goes along with that. And that is about 40% of the folks and households that live in the King/Maple neighborhood, and the Old North End, do not have a car and have no access to a car. But we don't hear much about that. So when we talk about the importance of walking and biking, this isn't just a nice thing to go scurrying around to enjoy life. It's a necessity. And quite frankly the biggest defect in this project, as you well know, is the fact that this plan has no protected bike lanes anywhere in the project. Paint does not protect a bike lane, physical barriers do. Not only is there no protected bike lanes, there's no separate sidewalk anywhere in this project that is being built. We are taking away sidewalk on parts that's existing right now in front of Chapin's own office. They're taking sidewalk away and making it a shared-use path. That is... it's irrational. But this isn't just my thinking; it's also the thinking of the plan walk-bike of the city, and also the regional plan for active transportation. At just two years old, they call for separate, protected bike lanes from the top of Pine Street at Bank Street, all the way down to Flynn Avenue. You can look it up just as well as I can. And what are those plans – what are we doing with this project? We're not providing one inch of protected bike lane. We're spending 47 million dollars and not getting a quality bike lane anywhere in the project. Number two, we're also not getting any sidewalk; we are actually degrading the ability to walk and bike. I'm not going to go into roundabouts. As you know the city pointed out that you have a 30 second delay with a signal versus 8 seconds with a roundabout. The roundabouts, the downtown roundabouts in Vermont, there are five and have yet to have a bicycle crash. Have not had a serious pedestrian crash. We've had three... about every seven years we kill a pedestrian at a traffic light. It's not confusing; roundabouts are safe. I'm part of the Pine Street Coalition, about 200 people who are supportive of a new EIS process because this project was really put in the can in about 2006. Carolyn Bates has been here tonight and spoke, she was at the 2006 hearing in this location, about 95 people. That was the last real public hearing that put this project to bed. 2006 was the year before the iPhone was invented, the year before the first protected bike lane network was put in Montreal – and here we are today. The point is, the walk-bike coalition of the city has been opposed to this project from the very beginning because of that very thing and the city has refused to respond to them in the design plan that we have here. I guess, finally, my major concern is safety, but also for the neighborhoods. We are concerned about the safety, health and the air quality of our neighbors. Whether we live in the Old North End or the South End, and yes, the sidewalk on Home Avenue is terrible. I'm a biker, but I only can do sidewalks now because it's not safe to be on the street. I must admit that one of the worst sidewalks of the city is trying to get up and down Home Avenue. Thank you.</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/11	Email	William Calfee	147 South Cove Rd	<p>Wayne Davis VAOT One National Life Drive Montpelier VT, 05633</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only</p>

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				<p>Hello Mr. Davis,</p> <p>I would like to go on the record supporting round-a-bouts for the Champlain Parkway in Burlington. I grew up near Manchester VT, where we had "Malfunction Junction" the intersection of VT Rt 30, VT rt 7A and VT rt 11.</p> <p>As residents and business people we went through many attempts to improve the traffic in Manchester at this intersection including several traffic lights. It was not until we installed Round-a-bouts that things improved dramatically.</p> <p>I encourage you to consider avoiding the same pain that Manchester went through and <b>change the plan to replace traffic lights on the Champlain Parkway with round-a-bouts</b>. This would also be in line with the State's and the City's commitment to reduce Green House Gases and carbon emissions.</p> <p>We are at a point of crisis with the impacts of Climate Change and we need to be considering carbon emissions in every action.</p> <p>Let me know if I can help in any way or clarify my thoughts.</p> <p>Thanks for the work you do for the rest of us. Cheers,</p> <p>William Calfee 147 South Cove Road Burlington, VT 05401 802-870-0964 cell 802-540-1082 Home</p>	<p>comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/10	Email	Rick Wackernagel	263 S. Prospect St	<p>Mr. Wayne L. Davis Vermont Agency of Transportation One National Life Drive Montpelier, Vermont 05633</p> <p>Dear Mr. Davis,</p> <p>I am writing you for Burlington Ready for 100% about the proposed Champlain Parkway in Burlington.</p> <p>Burlington Ready for 100% is a Sierra Club renewable-energy campaign seeking a full, just, equitable, affordable and inclusive transition to clean, renewable energy.</p> <p>Burlington has long been a leader in sustainability. It's recent adoption of a goal of becoming a net-zero-energy city by 2030 and the preparation of a roadmap to get there are but the latest examples. In this context the existing Champlain Parkway plan is out of place. However, we see the Parkway was potentially being a model for sustainable urban transportation infrastructure, designed to support low- and no-carbon transportation modes at volumes needed for Burlington to reach its net-zero-energy goal. This would include state-of-the-art transit and bicycle infrastructure. We also believe that the transition to renewable energy must be just and inclusive. The existing plan disproportionately affects low-income and minority populations within Burlington, Making the Parkway a no-regrets transportation project that will benefit everyone and not require reconstruction to support net-zero transportation will be a more just and cost-effective path to Burlington's goal.</p> <p>Deficiencies of existing Champlain Parkway plan and potential remedies</p>	<p>The following responses apply to concerns raised regarding Environmental Justice and the Maple and King Street neighborhood.</p> <p>This LS DSEIS was prepared to assess the potential for environmental justice impacts as a result of the Project.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>The Project includes improvements to pedestrian and bicycle facilities designed in accordance with ADA guidelines and state and federal design standards.</p> <p>Bike lanes will be provided where they are determined to be feasible. Separated cycle tracks were not feasible on Pine Street as there isn't enough width available to accommodate vehicular traffic, separate cycle tracks, and pedestrian sidewalks within the same footprint. In addition, the multitude of driveway openings between Maple Street and Main Street would create numerous conflict points with a separated cycle track facility. The shared use path has been extended as far north on Pine Street as possible and was designed in accordance with state and federal standards that specify required slope, width, and clearance from obstructions on either side of the path.</p> <p>In consideration of the application of roundabouts for the Pine Street/Maple Street and Pine Street/King Street intersections, it was identified that a single-lane</p>

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				<p>The limited access portion of the Parkway dead-ends Pine Street, disconnecting Queen City Park Road and connected portions of the South End of Burlington and the northwest corner of South Burlington.</p> <p>While the provisions for bicycles and pedestrians may have been best practices at the time the last Parkway plan was developed, they no longer are. Shared lanes for bicycles and pedestrians, and <b>painted lines on roadways for bicycles have been replaced by separate cycle tracks and sidewalks, because of their ability to reduce accident rates and support higher volumes of bicycle traffic.</b> Burlington's roadmap to net-zero energy includes a substantial increase in use of bicycles for transportation, making the future benefit of reducing accident rates even greater than now. Shared paths and painted lanes on shared roadways will not be adequate then, making the Parkway a regret requiring reconstruction to resolve.</p> <p><b>The use of traffic signals instead of stop signs along the Parkway results in a collection of missed opportunities to improve the operation of the corridor and its impacts on the area.</b></p> <p><b>Signalized intersections are now known to increase throughput less than roundabouts do, while increasing accident, injury and fatality rates. Vehicles move more slowly through roundabouts, and roundabouts are not affected by power outages. Roundabouts have fewer points of conflict between vehicles than do standard intersections.</b></p> <p><a href="https://www.wsdot.wa.gov/Safety/roundabouts/benefits.htm">https://www.wsdot.wa.gov/Safety/roundabouts/benefits.htm</a>  <a href="https://www.qreatersudbury.ca/sudburyen/assets/File/Comparative%20Analysis%20-%20Second%20Avenue%20at%20Scarlett%20Road v2.pdf">https://www.qreatersudbury.ca/sudburyen/assets/File/Comparative%20Analysis%20-%20Second%20Avenue%20at%20Scarlett%20Road v2.pdf</a></p> <p>Studies by the Insurance Institute for Highway Safety and Federal Highway Administration have shown that roundabouts typically achieve:</p> <ul style="list-style-type: none"> <li>• A 37 percent reduction in overall collisions</li> <li>• A 75 percent reduction in injury collisions</li> <li>• A 90 percent reduction in fatality collisions</li> <li>• A 40 percent reduction in pedestrian collisions</li> </ul> <p><a href="https://www.wsdot.wa.gov/Safety/roundabouts/benefits.htm">https://www.wsdot.wa.gov/Safety/roundabouts/benefits.htm</a></p> <p>A September 2015 study of 15 single-lane roundabouts in Maryland showed "a 68 percent decrease in the total accident rate per million vehicles entering the intersection (mve). In addition, there was a 100 percent decrease in the fatal accident rate/mve, an 86 percent reduction in the injury accident rate/mve, and a 41 percent reduction in the property damage only accident rate/mve." This study showed a benefit-to-cost ratio based on the reduced accident rates of 15 to 1 - \$15 of avoided costs of accident and injury for each \$! spent on roundabouts.</p> <p><a href="https://ops.fhwa.dot.gov/publications/fhwahop14032/ch5.htm#55">https://ops.fhwa.dot.gov/publications/fhwahop14032/ch5.htm#55</a></p>	<p>roundabout is not feasible to be constructed at either of these two intersections because of the physical constraints and existing built environment. Although mini roundabouts might be able to fit physically; they are not recommended for the intersections of Pine Street/Maple Street or Pine Street/King Street because of considerations related to the arterial function of Pine Street, truck/bus accommodation, traffic performance, vehicle safety and pedestrian/bicyclist safety.</p> <p>Air analysis completed for the project shows that it is in compliance with the National Ambient Air Quality Standards (NAAQS) and Vermont's Air Pollution Control Division (APCD) guidelines. There are no impacts anticipated, nor mitigation required.</p>

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				 <p>The reduced throughput and increased dwell times at signalized intersections increase motor-vehicle emissions along the route. The increased emissions cause increased health costs, particularly among area residents, particularly in the King-Maple portion of the Parkway. Traffic volume will increase more there, in both absolute and percentage terms, than in other portions of the Parkway. Idling traffic at signals where these two streets cross Pine St. will produce higher concentrations of vehicle emissions in this portion of the Parkway.</p> <p>Champlain Parkway Project, Burlington, Vermont: Public Outreach Meeting For The Greater King Street and Maple Street Neighborhood. Thursday, September 26, 2019.</p> <p><a href="http://champlainparkway.com/resources/documents/activity/09-26-2019-Public-Outreach-Presentation.pdf">http://champlainparkway.com/resources/documents/activity/09-26-2019-Public-Outreach-Presentation.pdf</a></p> <p>This neighborhood has the second highest concentration of low-income and minority people in Burlington. The Federal Highway Administration's policy is to avoid disproportionately high adverse impacts on minority and low-income populations:</p> <ol style="list-style-type: none"> <li>2. "The FHWA will administer its governing statutes so as to identify and avoid discrimination and disproportionately high       <ol style="list-style-type: none"> <li>2. "(2) proposing measures to avoid, minimize, and/or mitigate disproportionately high and adverse environmental or public health effects and interrelated social and economic effects, and providing offsetting benefits and opportunities to enhance communities, neighborhoods, and individuals affected by FHWA programs, policies, and activities, where permitted by law and consistent with EO 12898</li> <li>3. "(3) considering alternatives to proposed programs, policies, and activities where such alternatives would result in avoiding and/or minimizing disproportionately high and adverse human health or environmental impacts, where permitted by law and consistent with EO 12898;"</li> </ol> </li> </ol> <p>FHWA Order 6640.23A - FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations</p> <p><a href="https://docs.google.com/document/d/1Jon1fcviiqqjh4tjQumkyVErFDFoV9nbPkoYQ12op0/edit">https://docs.google.com/document/d/1Jon1fcviiqqjh4tjQumkyVErFDFoV9nbPkoYQ12op0/edit</a></p> <p><b>installing roundabouts at intersections on the Parkway would increase throughput and reduce dwell time at the intersections. This would reduce the disproportionately high adverse impacts on the low-income and minority populations living in King-Maple neighborhood.</b></p> <p>Higher automotive emissions will also mean higher greenhouse-gas emissions, missing an opportunity to contribute to reaching Burlington's net-zero-energy goal, and setting the stage for reconstruction at a later date.</p>	

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				<p>Consolidated list of proposed changes            To create a Champlain Parkway that cost-effectively supports Burlington's and the Federal Highway Administration's commitments to environmental justice, and supports Burlington's efforts to become a net-zero-energy city, we concur with the Burlington Walk-Bike Council's endorsement (Letter to Mayor Miro Weinberger at <a href="https://drive.google.com/drive/folders/1z7Mv9fl596ntnX3CJPD1KVyzRoKcUEv">https://drive.google.com/drive/folders/1z7Mv9fl596ntnX3CJPD1KVyzRoKcUEv</a>) of the Pine Street Coalitions Redesign Guidelines (Below), with the following specifications or additions:</p> <p>A park-and-ride facility close to the intersection of I-189, Queen City Road and Pine Street, served by</p> <ul style="list-style-type: none"> <li>Mass transit, with a handicapped-accessible waiting shelter with seats</li> <li>A bike-share system, with the charging hub</li> <li>Secure bike racks</li> </ul> <p><b>Continuous separate cycle tracks and sidewalks along the whole length of Pine St</b></p> <p><b>Roundabouts with separate cycle tracks</b>, as in: <a href="https://www.youtube.com/watch?v=FR5148h5Eo">https://www.youtube.com/watch?v=FR5148h5Eo</a></p> <p>Summary            Redesigning Champlain Parkway as outlined above will produce a Champlain Parkway that contributes more to Burlington's transition to net zero energy and reduces differential adverse impacts on low-income and minority residents along the Parkway corridor. This will avoid redesigning and rebuilding it later to achieve this goal, and make the Parkway a demonstration of sustainable urban transportation infrastructure.</p> <p>Yours sincerely,            Rick Wackernagel            Volunteer Lead            Burlington ready for 100%</p> <p>Appendix</p> <p>Parkway redesign Guidelines            Pine Street Coalition: Let's Do It Right -Thursday, August 9, 2018 ·</p> <p>CHAMPLAIN PARKWAY REDESIGN GUIDELINES Let's Do it Right June 2018</p> <p>The Champlain Parkway Redesign Guidelines (Guidelines) arise from public many South End community and City groups discussions. The Guidelines shape a safe and complete street concept. Ultimately a new Parkway design happens through a thorough, informed, public discussion of today's needs. The Parkway dates from 1960s, the current design from a decade ago-plans do evolve over time!</p> <p>The Guidelines call for:</p> <ol style="list-style-type: none"> <li>a. Cutting 1.5 mile lane miles of roadway;</li> <li>b. Conserving four acres between Flynn and Lakeside Avenues, about two for economic development of the "Gilbane" parking property and two for protection and improving Englesby Brook</li> <li>c. Employing roundabout technology throughout to avoid dozens of crashes and injuries to the traveling public, and reducing intersection gas use and pollutants including global warming by about a third;</li> <li>d. Attaining about \$12 million cost savings, one quarter of the \$43 million project;</li> </ol>	

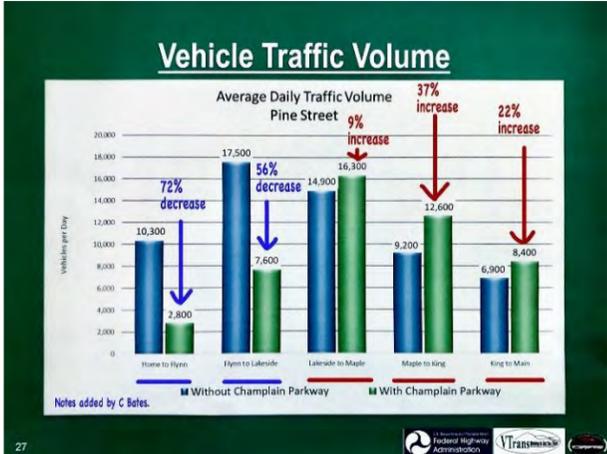
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				<p>e. Retaining connectivity and enable improved bus services as well as future light rail;</p> <p>f. Offering better, safe access to City Market South End and Petra Cliffs;</p> <p>g. Allowing some savings invested in lower Pine Street and Flynn Avenue for sidewalks;</p> <p>h. Providing separate and safe individual walk and bike facilities now absent;</p> <p>i. Fostering a livable and sustainable South End so critical to both quality of life and new vibrancy of the neighborhoods-as well as the arts, education, and business economies.</p> <p>Champlain Redesign Guidelines feature:</p> <p>Reversing dead-ending of Pine Street at the Parkway Current design dead-ending worsens the nearby single-lane bridge, cuts Queen City Park road access and linkages to the Industrial Drive and South Burlington points.</p> <p>The I 189 segment for years used for commuter parking, children bike riding and dog walks Some can be retained as a two-lane road allows a linear transit or park 'n ride facility.</p> <p>From Home Ave. to Flynn Ave. the Parkway converted from two segregated streets, becoming a single, quality and safe "complete street."</p> <p>Melding Briggs and Batchelder into a single street with full connectivity possible for City Market and Petra Cliffs (no vehicle access to Morse, Lyman and Ferguson).</p> <p>The "[proposed Champlain]Parkway" ends at Flynn Ave. The original "Purpose and Need" to speed traffic downtown no longer serves the City or is possible with moving the railyard abandoned.</p> <p>The objective of shifting trucks off local streets to the industrial areas still occurs.</p> <p>The natural areas of Englesby Brook now preserved and two acres of prime development land at Glbane recovered for businesses and associated jobs. The Gilbane property and Innovation Center now become an overall "Lakeside Innovation Zone." Guidelines affirm the value of the energy and industrial innovation enclave which mark the area from its earliest days. This "innovation enclave" engages with the City's food hub and energy production as a common goal.</p> <p>Safe and separate walk and bike routes Walk/bike quality facilities along the Pine Street corridor serve the neighborhood, commuters. and feature a focus on "safe routes to school", thereby becoming a complete street with "low stress" bikeways.</p> <p>Stormwater infiltration Mechanisms for stormwater include rain gardens, soils remediation and open space protection on the Barge Canal as an ongoing remediation site.</p> <p>Pine Street to Main Street With Bicycle Connections: The Tuning Fork Separate from the Parkway project, the Railyard, may allow a one way street design west from Curtis Lumber to South Champlain, north to Main Street then return down Pine Street-'this allows the addition of a low-stress bike circulation and connector to the Burlington Bikepath.</p> <p>-----</p> <p>This scheme of combustion to get power makes me sick to think of - it is so wasteful. We burn up wood and coal, as renters burn up the front fence for fuel. -Thomas Edison, 1910</p> <p>Rick Wackernagel (He, him or his)</p>	

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				<p>Itinerant climate activist  rick. wackernagel@gmai I. com, 802-578-4907  262 South Prospect St Apt 2, Burlington VT 05401  <a href="https://www.facebook.com/rick.wackernagel.3">https://www.facebook.com/rick.wackernagel.3</a></p>	
10/9	Email	Samuel Lurie	80 Austin Drive, #173	<p>I live in the South End and have concerns about the current design of the Champlain Parkway.</p> <p>1) The dead-end at Pine Street restricts traffic in too many ways. I live on Austin Drive and use the bus, which uses the connection to Queen City Park Road. I do not see how this will be manageable. Please consider an alternative to cutting off this important South End connection. The roundabout option I have heard about makes sense.</p> <p>2) The terminus at Lakeside Ave also seems like bad planning and counter-productive to the goal of the Parkway. As someone who travels this part of Pine Street, often via Lakeside by bike, this will cause significant backups. How can the small neighborhood--and numerous larger facilities like Champlain College, the Innovation Center, and the new development at Blodgett--manage with this plan?</p> <p>3) There has been a lot of business development on Pine Street which would now all be bypassed with this plan.</p> <p>4) We already have a main road to downtown, Shelburne Road, and I don't see why cars and trucks can't be directed there.</p> <p>Thank you for your reconsideration of this project. There are reasons it has stalled for so long. Burlington and the entire world has changed so much, even in the past 5 years. Let's not use a plan designed decades ago to solve our current problems. This is an opportunity to step back and re-think the plan before we buy in to something that doesn't work for our community.</p> <p>Thank you,  Samuel Lurie  80 Austin Drive, #173  Burlington, VT</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/9	Email	Michael Royer	Queen City Park Road	<p>I live on Queen City Park Road.  The Champlain Parkway will be immediately behind my house.  This is the wrong road at the wrong time.  Shelburne Rd should be improved to carry traffic into the downtown.  Pine Street already carries too much traffic and adding traffic to it will make it unbearable.  The Champlain Parkway will create an obstacle to lake access.  It will filter car and truck traffic onto Pine Street at a choke point.  The wait, especially at rush hour, to get traffic through Pine and down through Maple onto Main St will be horrible.  And then where does the traffic go when it meets Main Street?  Traffic will continue to cut through the neighborhoods.  How will local kids cross it to get to school?  This project has not been thought through for the 21st Century.</p> <p>Large trucks need to be banned except for the highways and a refurbished Shelburne Rd.  Smaller trucks should be required in urban areas.  There's no reason 18 wheelers need to be delivering locally.  The existing sections of the Parkway should be turned into park and ride, good bike/walking routes, and a trolley track.</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>

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				Thank you -Michael Royer Burlington, VT	
10/8	Email	Donna Fellingner	80 Austin Drive	I support Champlain parkway redesign. Lets get pedestrians and cyclists into the plan. Donna Fellingner 80 Austin Drive	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/8	Email	Ben Traverse	92 Home Ave	<p>To Whom It May Concern:</p> <p>The Champlain Parkway, in its currently approved form, is absolutely essential to alleviating traffic in Burlington's Addition neighborhood.</p> <p>Decades' worth of development has taken place down Austin Drive, all under the pretense that folks in places like Red Rocks and Ledgewood would have a way in-and-out via the Parkway. As it is, Home Avenue remains their only outlet.</p> <p>All too many commuters are increasingly making Pine Street their way out of Burlington, with many working in expanded office space along the corridor, or stopping along the way at new restaurants, breweries, and stores.</p> <p>The South End City Market was recently developed with the Parkway in mind. The store's back entrance remains unusable until the Parkway is built. Briggs and Batchelder, and the western portion of Flynn Avenue are in a continuous state of disrepair, awaiting a new thoroughfare.</p> <p>More recently, Burlington acted to rezone the Enterprise - Light Manufacturing area, paving the way for a large late-night entertainment hub to be built along Queen City Park Road. If this project is permitted without the Parkway, the only means of ingress and egress will be through our residential neighborhoods. This is unacceptable.</p> <p>Maintaining quality of life in the South End demands that construction of the Parkway begin as soon as possible. Moreover, for the aforementioned reasons, the project should prioritize the southern portions of the project first, rather than the Flynn to Lakeside portion.</p> <p>Respectfully submitted, Ben Traverse 92 Home Avenue Burlington, VT 05401 (607) 624-1287 bentraverse@gmail.com</p>	Your support for the Project is noted. This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/8	Email	Sam Beall	396 Flynn Ave	<p>To whom it may concern:</p> <p>I support the parkway as it's currently designed. As a south end resident, I can say from experience that the status quo for traffic flow is unacceptable. The current design will bring relief to an over burdened street system that was not designed for the traffic flows we currently experience. I'm a commuting cyclist, and I really look forward to the protected bike lanes this project includes.</p> <p>I hope the city will move forward with the project without delay.</p> <p>Sincerely,  Sam Beall 396 Flynn Avenue</p>	Your support for the Project is noted. This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.

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10/8	Email	Ellen Leff	161 Austin Drive	I support Champlain Parkway re-design to make it a safer and more friendly thoroughfare for driving, biking and walking. Please continue access from Pine St to Home Ave and Austin Dr neighborhoods and beyond. Ellen Leff 161 Austin Dr	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/9	Email	Laura Waters	50 Central Ave, S. Burlington	<p>As I was down at the Intervale today a large flock of geese flew over &amp; it caused me to ask why the City of Burlington insists on spending tens of millions of dollars on a road project that was developed before we realized the environmental damage that we are doing to the planet from burning fossil fuels. I know why transportation officials want to spend the money on roads because that is what they do. But Burlington has a choice. We don't have to spend this money on a road that will only encourage more driving &amp; create more traffic in the city. City officials need to have the courage to make a strong statement that contributing to the increase of GHG emissions will not occur in Burlington &amp; that the city will do everything in its power to reduce or eliminate carbon emissions even if it means giving up transportation dollars for construction of a new road.</p> <p>I see no reason that the C1 section should not be opened to remove traffic from Home Avenue, as long as Pine Street does not become a dead end &amp; a roundabout is installed.</p> <p>The design of the pedestrian &amp; bike paths along the entire project is ridiculous. The zigzagging from the east to west at intersections with traffic lights &amp; then constructing a combined bike/pedestrian path along Pine Street until you dump the bikes out into the street at Kilburn. How is this safe?</p> <p><b>I don't understand how putting 3,000 more cars a day onto Pine Street could be considered a good thing. The traffic lights are supposed to be synchronized to improve traffic flow but pedestrians, buses &amp; emergency vehicles can override the signals which will happen on a regular basis. Did your model take into consideration that the lights will not be synchronized during the most active parts of the day when there is the most traffic &amp; the most pedestrians/bikes trying to maneuver through these intersections?</b></p> <p><b>The King/Maple Neighborhood will see a one third increase in traffic while other neighborhoods will see their traffic drop by more than half. This clearly violates the principles of environmental justice. This increased traffic will cause more pollution and noise in the neighborhood and decrease safety and health. I believe that it is unfair to decrease the traffic in other neighborhoods while greatly increasing it in King/Maple with this Parkway design. We do not need more traffic. We need a 21st century approach to transportation.</b></p> <p>Laura Waters 50 Central Ave S. Burlington, VT</p>	<p>The following responses apply to concerns raised regarding Environmental Justice and the Maple and King Street neighborhood.</p> <p>This LS DSEIS was prepared to assess the potential for environmental justice impacts as a result of the Project.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p>
10/9	Email	Barbara McGrew	Burlington	<p>To whom it may concern: Please, please do not construct an outmoded, unsafe, and purposeless road. The dumping of all the traffic in the Maple King Neighborhood alone should be reason to reconsider.</p> <p>It's not a case of opposing something good because it is not perfect. It is opposing a poor design when something good might be built given a little more thought, creativity, and public input.</p> <p>Barbara McGrew Burlington Sent from my iPhone</p>	<p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion,</p>

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10/10	Email	Kristen Chutter-Cressy	167 Ferguson Ave	<p>For our time and the future, we should be designing to accommodate cars, but not for them. Keeping more vehicles out of Burlington, rather than encouraging more car/truck traffic by adding another route should be the goal. I hate to think it is too late to make a better plan that will serve residents better. Maybe the positive view of the long wait for the Parkway is an opportunity to update and modernize for a greener, more innovative version.</p> <p>If the Champlain Parkway is to go forward, it is my opinion, that it should be an emission free zone. Limit the Parkway to dedicated cycling lanes, pedestrian lanes and electric bus lanes. It should be designed with the health and safety of all people in mind and be forward looking. Cycling paths should be treated as roads, not recreation. The Pine Street corridor has sections on the east side where parking is allowed, interrupting the bike lanes, making it less safe. Shelburne Road (speed limit 30 mph) allows bikes to ride in all lanes, but without dedicated bike lanes, this is not safe for anyone.</p> <p>This is my neighborhood and for the 12 years we have lived here, the Champlain Parkway has been looming. As a parent with young children, I admit, I did not participate in planning and contributing during these years. Now that they are older, one rides his bike to BHS and the other buses and walks to Edmunds MS. We moved here for the walkability and would love to see the walkability and bikeability improved to include their expanding world. We should use current data and consider current technology to make a plan that will serve us now and in the future. I believe innovation and improved design will attract business and economic development (checkout Carmel, Indiana - population 92,000). I find some of the pictures in the Plan BTV Walk Bike Plan inspiring - dedicated two way bike lanes with a buffer from car traffic (this would be amazing on Shelburne Road). I hope more discussion this can lead to a better solution.</p> <p>Thank you, Kristen Chutter-Cressy 167 Ferguson Ave Burlington, Vermont</p>	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/10	Email	James Vos	42 Conger Ave #6	<p>Good Day:</p> <p>My name is James Vos and I am a resident of Burlington's South End and operate a pet sitting business (PetPal) from my home. I am writing you to share my concerns with the Champlain Parkway Project that is proposed for the King/Pine Neighborhood, the second highest low income and minority neighborhood in Burlington, four-fifths of the neighborhood of low and moderate income. About one third do not have access to a motor vehicle.</p> <p>Recently, the Federal Department of Justice has required that this project undergo an environmental justice review. This mean the project planners must show that the project will not have a disproportionate impact on low income and minority neighborhoods like the neighborhood at the intersections of King/Pine Streets and Maple/Pine Streets. I think it does have a huge discrepancy.</p>	<p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is</p>

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				<p>The neighborhood will see a one third increase in traffic while other neighborhoods will see their traffic drop by more than half. (Please see the attached Traffic Volume Graph.) This clearly violates the principles of environmental justice.</p> <p>This increased traffic will cause more pollution and noise in the neighborhood and decrease safety and health. I believe that it is unfair to decrease the traffic in other neighborhoods while greatly increasing it in King/Maple with this Parkway design. We do not need more traffic. We already have too much.</p> <p>Thank you for your consideration of these comments.</p> <p>Sincerely,</p> <p>James Vos Owner Address: 42 Conger Avenue, #6 Burlington, VT 05401</p> <p>PetPal - Dog Walking, Pet Sitting &amp; Overnights</p> <p>Telephone/text: 802-324-8219</p> <p>PetPal everywhere: <a href="http://www.PetPalVt.com">http://www.PetPalVt.com</a> <a href="http://www.facebook/PetPalVT">http://www.facebook/PetPalVT</a></p>  <table border="1"> <caption>Vehicle Traffic Volume Data</caption> <thead> <tr> <th>Segment</th> <th>Without Champlain Parkway</th> <th>With Champlain Parkway</th> <th>% Change</th> </tr> </thead> <tbody> <tr> <td>Home to Hyatt</td> <td>10,300</td> <td>2,800</td> <td>72% decrease</td> </tr> <tr> <td>Hyatt to Lakeside</td> <td>17,500</td> <td>7,600</td> <td>56% decrease</td> </tr> <tr> <td>Lakeside to Maple</td> <td>14,900</td> <td>16,300</td> <td>9% increase</td> </tr> <tr> <td>Maple to King</td> <td>9,200</td> <td>12,600</td> <td>37% increase</td> </tr> <tr> <td>King to Main</td> <td>6,900</td> <td>8,400</td> <td>22% increase</td> </tr> </tbody> </table>	Segment	Without Champlain Parkway	With Champlain Parkway	% Change	Home to Hyatt	10,300	2,800	72% decrease	Hyatt to Lakeside	17,500	7,600	56% decrease	Lakeside to Maple	14,900	16,300	9% increase	Maple to King	9,200	12,600	37% increase	King to Main	6,900	8,400	22% increase	<p>destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>The statement that four-fifths of the neighborhood is low/moderate income is incorrect in terms of the definition of low income for a NEPA environmental justice assessment. No portion of the Project area meets the US Department of Health and Human Services (HHS) poverty thresholds to be identified as a low-income community. Please refer to the corresponding sections of this LS DSEIS for a detailed assessment of Census data and an analysis of low-income and minority communities in the Project study area.</p> <p>While the neighborhood does not meet the US Department of Health and Human Services (HHS) low-income thresholds, a number of design features have been included in the Project to mitigate the impact of traffic on the community. These features include improved pedestrian and bicycle facilities, new, consistent, ADA compliant sidewalks and sidewalk access ramps, bicycle markings, curb extensions, raised intersections, rapid flashing beacons, and exclusive pedestrian phases.</p>
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10/10	Email	Clare Ginger	65 Ferguson Ave	<p>To Whom It May Concern:</p> <p>I am a resident of the South End, having purchased and moved into a home on Ferguson Ave in 2003. I write in strong support of the Champlain Parkway project as it currently stands.</p> <p>I have been to NPA meetings over the years and heard/seen several presentations made about the design and development of the Champlain Parkway at these meetings. While the project is not perfect, it has been substantially improved over the many years of comment, analysis, discussion, and debate. The project will result in better traffic flow through the various neighborhoods in the south end; it will provide much improved</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>																								

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				<p>pedestrian and bike access along its length. It is a well-designed, well-vetted project that should move from the design to the build phase as soon as possible.</p> <p>The small group of Burlington residents who currently oppose the Champlain Parkway project and hope to stop it from going forward represent a minority view. They have shown very little respect for the work completed to date, the extensive outreach activities that have already taken place, and, in the end, the views of the majority.</p> <p>Moreover, over the years, they have tried to hijack neighborhood conversations related to other proposed development projects in the South End, and impose their agenda related to the Champlain Parkway. They have been unable to contribute in any meaningful way to the topics that were the announced focus of these other conversations (efforts to work with City Market about their development on Flynn Ave, neighborhood concerns about the proposed development for the St. Anthony's property that never came to fruition) - instead they have come to these meetings with the intent of changing the topic to blocking the parkway. To my mind, they have exhibited behaviors that are disrespectful of cooperative processes.</p> <p>Clare Ginger 65 Ferguson Ave Burlington, VT 05401</p>	
10/10	Email	Larry Lewack	Five Sisters Neighborhood	<p>Good morning,</p> <p>As a home owner and long-time resident of the Five Sisters neighborhood in Burlington, I write to demand a new EIS for this roadway project. I live in a neighborhood that would experience significant adverse impacts from the current design, if built. Here's why:</p> <p>My personal concern is that the route's intersections through Lakeside Ave. will result in massive back-ups for traffic along Pine St. during rush hours to avoid congested traffic. Most drivers, when confronted with long delays, will take short-cuts to find the path of least resistance. That will likely result in many drivers turning left to use Locust St. to get to Shelburne Rd. My own street terminates southbound at Locust St. along that route, and there are many young children who cross Locust to get to Calahan Park during their morning walk to school, or to get to youth sports practices and games there. Loading additional high-speed traffic generated by harried commuters will result in significantly increased risk to those children. <b>On top of major backups in the low-income neighborhood of Maly &amp; King Streets due to inadequate lanes, this will exacerbate, not relieve, current traffic delays along the Pine St. Corridor, and result in increased tailpipe emissions from backed-up traffic.</b></p> <p>Overall, this project would have a net negative impact on my neighborhood's air quality. While it might have a limited benefit of reducing truck traffic along Flynn Ave. and Home Ave., it would decrease the connectivity of our street grid, increase traffic back-ups &amp; thus reduce air quality at several major signalized intersections, and increase risk to pedestrians crossing busy uncontrolled intersections (e.g. the Locust St. ROW described above). The 2009 EIS does not take these impacts into account, by dismissing these and other concerns as irrelevant. They are pressing &amp; germane to the likely impacts this current road design will trigger. A new EID should be ordered immediately.</p> <p>Thanks for considering my views. Please keep me posted on your decision-making on this project.</p> <p>Larry Lewack carpediem@burlingtotelecom.net</p>	<p>This LS DSEIS was prepared to assess environmental justice concerns in the Project study area.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>Exclusive pedestrian-actuated phases have been incorporated into all traffic signal designs which allow pedestrian to cross the roadway surface while all vehicles are stopped. At Locust Street, curb extensions will be installed to reduce crossing distances. New crosswalk pavement markings and signs will be installed as part of the Project. Pedestrian travel and routes to school will benefit from the continuous sidewalk and/or shared use path on both sides of Pine Street. The existing sidewalk is discontinuous and failing in many sections.</p>

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					<p>Air analysis completed for the project shows that it is in compliance with the National Ambient Air Quality Standards (NAAQS) and Vermont's Air Pollution Control Division (APCD) guidelines. There are no impacts anticipated, nor mitigation required.</p> <p>Additional opportunities for public engagement and comment will be provided as part of the current NEPA process. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p>
10/10	Email	Marcy Kass	202 Sunrise Dr, Williston	<p>To whom it may concern: Possibly Kenneth R. Sikora, Jr. and Wayne L. Davis,</p> <p>The current \$47.1 million Champlain Parkway design violates the latest now decade-old Environmental Impact Statement (EIS). Two lawsuits seek to bring the Parkway into compliance with current laws and community needs. The lawsuits objective is forces a complete public re-design of the Parkway to address safety, connectivity, costs, and climate change.</p> <p>To Governor Scott, Federal Highway, Mayor Weinberger, I support Champlain Parkway re-design to make it a safer and more friendly thoroughfare for driving, biking and walking. The current antiquated design is wasteful and dangerous. I support building a roadway that makes sense and our City can love!</p> <p>I live in Williston and sometimes put my bike on the bus and ride into Burlington. When I ride my bike onto Pine Street, there's something in the air. I don't know what it is. A freshness. That says a lot for Burlington, I think currently still one of the most livable cities in America. Let's keep it that way.</p> <p>I spoke to many people about this project. Chapin Spencer is someone I hold in high regard. My sense is that he was trying to make the best of a not-great plan; that he's bound by his job as Director of Public Works to do that. The neighborhood and those of us who love Burlington are not similarly bound. Let's do the very best we can! Why not?</p> <p>I understand that there is possibly much money to lose, if the this project doesn't go ahead as planned. There's also the possibility that that will NOT happen. More importantly, if we are paying attention, especially to young people, we will get it that money is NOT the bottom line, truly. It is our lives and our futures!</p> <p>Thank you for your consideration,</p> <p>Marcy Kass 202 Sunrise Drive Williston, VT</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/9	Email	Danny Weiss	161 Austin Dr Apt 106	<p>To: Mr. Kenneth Sikora, Jr. Environmental Program Manager Federal Highway Administration 87 State Street Montpelier, VT 05602</p> <p>Dear Mr. Sikora,</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>

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				<p>I support Champlain Parkway re-design to make it a safer and more friendly thoroughfare for driving, biking and walking.</p> <p>Pine Street will become a dead-end that will not allow access between Queen City Park Road and Pine Street. This will direct all traffic taking the CP into Burlington with inevitable backups happening at Lakeside Avenue and Pine Street. This is a colossal mistake that can easily be remedied by adding a roundabout at that intersection which would allow traffic to have access onto Queen City Park Road, lower Pine Street, and the Champlain Parkway.</p> <p>This improvement is a no-brainer. There are other bad choices characteristic of this design. You can learn about this issue at the SAFE STREETS BURLINGTON blog. I urge you to check out this information, especially the right-hand column for a full list of sensible redesign guidelines.</p> <p><a href="http://www.safestreetsburlington.com/">http://www.safestreetsburlington.com/</a></p> <p>Sincerely,</p> <p>Danny Weiss 161 Austin Dr. - Apt. 106 Burlington, VT 05401</p>	
10/9	Email	Maria Hummel	Home Ave	<p>Dear Dept of Public Works:</p> <p>I am writing to make a strong endorsement of the Champlain Parkway project, and to plea for construction to begin in the South End, where the major impacts will be most felt. As a resident of Home Ave, I am both excited by the many developments in the South End (City Market, the thriving venues on Pine St, the farmer's market, etc) and swamped daily by the traffic that those developments bring. Now that the city has rezoned in order to allow Higher Ground to move onto the Burton campus, I anticipate a daily AND nightly onslaught of cars. This tips my experience of living in my house to potentially unbearable.</p> <p>Furthermore, we have a child at Champlain School, as do many parents in the Addition. Building the southern part of the Parkway first would 1) reduce air pollution for the many bikers and walkers to school, 2) increase safety, and 3) make life for out-of-town driving commuters a heck of a lot easier. What morning commuter wouldn't love to avoid the throng of buses and Champlain parents pulling over to drop off the kids?</p> <p>I grew up in this city and saw the project postponed many times, sometimes in the city's best interest. But we're so close and so many people have worked hard to make this roadway possible. It's not a perfect plan, but there won't be a perfect plan with a SuperFund site and a lake flanking one whole side of the city. This design is far better than no construction at all. Thank you for all you are doing and please don't halt progress now!</p> <p>Sincerely,</p> <p>Maria Hummel</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/7	Email	Karen Hunt	Home + Pine	<p>Hello,</p> <p>I have lived on the corner of Home Ave and Pine St for 21 years and have been waiting for the Champlain Parkway to be built that whole time. I taught my toddlers to be wary of the traffic when they were playing outside, I walked them down Pine St to Champlain Elementary as cars and trucks passed us by, they learned how to back out of our driveway carefully watching for cars who speed around the corner from Home Ave onto Pine St without a thought to people who may be trying to exit their driveway. These are all great life lessons but I have always looked forward to some measure of traffic relief "in two years" when the road is</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>

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				<p>finally built. (I'm pretty sure we were told the road would be built in just a couple years when we bought the house). Our neighborhood streets are clogged with traffic trying to get into or out of the downtown business district. This summer, when Pine St was one way it was pretty awesome -- not so much when the trucks were working right outside my house, but the rest of the time it was wonderful to be able to back out of my driveway without fear of getting hit and move smoothly into traffic.</p> <p>Please know that there are a great number of my neighbors who are in support of this long promised road. The changes to the design of the road that have happened over the 21 years that I have been paying attention have moved it in the right direction. Having bike lanes and room for walkers will be much appreciated. Maybe I'll even be able to park next to my house on Pine Street again when we need to shuffle cars around in our driveway or we have more than two guests visit us.</p> <p>Thank you for all your hard work on this project. I so look forward to seeing it come to life.</p> <p>Best Regards</p> <p>Karen Hunt</p>	
10/7	Email	Kai Mikkel Førle	27 Germain Street	<p>Dear Ma'am/Sir,</p> <p>I am writing to express my opposition to the construction of what is now being referred to as the Champlain Parkway. Not only is this project completely unnecessary it is a massive waste of public money. This is a project in search of a problem that doesn't exist. My suggestion would be to focus time and money instead on upgrading existing roads such that they stop contributing to urban runoff and the destruction of Lake Champlain, our sole source of drinking water.</p> <p>Moreover, even if it were to move ahead as planned, I am also opposed to the Champlain Parkway for the reasons detailed out by the Burlington Walk Bike Council. For instance, <b>I take issue with the lack in the design of an inch of sidewalk or an inch of protected bike lanes or bikeway. I take issue with six carbon intensive new traffic signals consuming at least an average of 3,000 gallons of gasoline per year compared to "best practices" roundabouts found feasible by AARP. I take issue with the projection that shows that the Parkway increases traffic by 29-37% along the heart of the low-income, minority King Maple Street Neighborhood while benefiting higher income residential areas south of Flynn Avenue. I take issue with the fact that safety was not evaluated in the project development in the early 2000s when roundabouts and protected bike lanes were not the standard practice as they are today.</b></p> <p>I urge planners to end this absurd project for once and for all.</p> <p>Kai</p> <p>Kai Mikkel Førle 27 Germain Street Burlington, Vermont</p>	<p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>In consideration of the application of roundabouts for the Pine Street/Maple Street and Pine Street/King Street intersections, it was identified that a single-lane roundabout is not feasible to be constructed at either of these two intersections because of the physical constraints and existing built environment. Although mini roundabouts might be able to fit physically; they are not recommended for the intersections of Pine Street/Maple Street or Pine Street/King Street because of the issues related to the arterial function of Pine Street, truck/bus accommodation, traffic performance, vehicle safety and pedestrian/bicyclist safety.</p>

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10/7	Email	Jay Fisher	91 Southcrest Dr	<p>I am writing to be sure that you're aware of one of the many residents in the southend of Burlington who is in full support of the Southern Connector!</p> <p>I reside at 91 Southcrest Drive and my property backs up to the connector. I have been living here since before the connector was built in its current state. I am not afraid of traffic noise, volumes or impact on home values. I believe it will reduce the neighborhood traffic directly. I would like to see it begun without further changes to the plan as there have been too many revisions thereby reducing its effectiveness. I would hate to see bike lanes and additional crosswalks. I support a limited access, 35+ MPH road with stops at Home, Flynn and Lakeside only. I further would like to see the road opened in phases as soon as a section is completed to the previously mentioned streets.</p> <p>Please feel free to contact me.</p> <p>Jay Fisher</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/7	Email	Joe Giallanella	Pine St / South End	<p>In response to last month's Public Outreach meeting on the Champlain Parkway, I am writing to demonstrate my unconditional support for moving the project forward as currently scoped.</p> <p>As a resident and property owner in Burlington who lives on Pine street in the South End, I have first hand understanding of how the South End streets have become overburden by traffic and represent a safety concern for the neighborhood.</p> <p>I commute to work in downtown Burlington via bike, bus, or on foot daily year-round and rarely feel safe crossing the street. The density of traffic and speeds at which commuters travel to get in and out of the city on these neighborhood streets is scary for me and I am an able-bodied, observant traveler.</p> <p>I also have young children who walk to child care and school in the South End and who are learning to ride bikes in the neighborhood. I am uneasy on a regular basis with them on the sidewalks, knowing the crosswalks in this neighborhood have become some of the worst in the city to pass because of stressed drivers seeking alternate routes to get on their way (again at extreme speeds) or because of massive tractor trailers, cement trucks, buses, and car carriers that are too high up to see small children on balance bikes below in the crosswalk.</p> <p>My family and I chose to live in the South End because of the increased development in the area; there are great restaurants, breweries, community organizations and other businesses setting up shop in this neighborhood which is fantastic for the residents and those visiting this part of town. Unfortunately, the infrastructure to support these new organizations and their visitors - namely traffic relief, enhanced safety standards like traffic calming, lighting and sidewalk repairs - are woefully behind. While the Champlain Parkway will not answer all of those issues mentioned, it will alleviate some of the most critical needs, namely improving traffic circulation and providing relief to this vital quadrant of the City.</p> <p>Please ensure that this project proceeds as currently planned to support the well being of the residents of the South End and the promotion of businesses in this area of the City.</p> <p>Thank you, Joe Giallanella Burlington, VT</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/8	Email	Lucia Campriello	Pine St / South End	<p>To whom it may concern:</p> <p>I am writing to extend my full support for moving the Champlain Parkway project forward as currently articulated.</p>	<p>Your support for the Project is noted. This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>

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				<p>I am a resident and property owner, living on Pine street in the South End. And as such I experience every single day the impact to the South End neighborhood of unsupported traffic volume, a detriment to public safety, health and well-being of residents.</p> <p>I commute daily along the Pine Street corridor via bike and on foot daily and year-round and feel unsafe crossing the street (or, feel concerned about the crossing guard's safety at the corner of Pine and Flynn as she does her job). The volume and speeds at which commuters travel to get in and out of the city on these neighborhood streets is harrowing at best and unsafe at worst.</p> <p>I also have young children who walk to child care and school in the South End and who are learning to ride bikes in the neighborhood. I am uneasy on a regular basis with them on the sidewalks, knowing the crosswalks in this neighborhood have become some of the worst in the city to pass because of stressed drivers seeking alternate routes to get on their way (again at extreme speeds) or because of massive tractor trailers, cement trucks, buses, and car carriers that are too high up to see small children on balance bikes below in the crosswalk.</p> <p>My family chose to live in the South End because of the increased development in the area; there are great restaurants, breweries, community organizations and other businesses setting up shop in this neighborhood which is fantastic for the residents and those visiting this part of town. Unfortunately, the infrastructure to support these new organizations and their visitors - namely traffic relief, enhanced safety standards like traffic calming, lighting and sidewalk repairs - are woefully behind. While the Champlain Parkway will not answer all of those issues mentioned, it will alleviate some of the most critical needs, namely improving traffic circulation and providing relief to this vital quadrant of the City.</p> <p>Please ensure that this project proceeds as currently planned to support the well being of the residents of the South End and the promotion of businesses in this area of the City.</p> <p>Thank you, Lucia Campriello Burlington, VT</p> <p>Sent from my iPhone</p>	
10/8	Email	Shawna Shapiro and Garrett Kimberly	17 Foster St	<p>Dear DPW staff, I saw a posting on FPF that you all are looking for comments on the Champlain Parkway project.</p> <p>My husband and I (and 2 kids) live at 17 Foster Street, between Flynn and Ferguson and have dealt with increasing amount of traffic in recent years as drivers use our road as a "shortcut" to bypass Pine. We have reviewed proposed plans, and are in strong support of this project. We hope it moves forward soon!</p> <p>Thank you, Shawna Shapiro and Garrett Kimberly</p> <p>Shawna Shapiro, PhD [she/her/hers] Associate Professor of Writing and Linguistics Director of the Writing &amp; Rhetoric Program Middlebury College Carr Hall 201 802.443.5977 or 206.919.6060 (cell) Website: <a href="http://sites.middlebury.edu/shapiro/">http://sites.middlebury.edu/shapiro/</a> Co-editor of: Educating Refugee-background Students (2018)</p>	<p>Your support for the Project is noted. This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>

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10/8	Email	Alison Duckworth	374 Flynn Ave	<p>As a homeowner on Flynn Ave., I wholeheartedly support this project. Reviewing the map of the project, appears that much thought has been put into the traffic flow, and screening from the residential homes. Overall, it does not look like it will impact that many homes, and it makes sense to flow the traffic by the more commercial buildings on the way into town.</p> <p>I do hope that this project will move forward.</p> <p>Regards,</p> <p>Aiison Duckworth 374 Flynn Ave.</p>	<p>Your support for the Project is noted. This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/8	Email	Michael Long	55 Henry St	<p>55 Henry Street Burlington, VT 05401</p> <p>October 8, 2019</p> <p>Mr. Kenneth Sikora, Jr. Environmental Program Manager Federal Highway Administration 87 State Street Montpelier, VT 05602</p> <p>Dear Mr. Sikora,</p> <p>With regard to the Champlain Parkway design as proposed, the projected one third increase in traffic through the King Street/Maple Street neighborhood is incongruous and unacceptable for a project that is ostensibly intended to alleviate traffic congestion, particularly through residential neighborhoods. That this new road will degrade the status quo instead of improve upon it in this economically challenged neighborhood is especially onerous and embarrassing even. It's reminiscent of the common practice of bisecting city neighborhoods on the "wrong-side-of-the-tracks" when the interstate system was routed through urban areas years ago.</p> <p>We should know and care more about environmental justice by now. Do we?</p> <p>Additionally this project is outdated as designed. State of the art from decades gone by will not serve the future well. Continuous protected and dedicated bike lanes should be a given as should safe roundabouts instead of obsolete signaled intersections.</p> <p>A 20th century road is senseless when we're nearly two decades into the 21st century already.</p> <p>Sincerely,</p> <p>Michael Long</p>	<p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>Bike lanes will be provided where they were determined to be feasible based on state and federal design standards and guidance. Separated bike infrastructure wasn't provided in the Maple and King Street neighborhood because there is not sufficient road width or public right-of-way to construct those features.</p> <p>In consideration of the application of roundabouts for the Pine Street/Maple Street and Pine Street/King Street intersections, it was identified that a single-lane roundabout is not feasible to be constructed at either of these two intersections because of the physical constraints and existing built environment. Although mini roundabouts might be able to fit physically; they are not recommended for the intersections of Pine Street/Maple Street or Pine Street/King Street because of considerations related to the arterial function of Pine Street, truck/bus accommodation, traffic performance, vehicle safety and pedestrian/bicyclist safety.</p>
10/7	Mailed Comment Card	Natalie Braun	11 Skyline Dr, Essex	<p>As many yeas have passed since approval of the Champlain Parkway. A rethinking is in order. The time has come to de-emphasize the automobile and lift up support for mass and active transportation. Providing dedicated bike lanes and controlling rotaries rather than stop lights can offer support for active transportation</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only</p>

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				(walking and cycling) and reduce the CO2 emissions that threaten us all. Any steps we can take to limit our use of and time in autos benefits the health of our planet and the citizenry.	comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/7	Mailed Letter	Linda Smith	107 S Meadow Dr	<p>Dear Mr. Davis</p> <p>As a resident of the south end of Burlington for nearly a quarter of a century, I have watched plans for the “Champlain Parkway” change, and change, and change again.</p> <p>The best change may be a Park n’ Ride lot at I-189 with electric vans to transport people to and from the city center.</p> <p>Yours, Linda Smith</p>	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/7	Email	Dan Daniel	341 Pearl St Apt 2	<p>TO: Mr. Kenneth Sikora, Jr. Environmental Program Manager, Federal Highway Administration 87 State Street Montpelier, VT 05602</p> <p>Mr. Sikora:</p> <p>I am writing to oppose the proposed design of the Champlain Parkway in Burlington. Although it may have been adequate when first developed years ago, basic transit design has progressed far beyond what is proposed.</p> <p>I lived in San Francisco until I moved to Burlington 4 years ago. San Francisco has a fairly well-developed transit structure that accommodates buses, pedestrians, and bicyclists as well as single-occupancy cars. I used all modes except cars on a regular basis.</p> <p>One truly unbelievable element of the proposed design is the mixed-use pedestrian pathway. These designs are barely safe on recreational paths such as the Burlington Bikeway. Pedestrians and bicyclists move in much different manners and mixing them creates tension and conflicts again and again, as I see when I use the Bikeway and as I have seen in other places that attempt to mix the two. Space is limited, I understand, and recreational usage has its own pace.</p> <p>If we are to be serious about alternative transit such as bicycles and pedestrians, it must be safe and reasonable in actual use. Mixed use pathways are not safe and reasonable for commuter and other non-recreational use paths. They are not safe for families. They are not safe for children going to school. Separate pedestrian and bicycle paths are required.</p> <p><b>Another bad part of the Champlain Parkway design is what it will do to the neighborhood around King and Maple and Pine Street. By dumping commuter car traffic onto standard two-lane city streets, the area will become unsafe for residents. It will increase dust and pollution of all sorts for residents and workers in the area. Increased idling at traffic lights will be bad for residents, workers, and will work against any pretense by Burlington of dealing with climate change.</b></p> <p>Roads and highways have a long history in the US of causing environmental and economic impacts on low income and renters while making life calmer and freer of pollution for upper class people. This Parkway lives up to this shameful US practice, diverting traffic from high-value single family homes and increasing traffic in areas of renters and low-income residents. Aren't we better than this 50 year old use of roadways?</p> <p>I believe this violates FHA planning guidelines.</p>	<p>The proposed shared use path was designed in accordance with state and federal standards that specify required slope, width, and clearance from obstruction on either side of the path.</p> <p>In addition to the shared use path adjacent to Pine Street, improvements include northbound bike lane between Lakeside Avenue and Locust Street, shared lane markings, and buffered bike lanes for northbound and southbound cyclists between Kilburn Street and Maple Street. Bicyclists desiring a more efficient route will benefit from improved on-road bicycle accessibility along Pine Street.</p> <p>Separated bike infrastructure wasn’t provided because there isn’t enough width available in this built-up City corridor on Pine Street between Maple Street and Main Street.</p> <p>Bicyclists desiring to traverse a more efficient route will benefit from improved on-road bicycle accessibility along Pine Street. On-road accommodations on Pine Street will include a northbound bike lane between Lakeside Avenue and Locust Street, and buffered bike lanes between Maple and Kilburn. In between, there will be shared lane markings to alert drivers to the presence of bicyclists.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is</p>

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				<p>In case you are not aware, one advocate of the plan, City Councilor Joan Shannon, is a real estate agent centered on the South End of Burlington- the area that will have the greatest benefit from the diversion of traffic from the single family homes in the area. I think this puts a new light on her remark from VT Digger-</p> <p>“I know that many, many people have bought houses being told that they’re going to imminently have traffic relief with this road and it hasn’t happened, and they’ve been very disappointed,” Shannon said. “And probably many of them would have lived in those homes for a period of time and then moved.”  <a href="https://vtdigger.org/2019/08/25/decades-later-champlain-parkway-construction-finally-nears/">https://vtdigger.org/2019/08/25/decades-later-champlain-parkway-construction-finally-nears/</a></p> <p>I wonder who has been telling people for years that this Parkway was coming?</p> <p>There are options that accommodate the 2009 FSEIS guidelines for environmental justice issues, and that incorporate functional transit options in a safe and healthy manner. Please stop this project as presently proposed.</p> <p>Thank you for your time.</p> <p>Best- Dan Daniel</p> <p>341 Pearl St Apt 2  Burlington, VT 05401</p> <p>415-425-1713</p>	<p>destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>Air analysis completed for the project shows that it is in compliance with the National Ambient Air Quality Standards (NAAQS) and Vermont’s Air Pollution Control Division (APCD) guidelines. There are no impacts anticipated, nor mitigation required.</p> <p>The Project has always complied with the guidelines and processes available. Environmental Justice (EJ) was evaluated as part of previous NEPA submissions, including the 2009 FSEIS. FSEIS and NEPA documentation was developed in accordance with FHWA Order 664023 and the Guidance on Environmental Justice and NEPA. EJ was considered at the time of these submissions per the guidance available at the time and is being re-evaluated today consistent with the current EJ guidance.</p> <p>Environmental Justice (EJ) populations are those that are minority, low-income, or tribal. A minority population may be present if the minority population in the area is “meaningfully greater” than the minority population percentage in the general population. Low-income communities are defined by the US Department of Health and Human Services (HHS) poverty guidelines.</p> <p>The EJ analysis for this Project identified a minority community in the Maple/King neighborhood. Based on the HHS poverty thresholds, there are no low-income communities within the Project area.</p> <p>While the neighborhood does not meet the US Department of Health and Human Services (HHS) low-income thresholds, a number of design features have been included in the Project to mitigate the impact of traffic on the community. These features include improved pedestrian and bicycle facilities, new, consistent, ADA compliant sidewalks and sidewalk access ramps, bicycle markings, curb extensions, raised intersections, rapid flashing beacons, and exclusive pedestrian phases.</p>
10/5	Email	Charles Simpson	83 Summit Ridge	<p>Hello,</p> <p>I hope you are carefully considering the analysis made by the Pine Street Coalition titled Champlain Parkway Change Analysis, dated 3/30/18. It is trenchant. Let me add my own thoughts.</p> <p>Considering major changes have occurred to the South End since 2009, a new EIS is required before any construction of the Parkway is contemplated. Why?</p> <p><b>1) New USDOT requirements include consideration of disproportionate impact on low-income and racial minority populations. The planned route will dump considerably more vehicles than at present into the Pine/Maple/King area which is well above city averages for those over 65, for racial minorities,</b></p>	<p>This LS DSEIS was prepared in accordance with the requirements of Executive Order 12898 and the Federal Highway Administration’s guidelines pertaining to Environmental Justice.</p> <p>The US Environmental Protection Agency (EPA) Office of Environmental Justice defines environmental justice (EJ) as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the</p>

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				<p><b>and for low-to-moderate income residents.</b> Because Decker Towers houses a large concentration of low income and physically challenged residents, this is of special concern. We know that in the last 8 years, pedestrian use of Pine Street has doubled as it has evolved into an arts, restaurant, and enterprise zone. Because the profile of nearby residents includes lower income and physically handicapped people, this means that the old, those on electric wheel chairs, young families with toddlers, and cyclists would be competing for the use of the same shared-use paths for much on Pine, clearly a dangerous design in violation of USDOT regulations.</p> <p>2) As we face torrential rain episodes that stress the capacity of our rivers and wetlands to absorb and redirect surface water, the current plan would squander the ability of Englesby Brook to mitigate flooding by channeling 200 ft. of it into a culvert under the planned expressway, accelerating its flow and associated erosion and lake contamination. Rather than exploit the potential of this riparian channel as a safe pathway to Champlain Elementary School, as a natural area, and as a rain garden slowing and absorbing surface water, the Parkway paves much of it over with an impermeable surface. In an era of climate emergency, this is unconscionable.</p> <p>3) Our Municipal Plan calls for complete streets, which include not only separate and distinct bike and pedestrian paths, but street connectivity. The current plan for the parkway adds zero separate paths and creates dead ends on numerous streets that are now connected. The most significant of these truncated streets is the main commercial thoroughfare of the South End itself, Pine Street. This will deprive residents of essential access to the adjacent commercial district in South Burlington, including low income residents in South Meadow and will further congest Shelburne Road, making it the sole route out of the South End. Buses and emergency vehicles will be greatly limited in their routes as well as walkers, bikers, and drivers. Commercial routes from Pine Street will be cut off. This makes no sense and is retrogressive from a traffic planning perspective.</p> <p>4) Recent history tells us that Briggs street and the surrounding area floods with heavy rain. This area is also the site of significant commercial investment, with City Market and Petra Cliffs. Rather than solve the flooding problem, the City has continued with their "wait and see" approach, neither upgrading the road or even paving it. Other than in parkland, Briggs may be the only dirt road left in the city, even as a large retail food store was construct on it at Flynn Ave. Why? The City is replicating the approach it used 30 year ago in refusing to complete the C1 section at Home Ave in order to blackmail the public into approving a more comprehensive road plan. Only when the Parkway is in does the City plan to rebuild Briggs. And yes, to create yet another dead end on a vital commercial and residential street. And what will Briggs St. be at that point? A service road parallel to the Parkway and mere feet away, adding useless additional paved surface to a flood-prone area. How thoughtless! How expensive!</p> <p>5) The purpose and need for this traffic conduit from I-89 to downtown has been obviated by changes to the downtown and South End over the last decade. As an Enterprise Zone, the South End is not a traffic corridor as envisioned by the earlier plan but a vibrant commercial and cultural area. It is also the site of university operations. And the downtown is no longer the destination of those seeking access to department stores. The downtown mall is gone, Macy's is gone, while nearby malls in South Burlington and Williston provide the big box shopping area consumers seek. Downtown has become much more residential and boutique oriented around restaurants and small shops and offices. Transient parking is sharply reduced. While it remains a recreational and tourist destination, downtown is no longer the focal point for mass shopping. What's needed is not a \$45 million limited access roadway but frequent electric buses on Pine and nearby streets to accommodate the new reality. At the same time, we need to preserve the job-growing potential of the South End's Enterprise District, not pave much of it over with a limited access highway. This is wrong-headed.</p> <p>What to do?  Open the C1 section with a roundabout at Pine and the terminus at Home. Cancel the C2 from Flynn to Lakeside completely. Improve Pine with separate bike/walk corridors; and rebuild Briggs Street from Home to Flynn as a complete, neighborhood Street. Finally, add mini-roundabouts at Maple and King. This is cheaper by many millions and saves the South End from useless destruction.  Thanks, Charles Simpson, 83 Summit Ridge, Burlington, VT.</p>	<p>development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.”</p> <p>The Project has always complied with the guidelines and processes available. Environmental Justice (EJ) was evaluated as part of previous NEPA submissions, including the 2009 FSEIS. FSEIS and NEPA documentation was developed in accordance with FHWA Order 664023 and the Guidance on Environmental Justice and NEPA. EJ was considered at the time of these submissions per the guidance available at the time and is being re-evaluated today consistent with the current EJ guidance.</p> <p>Environmental Justice (EJ) populations are those that are minority, low-income, or tribal. A minority population may be present if the minority population in the area is “meaningfully greater” than the minority population percentage in the general population. Low-income communities are defined by the US Department of Health and Human Services (HHS) poverty guidelines.</p> <p>The EJ analysis for this Project identified a minority community in the Maple/King neighborhood. Based on the HHS poverty thresholds, there are no low-income communities within the Project area.</p> <p>While the neighborhood does not meet the US Department of Health and Human Services (HHS) low-income thresholds, a number of design features have been included in the Project to mitigate the impact of traffic on the community. These features include improved pedestrian and bicycle facilities, new, consistent, ADA compliant sidewalks and sidewalk access ramps, bicycle markings, curb extensions, raised intersections, rapid flashing beacons, and exclusive pedestrian phases.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and</p>

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					<p>removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>The proposed shared use path was designed in accordance with state and federal standards that specify required slope, width, and clearance from obstruction on either side of the path.</p> <p>New, consistent sidewalks compliant with ADA-requirements will be provided throughout the Project. The existing sidewalk along Pine Street is not continuous on each side and impassable in some locations.</p> <p>There will be new continuous sidewalks constructed along the entire project; 5 feet is the standard width for sidewalks and is what has been included in the plans; all sidewalks along the project will be either newly constructed or replaced by a 10-foot-wide shared use path.</p> <p>The proposed curb extensions have been designed to accommodate the largest vehicles expected at each intersection. The objective of the curb extensions is to provide better sight distance, visibility and shorter crossing distances for pedestrians and to promote speed management through a more compact design. Considering the vehicle composition of traffic flow on Pine Street and side streets, and the City's policy for promoting Complete Streets concepts, curb extensions have been proposed where appropriate. One purpose of the Champlain Parkway is to remove truck traffic from local roads such as King Street.</p> <p>In terms of the City's planning documents, the Champlain Parkway has been included in the municipal development plan for many years and has always been incorporated or considered in the City's planning projects and is consistent with the City's planning goals. "Complete Streets" is a conceptual planning term that is not intended to be a one-size-fits-all approach to planning and design. Complete Streets concepts have been considered and incorporated into the Project planning and design process. In addition, numerous design enhancements have been included as a result of public outreach and engagement. The Project has undergone numerous changes since the 1980's design and has been substantially reduced in scope from the original four-lane design.</p>

9/26

Materials handed to study team at public meeting

Carolyn Bates

Caroline Street, Tract 8 low

*Carolyn Bates*

### King St and Maple St Neighborhoods, section 8 housing

**STOP LIGHT \*\*\***

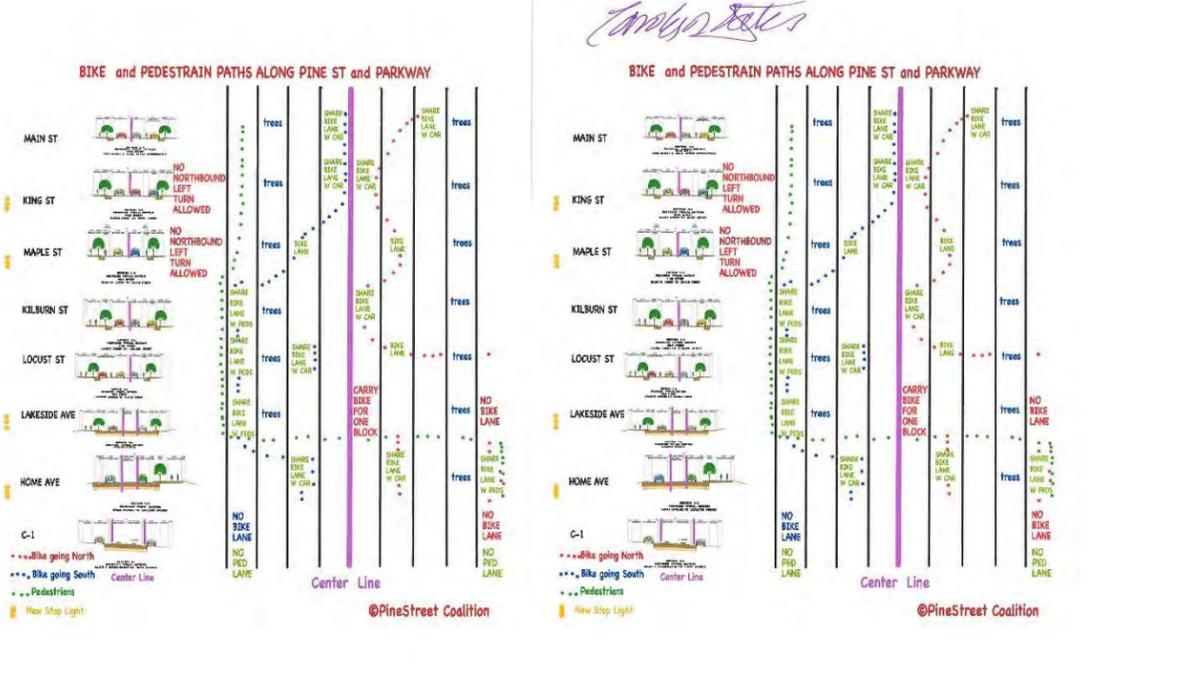
1. Slower 30 sec to go thru
2. Less safe
3. 2 times more expensive
4. Heavy pollution
5. \$5000 minimum cost per year
6. NO LEFT TURNS Northbound FROM PINE TO KING OR MAPLE
7. Not bike friendly
8. Not pedestrian friendly

**ROUNDABOUT**

1. Faster 8 sec to go around
2. More Safe
3. Cheaper 50% less money
4. Greener ie less pollution
5. Maintenance Nominal
6. Left hand turns on King and Maple.
7. Bike Friendly
8. Pedestrian Friendly

\*\*\* Six additional traffic signals: Pine/King, Pine/Maple, Parkway/Lakeside, Parkway/Sears Lane, Parkway/Flynn and Parkway/Home.

*Carolyn Bates*

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10/10	Email	Tony Redington	521 Green Street Apt 4, San Francisco, CA	<p>May 11, 2006</p> <p>Mayor Bob Kiss and Burlington City councilors City Hall Burlington, VT 05401</p> <p>Dear Mayor Kiss and City Councilors:</p> <p>This letter implores in the name of Burlington citizen safety and the integrity of public process, your amending the November approval of the Southern Connector project to incorporate roundabouts at four of the five intersections and a right-turn only provision at the Sears Lane entries onto the Southern Connector.</p> <p>Overall, the roundabout option cuts estimated crashes at the five Southern Connector Line intersections as follows (note a disabling injury means a person taken by emergency personnel to a hospital or a fatal):</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>

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				<p style="text-align: center;"><b>TABLE 1: CRASH, INJURY AND INJURY COST REDUCTIONS FROM CONVERSION OF SOUTHERN CONNECTOR INTERSECTIONS FROM SIGNALS TO ROUNDABOUTS AND ONE RIGHT-TURN ONLY INTERSECTION</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;"><u>Crash Categories</u></th> <th style="text-align: center;"><u>Total with Signals</u></th> <th style="text-align: center;"><u>Total as Roundabouts</u></th> <th style="text-align: center;"><u>Roundabout % Reduction</u></th> </tr> </thead> <tbody> <tr> <td colspan="4"><b>Total Crashes</b></td> </tr> <tr> <td>Per Year</td> <td style="text-align: center;">10</td> <td style="text-align: center;">7.5</td> <td style="text-align: center;">25</td> </tr> <tr> <td>Per Decade</td> <td style="text-align: center;">100</td> <td style="text-align: center;">75</td> <td style="text-align: center;">25</td> </tr> <tr> <td colspan="4"><b>Injuries</b></td> </tr> <tr> <td>Per year</td> <td style="text-align: center;">6.8</td> <td style="text-align: center;">0.6</td> <td style="text-align: center;">90</td> </tr> <tr> <td>Per Decade</td> <td style="text-align: center;">68</td> <td style="text-align: center;">6</td> <td style="text-align: center;">90</td> </tr> <tr> <td colspan="4"><b>Disabling Injuries</b></td> </tr> <tr> <td>Per year</td> <td style="text-align: center;">3.5</td> <td style="text-align: center;">0.4</td> <td style="text-align: center;">90</td> </tr> <tr> <td>Per Decade</td> <td style="text-align: center;">35</td> <td style="text-align: center;">3.2</td> <td style="text-align: center;">90</td> </tr> <tr> <td colspan="4"><b>Roundabout Reduction</b></td> </tr> <tr> <td></td> <td style="text-align: center;"><b>Crashes</b></td> <td style="text-align: center;"><b>Injuries</b></td> <td></td> </tr> <tr> <td>Per year</td> <td style="text-align: center;">2.5</td> <td style="text-align: center;">6.2</td> <td></td> </tr> <tr> <td>Per Decade</td> <td style="text-align: center;">25</td> <td style="text-align: center;">62</td> <td></td> </tr> <tr> <td colspan="4"><b>Reduction Value</b></td> </tr> <tr> <td>Per Decade</td> <td style="text-align: center;">\$160,000</td> <td style="text-align: center;">\$2.26 Million (excludes fatalities)</td> <td></td> </tr> </tbody> </table> <p>With two twenty-something sons living two blocks from the Pine Street/Lakeside Avenue intersection, you can be sure that as a parent, their safety in moving through this intersection and the Southern Connector is of concern to this writer. Research reported in 2005 by the University of California at Berkeley stated engineering evaluation of existing and potential signal technology found a minimum of 50 percent increase in vehicle crashes in the best signal concept compared to stop and/or yield intersections, further confirming the huge benefit conveyed by roundabout conversion of any type of intersections.</p> <p>There are a number of factors bringing into question both the quality and integrity of information provided the Mayor and Council for consideration. Clearly it appears the Mayor and Council were poorly served by City staff and paid consultants regarding the recommended roundabout option on the Southern Connector project.</p> <p>Before going into “integrity factors,” consider the powerful new roundabout technology and the dreadful price Burlington and neighboring citizens pay for the obsolete stop signal technology, a technology being abandoned wholesale. Surely the Mayor and Council are fully aware of the New York Department of Transportation (NYDOT) abandonment statewide early last year of stop lights and it investing only in roundabouts. Since roundabouts drop pedestrian and car occupant injuries by about 90 percent (see the Insurance Institute for Highway Safety study and its website “Q and A” on roundabouts) the NYDOT feared that in spite of the protection of sovereign immunity, lawsuits arising from injuries at new stop lights would lead to judgments for negligence against the State. As the Mayor and council are also well aware – and a US Supreme Court decision last month again affirmed – sovereign immunity in negligence suits enjoyed by the State under the U.S. Constitution does not extend to lower level jurisdictions including cities and towns.</p> <p>The stop light cost in Burlington for all users of intersections comes in the form of dead bodies. In 2004, Burlington businessmen Charles Burch riding his bicycle was struck and killed at the Manhattan Drive/VT 127 intersection. About a year ago, a 20-something driver was T-boned by another vehicle and killed at Main and Spear Streets – killed by an emergency vehicle that supposedly is to save lives not take them! And, ironically, Linda Ente of Winooski, a 30-something worker at Price Chopper on her way home, died trying to cross the Home Avenue/Shelburne Road intersection. How strange and sad that then Mayor Clavelle and Council who could provide a pedestrian-safe intersection should choose to build another unsafe signal down the street on Home Avenue where Burlington recorded its most recent pedestrian intersection death (1998)!</p>	<u>Crash Categories</u>	<u>Total with Signals</u>	<u>Total as Roundabouts</u>	<u>Roundabout % Reduction</u>	<b>Total Crashes</b>				Per Year	10	7.5	25	Per Decade	100	75	25	<b>Injuries</b>				Per year	6.8	0.6	90	Per Decade	68	6	90	<b>Disabling Injuries</b>				Per year	3.5	0.4	90	Per Decade	35	3.2	90	<b>Roundabout Reduction</b>					<b>Crashes</b>	<b>Injuries</b>		Per year	2.5	6.2		Per Decade	25	62		<b>Reduction Value</b>				Per Decade	\$160,000	\$2.26 Million (excludes fatalities)		
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				<p>All three Burlington fatal crashes happened on ordinary busy streets with 25 mph speed limits. The roundabout cuts injuries and injury severity for all users primarily by (1) physically constraining speeds of vehicles, key, especially for pedestrians, to safely navigating street crossings and (2) using a design with crosswalks exposing pedestrians to just 12-foot wide lanes and a midstream pedestrian refuge.</p> <p>How ere the Mayor and Council diverted from and even misled in regard to the roundabouts option along the Southern Connector? Note that hundreds of roundabouts are now being built in the US, there are more than an estimated 2,000 in place, and the US should reach and surpass the 1,000 level of roundabout installations yearly attained by France (which in 2005 totaled 30,000 and growing 1,000 yearly). Now a roundabout a day opens somewhere in the U.S.</p> <p>(The modern roundabout celebrates its 40<sup>th</sup> birthday from it emergency in the U.K. in 1966. In the US, the roundabout now is sweet sixteen and in the northeast still a 10 year old kid, the first roundabout being built in Montpelier in 1995.)</p> <p>The emphasis in this communication is safety – the Brattleboro roundabout in its first four and three quarters years dropped injuries from 52 to 1, and Montpelier’s injury rate dropped 60% in the first ten years compared to the before condition.</p> <p>Vermont leads among northeastern states in installing the first single lane (Montpelier) and multi-lane (Brattleboro) roundabout. It also lead in providing opportunities for roundabout training – about a dozen training sessions involving virtually all the top national and international roundabout engineers and practitioners. Burlington and South Burlington are noteworthy in their relative lack of attendance at these workshops, although practically all those trainers coming to Vermont also did field review of several Burlington area intersection.</p> <p>For example, Howard McCulloch (<a href="http://www.roundabouts.cc">www.roundabouts.cc</a>), presented a day-long workshop at the Pavilion Auditorium last June. McCulloch probably stands as the leading U.S. roundabout practitioner today, most experienced trainer, and heads the leading department of transportation roundabout development team located at NYDOT. The Burlington Public Works Department top administrators, including Steve Goodkind, met with McCulloch and Mayor Clavelle the day after the presentation to discuss roundabouts in Burlingtno. McCulloch was told by Goodkind and his staff, in reagard to the Southern Connector, it had been determined that there was not sufficient right-of-way for roundabouts along the Southern Connector intersections. This is in spite of comments provided to the City that all the intersections involved note only had sufficient right-of-way without disturbing adjacent land use for a single lane roundabout configuration (all that is needed) but also for two lane roundabouts if needed. McCulloch and this writer following the meeting with Mayor Clavelle and his Public Works staff undertook a field review of the Connector intersections and identified now right-of-way constraints. (Note that two Vermont transportation policy planners count among those in the regional and state agencies forced to leave employment for espousing roundabouts.)</p> <p>In fact the Public Works Departments “value engineering” report dated 2004 by Ventry Engineering and a second firm, McFarlene and Johnson, recommendation number 2, p. 3, “Signalized Intersections” states in part:</p> <p style="padding-left: 40px;">“... roundabouts in lieu of signalized intersections... the Value Engineering Team [a multi-jurisdictional and multi-disciplinary group including City representatives] recommends that the value engineering alternative be implemented. This alternative would provide roundabouts in lieu of signalized intersections at Home Avenue, Lakeside Avenue [sic] Lakeside Avenue/Pine Street and the Pine Street/Battery Street Extension... possible savings \$396,000.”</p>	

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				<p>One would expect that dollar savings would reflect the value of avoided accidents with roundabouts, the \$2.32 million estimated in Table 1 above, but the value engineering savings are based only on construction costs!</p> <p>The only arguments advanced regarding Southern Connector roundabouts are “public familiarity” (value engineering report, p. 16) and the Public Works staff positing lack of “community acceptance.” With roundabouts built in the US daily (even in the land of “rotaries” in Massachusetts and “traffic circles” in New Jersey) with tremendous safety gain, drivers are apparently able to easily “familiarize” themselves with roundabouts. Community acceptance on the surface presents a more problematic factor except there are readily available antidotes. Examples include commitments to remove a roundabout(s) if the neighborhood is not satisfied (used in Voorheesville, N.Y., by NYDOT as outlined at a public meeting on 9/10), installation of a temporary roundabout (see University Place, WA, for their experience), and present a pro-active neighborhood education program and community-wide information initiatives. All public opinion surveys after roundabouts were installed in the US (Montpelier’s study was the first) show 80-90% acceptance and support for the roundabout treatment. The NYDOT has not had any suggestion by the Voorheesville community to make good on the promise of replacement of the roundabout built in 2002 with a signal!</p> <p>A note on traffic growth, or rather the traffic moving toward a plateau in the 90s and flat numbers since 1999. Statewide the first slowing of car travel since numbers began to be collected in the 1920s occurred in the 90s when traffic grew at the slowest rate for a decade, 17% (the pattern here is common for all the New England States). And, since 1999, traffic numbers have plateaued and the current trend indicates a no-growth for this decade with a decrease or increase in the -5 to +5 percent range.</p> <p>The consultants on the Southern Connector project, Clough Harbour Associates, Albany, developed projections for 2008 (base), 2018, and 2028 which reflect these trends. The average growth for the 2008 - 2028 period for the Southern Connector peak p.m. hour entering traffic is a paltry 5%. This may be substantially overstated, but still in miniscule compared to the huge numbers alleged for the Circ. Actual historical numbers for three locations along Pine Street show a peaking of traffic numbers between 1992-1994, with a 1.5% decline from those peaks to the most recent numbers. (VADOT recorder codes at D 444, 541, and 170- D541 measures traffic between Lakeside Avenue and Locust Street along Pine Street.) This traffic information reflects numbers typical throughout Vermont, a true indicator that the golden age of the automobile and public policies associated with that golden age have long past the point of no return.</p> <p>There can be no doubt the Mayor and Council have been poorly served by City staff in regard to the Southern Connector and roundabouts. The City has been even more poorly served by its paid consultant, Clough Harbour of Albany. It is disturbing to think that if Clough Harbour brought the Southern Connector proposal with stop lights to the NYDOT, after the NYDOT intersection staff were able to get off the floor from uncontrollable laughter, they would throw the consultant out on their ear. More importantly, it is inconceivable that with safety a concern this out-of-state consultant would bring engineering plans guaranteed to cause injury and even fatal injuries to the City of Burlington citizenry – and place two stop light installations surely to result in an injury or two to City staff or visitors to the sprawling Public Works facility!</p> <p>In fact, while Clough Harbour brings stop lights to Burlington, it brings a major downtown roundabout on the busiest intersection on Maine Street in Keene (N.H.) at the Post Office and Keene State College gateway – a two-lane roundabout set for letting to contract later this year (see the Keene Sentinel). The Keene traffic numbers for the Main Street intersection (and large numbers of pedestrians also) are about double those for the busiest Southern Connector intersection, Pine and Lakeside..</p> <p>Truly, the signal intersection is the American equivalent of the land mine, a land mine that explodes about every two hours as another American dies at a stop light intersection in the U.S.. No surprise then that the U.S. dropping from number two to ninth in highway safety in recent years as all countries but one which has</p>	

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				<p>passed us features heavy investment in roundabouts. Britain, the origin of the modern roundabout continues to stand at number one in highway safety.</p> <p>Up to this point only the safety benefit has been mentioned. U.K. roundabout guru and software author Barry Crown town Keene citizens “the only good reason against roundabouts is that there are no good arguments.” Roundabouts at the So. Connector intersections mean less delay for all users by tens of thousands hours yearly, cutting gasoline consumption by tens of thousands of gallons yearly, shorter through corridor travel times while decreasing speeds (!!), less pollution and greenhouse gas generation (stop lights move Burlington away from Climate Action goals while roundabouts move towards those goals), facilitating land use on lots adjacent to the roundabout, lower maintenance costs and electrical usage, enabling denser development and constitute a highly effect sprawl-buster, and improve both the quality of the transportation trip as well as the overall scenic quality of the City (etc., etc.).</p> <p>The record already shows should a serious injury or fatality occur at any new stop light (like the Shelburne Road project) that victims will sue all responsible for negligence for knowingly building defective infrastructure. And anyone familiar with the defects surely advice the injured to sue so that others will not be subjected to such an terrible, unnecessary incident. The first rule of quality is to do the job right the first time – stop signals by definition represent poor quality work. Like the rule in medicine, our task in transportation safety is first to do no harm.</p> <p>The Mayor and Council can take action now – or even after construction begins – to replace the stop lights with roundabouts. Do we really have to have someone face immolation at a Southern Connector stop like to bring the message home to you again? Did the deaths of Linda Ente, Raymond Herbert, and Charles Burch hold ho meaning? Must we intentionally kill and injure more by installing more American land mines, the stop light?</p> <p>Thank you for your consideration.</p> <p>Yours truly,</p> <p>Tony Redington</p> <p>Attachment “Technical Notes”</p> <p>Cc Burlington City Planning Office  Chapin Spencer, Director, Burlington Local Motion  Vermont Bicycle and Pedestrian Coalition  Chris Kilian, Vermont Conservation Law Foundation  Dwn Terrill, Secretary, Vermont Agency of Transportation  Senator Richard Mazza, Chair, and members of the Senate Transportation Committee  Rep. Richard Westmand, Chair, and members of the House Transportation Committee  Scott Johnstone, Executive Director, Chittenden County MPO  Gregg Brown, Executive Director, Chittenden County Regional Planning Commission  Betch Sachs, Burlington Alliance for Climate Action  Vermont Governor James Douglas  Director Steve Goodkind, Department of Public Works  Charles Basner, Division Director Federal Highway Administration  Vermont U.S. Senator James Jeffords  Vermont U.S. Senator Leahy  Vermont U.S. Congressman Bernard Sanders  Joshua and Benjamin Redington, Burlington</p>	

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				<p>Technical Notes to Letter of May 15, 2006 to the Burlington Mayor and City Councilors</p> <p>The following notes provide some additional information on calculations and assumptions contained in the May 15, 2006 letter from Tony Redington, 521 Green Street, Apt. 4, San Francisco, CA 94133 to Mayor Kiss and City Councilors of Burlington, Vermont.</p> <p>First in regard to Table 1, data from the Vermont Agency of Transportation (VAOT) "High Crash Locations Report" (2005) provides the latest cost estimates from the National Safety Council \$6,400 property damage only; \$36,500 injury; and \$1 million fatality. Table 1 assumes no fatalities, a conservative assumption since the "share" of fatalities at major City intersections cost could reasonably allocated to the four Southern Connector intersections. To obtain the number of crashes at the Southern Connector intersections, the average of urban crash rates for major arterial/collector, major arterial/major arterial, and principal arterial/minor arterial, 0.323 per million entering vehicles was used. The source of this data is a VAOT table "Summary Statewide Average Crash Ratse 1998-2002."</p> <p>To determine injuries per crash in Table 1 a random sample of 20 of the high crash location in the VAOT 2005 was utilized. An arbitrary factor of 0.5 of signal injuries as disabling was utilized.</p> <p>Estimates of annual vehicles at each intersection were as follows:</p> <ol style="list-style-type: none"> <li>(1) The peak hour for 2018 was utilized</li> <li>(2) Each peak hour was multiplied by 10 to represent daily traffic entering the intersection</li> <li>(3) Each intersection estimated daily entering traffic was multiplied by 365 to represent millions of vehicles entering each intersection yearly</li> </ol> <p>To obtain number of projected crashes per So. Connector intersection, the millions of vehicles per year entering the intersection were multiplied by the VAOT average of crash rates determined above.</p> <p>Tony Redington May 2006</p>	

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				<p style="text-align: center;">Vermont Agency of Transportation Program Development Division Highway Research Unit</p> <p style="text-align: center;"><b>SUMMARY STATEWIDE AVERAGE CRASH RATES 1998-2002</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">SECTIONS</th> </tr> <tr> <th style="text-align: left;">Functional Classification</th> <th style="text-align: right;">Rate (Crashes/M/M<sup>2</sup>)</th> </tr> </thead> <tbody> <tr> <td colspan="2"><b>Rural:</b></td> </tr> <tr> <td>1 Interstate</td> <td style="text-align: right;">0.1365</td> </tr> <tr> <td>2 Principal Arterial</td> <td style="text-align: right;">0.3438</td> </tr> <tr> <td>6 Minor Arterial</td> <td style="text-align: right;">0.6072</td> </tr> <tr> <td>7 Major Collector</td> <td style="text-align: right;">0.9766</td> </tr> <tr> <td>8 Minor Collector</td> <td style="text-align: right;">0.6298</td> </tr> <tr> <td>9 Local</td> <td style="text-align: right;">0.6296</td> </tr> <tr> <td colspan="2"><b>Urban:</b></td> </tr> <tr> <td>11 Interstate</td> <td style="text-align: right;">0.1071</td> </tr> <tr> <td>12 Other Freeways and Expressways</td> <td style="text-align: right;">0.3453</td> </tr> <tr> <td>14 Principal Arterial</td> <td style="text-align: right;">1.7787</td> </tr> <tr> <td>16 Minor Arterial</td> <td style="text-align: right;">1.4358</td> </tr> <tr> <td>17 Urban Collector</td> <td style="text-align: right;">1.4255</td> </tr> <tr> <td>19 Local</td> <td style="text-align: right;">0.3817</td> </tr> </tbody> </table> <table border="1" style="width: 100%; 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Also attached to email:

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10/10	Email	Fortieth Burlington, LLC	Innovation Center (128 Lakeside Ave)	<p>October 10, 2019</p> <p>By email only <a href="mailto:Burl-Comments@vermont.gov">Burl-Comments@vermont.gov</a></p> <p>Kenneth R. Sikora, Jr. Environmental Program Manager Federal Highway Administration 87 State Street Montpelier, VT 05602</p> <p>Wayne L. Davis Project Supervisor Vermont Agency of Transportation One National Life Drive Montpelier, VT 05633</p> <p>Re: Fortieth Burlington, LLC Comments on Champlain Parkway</p> <p>Dear Gentlemen:</p>	<p>This LS DSEIS was prepared to assess environmental justice concerns related to the Project. The LS DSEIS analysis concludes there are no low-income communities in the study area based on HHS guidelines and a review of Census data. The LS DSEIS identified a minority population in the Maple and King Street neighborhood and concludes the Project will not result in a disproportionately high and adverse effect on this environmental justice community.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the</p>

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				<p>We represent Fortieth Burlington, LLC, the owner of the building and property known as the Innovation Center, at 128 Lakeside Avenue, in Burlington. The Innovation Center houses many tenants which provide services to immigrant, low-income and minority populations, as well as older Vermonters and Veterans, including the Social Security Administration, the Veterans Administration, Fletcher Allen Health Care, a pediatric medial practice, the offices of U.S. Representative Peter Welch, and the Internal Revenue Service. The Innovation Center also includes offices providing services to Vermonters and Burlington community members generally, like AT&amp;T, Verizon, and VEIC. The Innovation Center is an integral part of the community impacted by the Champlain Parkway and is concerned that the Parkway as currently designed disproportionately impacts minority and low income populations, does not meet the purpose and goals of the Project, and because of the passage of time and the changes that have occurred must undergo a new or supplemental environmental impact statement to evaluate the impacts of the Parkway and its alternatives on the existing human and environmental landscape.</p> <p>1. The Champlain Parkway will disproportionately impact minority and low-income populations Based upon the information contained in the 2009 FSEIS, which was published over ten years ago, the project will result in increased traffic on the north-end of Pine Street. Traffic will increase on northern Pine Street from Lakeside to Maple Street, from 14,900 vehicles per day, without the Parkway, to 16,300 vehicles per day with the Parkway. This will result in a 9% increase. In the predominately low-income neighborhoods housing recent immigrant and minority communities, the traffic volumes will increase from 9,200 vehicles per day from Maple to King without the Champlain Parkway, to 12,600 vehicles per day with the Champlain Parkway. This is 37% increase in traffic in neighborhoods housing minority and low-income families with children. According to a representative of one of the immigrant communities, many of these families have large families, with as many as eight children. The traffic between King Street to Main Street is also expected to increase by 22%, from 6,900 vehicles per day without the Parkway, to 8,400 vehicles per day with the Parkway.</p> <p>In contrast, the Parkway will result in a decrease in traffic in the more affluent southern section of Pine Street. The Parkway will remove 72% of traffic from the section of Pine Street, from Home to Flynn Avenues, lined predominately by single family residences. Traffic and its impacts will decrease in areas until Lakeside Avenue. At Lakeside traffic from the new roadway will add to the traffic on the neighborhood streets of Lakeside and Pine Street, resulting in the traffic increases noted above.</p> <p>No measures have been taken to avoid, minimize, or mitigate these impacts on these neighborhoods. The traffic impact, and associated safety, noise, and air quality impacts will be disproportionately borne by the low- income residents of the north Pine Street neighborhood.</p> <p>The population of Burlington generally and the south Pine Street neighborhoods specifically have changed and resulted in a significant increase in minority, low-income, and older populations. The Parkway has not considered the goal of avoiding impacts to these groups in its design and review process as required.</p> <p>The Project does not meet the state purpose and goals for the Project, According to FHWA, the Project is designed to “[r]educe disruption to local neighborhoods and separate the local and through traffic.” The project will increase the traffic and disruption to the northern Pine Street neighborhood. The Project also fails to meet the goal of improving circulation, mobility, and safety on local streets in the study area.” The Project will increase traffic on northern Pine Street and the increase in traffic will increase the risk and opportunities for collision between vehicles and families with children. In the years since 2009, traffic on Lakeside Avenue has increased and the intersection between Pine and Lakeside has already suffered a decrease in the level of service.</p> <p>2. A new or supplemental environmental impact statement must be conducted to evaluate the impact of the Parkway on the changed human and environmental landscape.</p>	<p>southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>Air analysis completed for the project shows that it is in compliance with the National Ambient Air Quality Standards (NAAQS) and Vermont’s Air Pollution Control Division (APCD) guidelines. There are no impacts anticipated, nor mitigation required.</p>

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				<p>The change in population and the increase in the minority and low income residents in the project area along with other “significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts, a supplemental EIS must be prepared” for the decade old FSEIS “so that the agency has the best possible information to make any necessary substantive changes in its decisions regarding the proposal.” 46 Fed. Reg. 18026 (March 23, 1981) (as Amended), Forty Most Frequently Asked Questions, Question 32 (citing 40 C.F.R. § 1502.9 (c)).</p> <p>An environmental impact statement has not been conducted since 2009. In the past decade, the community has changed, the landscape has changed, the rules regarding water quality, flood protection, wetlands, and other environmental factors have changed. Despite these changes and the passage of nearly eleven years, FHWA has failed to conduct a new or supplemental environmental impact statement. FHWA has prepared a reevaluation, 1 which does not take the requisite hard look at the changes to the project. FHWA and its partners failed to take the requisite hard look at the changes that have occurred to the Parkway, the physical environment, the environmental and highway laws and regulations, since the 2009 FSEIS.</p> <p>A. Although a decade has passed the Reevaluation does not include an updated traffic model for the project.</p> <p>Although over a decade has passed since the 2009 FSEIS, FHWA has failed to update the traffic modeling for the project. In April 27, 2018, VTrans Project Supervisor, Wayne Davis recommended to members of the Champlain Parkway Project Team, including FHWA Kenneth Sikora, that the Champlain Parkway reevaluation should include updated traffic modeling. “[P]lease prepare to address the following in the NEPA re-evaluation process: 1) Traffic modeling should be updated....” Email attached as Attachment A.</p> <p>FHWA, the City, and VTrans, however, did not include updated traffic modeling in the internal reevaluation of the Project. Without this study, no updated Levels of Service have been provided to assess the extent of the congestion at the Northern Pine Street Locations specifically and throughout the project generally. Absent this analysis FHWA cannot take the requisite hard look at the impacts of the project on low income and minority neighborhoods specifically and the Burlington community generally.</p> <p>Since the 2009 SFEIS, the Circumferential Highway was abandoned, although it was incorporated into the travel demand model used for the 2009 FSEIS. The Reevaluation did not update future ETC+20 traffic volumes to reflect changes related to additional projects that were not accounted for since the 2009 FSEIS or the abandonment of the circumferential Highway. Adequate information was not presented to determine if the projections built into the ETC+20 design year in the 2009 FSEIS are still valid for the ETC+20 design year in the 2019 Reevaluation.</p> <p>(Footnote: 1 FHWA did not publish or distribute the Reevaluation to the public. Fortieth received a copy from the Pine Street Coalition.)</p> <p>FHWA, the City, and VTrans failed to take the requisite hard look in evaluating the changes to the Parkway and new information that has developed since 2009. In 2018, the Pine Street Coalition wrote to FHWA and then the Governor asking for the preparation of a supplemental EIS due to the passage of time and the significant changes that had occurred since the 2009 FSEIS.</p> <p>When discussing whether to respond to this request, FHWA summarized that the City of Burlington was directing the project. FHWA warned that if the City or VTrans requested a new EIS, “we [FHWA] would have the power of the purse strings and either ask for payback of Federal-aid funds spent on the previous design or require the City and State to fund the new EIS on their own, or both.” December 17, 2018, email from Kenneth (“Rob”) Sikora, Environment/Right of Way Program Manager, FHWA Vermont Montpelier Division to Patrick Kirby, Program Development Team Leader, FHWA Vermont Division (attached as Attachment B to Fortieth’s Comment).</p>	

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				<p>FHWA justified its position that the City and State would suffer a financial penalty if they requested or conducted a new EIS, because FHWA had warned the City of this financial penalty back in 2009.</p> <p>This wouldn't be unfair, we warned the City back in 2009 that we were ready to select the Pine Street alternative shown in the FSEIS, and if they didn't want to go along with that, we would be fine with selecting the No Build alternative and ending the project with no payback of funds. They made a decision to go forward. Not only that, the permitting on this project has been very difficult with appeals ongoing. Throwin the difficulty of having to deal with the Railroad and I just can't imagine there is any desire on the part of the City to throw all that away.</p> <p><i>See id.</i></p> <p>By threatening to cut off funding and requiring the payback of federal funds, FHWA discouraged or imposed an extreme disincentive on the City and State to conduct a supplemental EIS. To avoid fiscal penalty, the City had to recommend that FHWA not conduct a supplemental EIS.</p> <p>The following represents a brief summary of list of changes or new information that have occurred since the 2009 FSEIS which warrant a new or supplemental environmental impact statement with an evaluation of project alternatives, and a public involvement process.</p> <p>B. Champlain Parkway Design Modifications since the 2009 FSEIS.  Since the 2009 FSEIS, the speed limit for the Parkway has changed from 30 miles per hour to 25 miles per hour. The Design vehicle has changed from WB-62, an interstate semitrailer with a length of 68.5 feet, to WB-50, an intermediate semitrailer with a length of 55 feet., with a shorter overhang. The Design Vehicle is the least maneuverable vehicle for the roadway and is used to set characteristics of the roadway.</p> <p>One of the purposes of the project is to correct the deficiency of a north south arterial and to divert traffic coming from the intersection of two principal arterial highways I-189 and Route 7, to and from Downtown Burlington and points east. The Champlain Parkway Design Vehicle has been changed and the size of the design vehicle has decreased and no longer represents an interstate semitrailer. he Champlain parkway design has changed to eliminate the types of trucks found on interstate highways, the trucks the Parkway was intended to accommodate in order to divert traffic coming off I-189 and into downtown Burlington.</p> <p>The design for the C/2 section has changed.  The home Avenue railroad crossing has changed since the 2019 FSEIS.  The Flynn Avenue Railroad crossing has changed.</p> <p>The design for the C/6 section has changed.  The C6 section has changed significantly. The shared use path has been relocated from the south side of Lakeside Avenue to the North Side of Lakeside Avenue.</p> <p>Since the 2019 FSEIS, the project design has changed to include the relocation of the Maltex Driveway, this new design change was not incorporated as part of the Selected Alternative in the 2019 FSEIS.</p> <p>The width of the travel lanes and the cross section of Pine Street have changed.</p> <p>The 2009 FSEIS described the selected alternative as providing two 13-foot minimum travel lanes and an eight-foot parking lane on the eastern side, (where feasible and permitted), curbing and sidewalks. The 2009 FSEIS plan included sidewalks on both the eastern side and western side of Pine Street from Pine Place to Main Street.</p>	

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				<p>Under the new design, a new shared use path will be constructed on the western side of Pine Street between Lakeside Avenue and Kilburn Street. The 2009 FSEIS design includes travel lands designated as shared lanes to accommodate both motor vehicles and cyclists.</p> <p>Under the 2009 FSEIS design, between Lakeside Avenue and Locust Street, the design would accommodate a 13-foot southbound combined bike/turn lane, one 11-foot travel lane in each direction, and a five-foot bike lane in the northbound direction.</p> <p>Under the current design, between Locust Street and Kilburn Street, and between Maple Street and Main Street, the design will feature a two-foot shoulder and an 11 foot shared lane in the southbound direction while the northbound direction will consist of an 11 foot shared lane, a four foot painted parking lane buffer and a seven foot parking lane. Between Kilburn and Maple. The design consists of an 11-foot travel lane, 1.5-foot bike lane buffer and 5-foot bike lane in both directions.</p> <p>In 2016, the City replaced the traffic signal equipment at the intersection of Pine Street and Lakeside Avenue. This has resulted in an intersection LOS B in the AM and C in the PM peak hour. The 2003 LOS for this intersection as reported in the 2009 FSEIS was LOS A in the AM and B in the PM peak hour.</p> <p>Since the 2009 FSEIS, Defendants have modified the Project to include traffic signal control of the access to the Innovation Center, from Lakeside Avenue. The traffic signal operations for Lakeside Avenue and Champlain Parkway have been modified to include traffic control signal control of the driveway access to Fortieth's property at 128 Lakeside Avenue.</p> <p>Currently, Fortieth's access onto Lakeside Avenue is not signalized. The 2009 FSEIS did not incorporate signalization for Fortieth's access onto Lakeside Avenue.</p> <p>As a result of this change, access to Fortieth's property will suffer a significant decrease in Level of Service. Fortieth's access onto Lakeside Avenue currently experiences a Level of Service ("LOS") A. Level of Service or "LOS" is a performance measure used to measure the amount of vehicle delay and congestion.</p> <p>Following Parkway construction, the LOS for Fortieth's access will decrease from LOS A to LOS E (very long delays) in the AM peak hour and LOS F (extreme delays) in the PM peak hour with delays of 55.3 seconds and 114 seconds.</p> <p>Veterans, the elderly, families seeking medical care, constituents seeking assistance, social security benefits or information at offices in the Innovation Center will suffer long delays and congestion trying to access services at the Innovation Center.</p> <p>The traffic volumes in 206 are significantly different from what was projected for the Champlain Parkway Project.</p> <p>The reevaluation did not incorporate the project design changes into a model to determine the project impacts on the environment.</p> <p style="text-align: center;">Rail Operations and Parking</p> <p>Since the 2009, FSEIS, the project has changed to remove the Home Avenue or Grocery Spur and Pine Street Rail Spur.</p> <p>Since the 2009 FSEIS, the project will remove parking spaces from Pine Street. A total of fourteen parking spaces would be lost between Kilburn Street and Maple Street. Approximately 44% of the parking spaces along Pine Street have been eliminated since the 2009 FSEIS.</p>	

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				<p>Under the 2009 FSEIS design, there were 25 public parking spaces along the east side of Pine Street. Some residents of the Jackson Apartments use the eastern side of Pine Street for short-term or guest parking. The 2009 FSEIS concluded that Build Alternative 2, the selected alternative would not impact parking along the eastern side of Pine Street.</p> <p>The 2009 FSEIS, cited the substantial socioeconomic issues associated with the loss of on street parking along pine Street in the vicinity of Maple Street, King Street, and Main Street, as a reason to eliminate the C1, C2, and Pine Street geometric improvements along Pine Street alternative from further consideration. See 2009 FSEIS Chapter 2: Alternatives, cited at, <a href="http://champlainparkway.com/resources/documents/2009FSEIS/Chapter%202%20Alternatives.pdf">http://champlainparkway.com/resources/documents/2009FSEIS/Chapter%202%20Alternatives.pdf</a></p> <p>The reevaluation does not study or evaluate or identify the socioeconomic issues associated with the loss of parking along upper Pine Street. The reevaluation does not discuss or mention the elimination of public parking along the south side of Flynn Avenue between Pine Street and Shelburne Road to construct an eastbound bike lane, paired with a westbound shared lane. The change will eliminate 38 parking spots.</p> <p>The direct and cumulative impacts of the loss of parking from the project and the additional bike lanes approved by the City were not evaluated in the REA.</p> <p>Since 2009 FSEIS, there has been an elimination of bus pull off lanes.</p> <p>C. Land Use Changes. There have been significant changes to land use in the project area.</p> <p>Since the 2009 FSEIS, Champlain College has constructed the Miller Center. The South end City Market store has opened. The City Market submitted a traffic impact study which predicted that the intersection of Flynn Avenue and Champlain Parkway will experience a Level of Service F and 110 second delay with the Champlain Parkway and the City Market in place.</p> <p>The Circumferential Highway was a transportation project that was assumed to be constructed and added to the transportation infrastructure for the 2009 FSEIS.</p> <p>The Lakeside Avenue and Pine Street intersection has changed. An access driveway was incorporated as fourth leg to the intersection, with signal control of the driveway access. The REA does not evaluate or quantify the change in the level of service for this intersection for the project year 2019 and 2039.</p> <p>D. Threatened and Endangered Species and vegetation. Since the 2009 FSEIS, the long-eared bat has been listed as a Threatened and Endangered Species. The area comprising C-2 of the project is composed of forested habitat and has been identified as habitat for long eared bat. The project will clear between 1-2% of the forested habitat within a one-mile radius. The REA does not provide any information on the effects of the clearing long eared bat habitat.</p> <p>The reevaluation concludes that it is uncertain whether the long-eared bat is located within the project or in close proximity to the project or the impacts of the project on the long-eared bat. The reevaluation concedes that the impacts on the long-eared bat are unknown and acoustic surveys are required.</p> <p>Since the 2009 FSEIS, vegetated areas within the C-2 section of the project that had been identified as early successional habitat have now matured into forests. Absent a field survey, there is no information upon which FHWA can conclude that the Project will have no impact on state or federally listed RTE species.</p> <p>When there is uncertainty regarding whether a significant impact will occur as a result of the Project, a supplemental EIS should be prepared.</p>	

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				<p>E. Surface Waters.</p> <p>Since 2009, EPA has revoked the 2002 Lake Champlain TMDL and approved a new TMDL which relies in part on updated stormwater standards to help achieve its phosphorus reduction goals.</p> <p>The Lake Champlain Implementation Plan relies on the implementation of the 2017 Vermont Stormwater Management Manual to achieve its goals of phosphorus reduction.</p> <p>Pursuant to Act 64, the Vermont Clean Water Act, the Department of Environmental Protection updated the stormwater management rules to improve the efficiency of stormwater treatment practices, increase the removal efficiencies for pollutants, and more closely resemble the natural hydrology of the area.</p> <p>The Champlain Parkway does not implement or comply with the 2017 Vermont Stormwater Manual treatment standards.</p> <p>Since the 2009 FSEIS, the designation of Englesby Brook has changed from a cold-water fish habitat to a warm water fish habitat under the 2016 Vermont Water Quality Standards. The project stormwater management system, however, has been designed to conform to standards for cold water fish habitat for discharges to Englesby Brook, which includes a shorter retention time.</p> <p>Englesby Brook is impaired for sediment. The channel protection standard is designed to prevent scour and prevent erosion and additional sediment loading into Englesby Brook</p> <p>F. Wetlands.</p> <p>Since the 2009 FSEIS, two new wetlands have been identified in the project area that will be impacted by the Project. These wetlands were not identified or evaluated in the 2009 FSEIS. The Parkway will permanently fill approximately .389 acres of wetland P, and .064 acres of Wetland Q. Wetland P is a forested and emergent marsh wetland.</p> <p>The 2009 FSEIS did not evaluate the project impacts on these wetlands. The 2009 FSEIS declared that the project would impact .694 acres of wetlands. With the discovery of these two new wetlands, the project will now impact 1.094 acres of wetlands. This is a 57% increase in the wetlands to be impacted by the Parkway. The cumulative effects of the impacts to these wetlands were not evaluated.</p> <p>G. Noise Impacts.</p> <p>The federal regulations and corresponding VTrans noise abatement policy have changed since 2009. VTrans have increased the threshold of reasonable noise abatement measures.</p> <p>In evaluating the traffic noise impacts, the traffic noise impacts should be evaluated for the design year. The design year has changed. There has been no traffic analysis for the new design year.</p> <p>H. Floodplains.</p> <p>Since the 2009 FSEIS, the Federal Emergency Management Agency has identified a portion of the Project Area to be located within a Special Flood Hazard Area (SFH) Zone A. A project located in a Special Flood Hazard Zone A, is located below the base flow elevation. The effect and impact of the project on the floodplain and danger to the flood hazard area was not previously evaluated and considered in the 2009 SFEIS. According to the Agency of Natural Resources “Flood events are Vermont’s most frequent and costly type of natural disaster.”</p> <p>I. Hazardous Materials.</p> <p>Since the 2009 FSEIS, the Vermont DEC regulations for contaminants have changed regarding the procedures for managing development soils and for establishing background concentrations for arsenic, lead, and</p>	

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				<p>polycyclic aromatic hydrocarbons (PAHs). Project activities will disturb contaminated soils. The anticipated contaminants include PCB, lead naphthalene, trichloroethylene (TCE), The proposed Corrective action plan contains an engineering action plan which includes isolation barriers that do not comply with DEC recommendations. “[T]he clean soil cap that will be installed to isolate impacted soil in greenspaces and fill slopes will not achieve the VT DEC recommended thickness of 18-inches.” Page 7 Corrective Action Plan, Appendix B.</p> <p>J. Air Quality. To assess air quality emissions, the 2009 FSEIS relied on the MOBILE6 Mobile Source Emissions Factor Analysis. Since 2009 FSEIS, EPA has developed and implemented newer state of the science emission modeling systems that estimate emissions for on-road motor vehicles for criteria pollutants, greenhouse gases, and air toxics.</p> <p>The reevaluation does not discuss, nor evaluate the new state of the science emission modeling system and why there is no analysis of the project emissions under the MOVES 2014 modeling system.</p> <p>Construction of the project will involve disturbance of hazardous materials. There is no discussion of air quality impacts from the hazardous material storage in the reevaluation.</p> <p>There is no evaluation of the potential impacts of the particulate matter into the air and its effect on human health.</p> <p>K. Climate Change. Since the 2009 FSEIS, Climate change science continues to expand and refine our understanding of the impacts of anthropogenic Greenhouse gas emissions (GHG emission).</p> <p>After the 2009 FSEIS was published, the Environmental Protection Agency (EPA) issued a finding that the changes in our climate caused by elevated concentrations of greenhouse gases in the atmosphere are reasonably anticipated to endanger the public health and public welfare of current and future generations.</p> <p>In 2015, EPA acknowledged more recent scientific assessments that “highlight the urgency of addressing the rising concentration of CO2 in the atmosphere,” finding that certain groups are especially vulnerable to climate-related effects.” See EPA, <i>Final Rule for Carbon Pollution Emission Guidelines for Existing Stationary Sources Electric Utility Generating Units</i>, 80 Fed. Reg. 64661, 64677 (Oct. 23, 2015).</p> <p>The impacts of climate change are already being felt in communities across the country. More frequent and intense extreme weather and climate-related events, as well as changes in average climate conditions, are expected to continue to damage infrastructure, ecosystems, and social systems that provide essential benefits to communities. See Fourth National Climate Assessment, Summary Findings, available at <a href="https://nca2018.globalchange.gov/">https://nca2018.globalchange.gov/</a></p> <p>The National Climate Assessment, released by the federal government in 2014, warns that extreme weather events will progressively increase during this century. The northeastern states in particular are projected to get wetter in the winter and spring. <a href="https://climatechange.vermont.gov/our-changing-climate/what-it-means/flooding">https://climatechange.vermont.gov/our-changing-climate/what-it-means/flooding</a>.</p> <p>Since 2009 FSEIS, Vermont has been hit by tropical storm Irene and the Northeast has suffered powerful storm events including Sandy.</p> <p>Climate change disproportionately affects low-income communities. Climate change presents added risks to interconnected systems that are already exposed to a range of stressors such as aging and deteriorating infrastructure, land-use changes, and population growth.</p>	

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				<p>Since the 2009 FSEIS, Vermont has codified an energy policy that promotes reliable and sustainable sources of energy "that assures affordability and encourages the state's economic vitality, the efficient use of energy resources and cost-effective demand side management; and that is environmentally sound." 30 V.S.A. §202a(1).</p> <p>The most recent comprehensive energy plan (2016) establishes a number of goals including "improv[ing] outdoor air quality by reducing emissions from transportation, home and business heating, and energy use, and production." CEP 2016</p> <p>The CEP 2016 establishes the transportation goal of 10% renewable energy in transportation by 2025, and at least 80% renewable by 2050.</p> <p>To achieve this goal the CEP 2016 established four primary strategies including, reducing transportation energy demand through smart land use, shifting transportation away from single occupancy vehicles "through the promotion of other options, including transit, walking, biking, carpooling, and telework." CEP 2016 at 9.</p> <p>L. Irreversible and Irretrievable Commitment of Resources.  Since 2009, the project cost has increased from \$20,000,000 to \$28,000,000.</p> <p>In addition to the cost of the project increasing, the proportional share of the project cost has changed. The City of Burlington is responsible for 50% of the Hazardous Waste Corrective Action Plan, plus 2% of the other 50%. The Hazardous Waste Corrective Action Plan is a new requirement since the 2009 FSEIS. Federal Highways is requiring that the City be responsible for half the costs as well as 2% of the remaining 50% of the costs.</p> <p>Commitment of storage capacity of hazardous waste is an Irreversible and Irretrievable Commitment of Resources that was not considered in 2009.</p> <p>M. Indirect and Cumulative Impacts.  The reevaluation does not mention or include a section on the indirect impacts of the Project.</p> <p>The reevaluation does not assess or evaluate the cumulative impacts on the human population of the project and the future transportation projects. There is no evaluation of the impact of the residents of the Maple/Pine/King street area as a result of the cumulative impact of the Champlain Parkway and the REP project.</p> <p>There is no cumulative impact analysis of the noise impacts of the Champlain Parkway and the REP project.</p> <p>3. Conclusion.  The Parkway has undergone significant changes and new circumstances or information have occurred relevant to environmental concerns and bearing on the proposed action or its impacts that require supplementation of, or a new, environmental impact statement that considers project alternatives and includes a public involvement process.</p> <p>Thank you for the opportunity to comment on the Champlain Prkway Project. Please contact me if you have any questions.</p> <p>Thank you for your assistance with this matter.</p> <p>Very truly yours,</p>	

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				<p>Judith L. Dillon, Esq.</p> <p>Attachment A:</p> <p style="text-align: center;"><b>FORTIETH COMMENT ATTACHMENT A</b></p> <hr/> <p><b>From:</b> Davis, Wayne &lt;Wayne.Davis@vermont.gov&gt;  <b>Sent:</b> Friday, April 27, 2018 9:21 AM  <b>To:</b> Gozalkowski, Dale; Shields, James; Norm Baldwin; Susan Motzon  <b>Cc:</b> Sikora, Kenneth (FHWA); Boomhower, Michele; Gumper, Denise; Scribner, Sue; Ramsey, Jeff  <b>Subject:</b> Burlington MEGC 5000(1) Champlain Parkway - NEPA Re-evaluation  <b>Attachments:</b> AttachmentA-3CrossSpectrumAnalysisLetter.pdf</p> <p>All;</p> <p>In regards to the issues raised by the Pine Street Coalition (PSC), please prepare to address the following in the NEPA re-evaluation process:</p> <ol style="list-style-type: none"> <li>1) Traffic modeling should be updated, including the possible future Rail Enterprise Project (REP). RSG should be brought in to perform this modeling update as they did the Champlain Parkway modeling and scoping for the REP.</li> <li>2) Identify common resources and possible accumulative impacts with the Parkway and REP.</li> <li>3) Address and confirm from 2009 FSEIS the changes in land uses and demographics. This would include identifying City zoning changes, 2010 consensus, etc. Address these changes in a general matter.</li> <li>4) Address contaminated soils including development soils and the drafting of a CAP.</li> <li>5) Confirm the section on Environmental Justice is still valid.</li> <li>6) Update Stormwater and wetlands as necessary. See PSC document Attachment C – Wetlands, Stormwater and Water Quality.</li> <li>7) Did City respond to Burlington Walk/Bike Council letters dated 12/18/2014 and 5/2/2016 in writing? If so, need copies.</li> <li>8) Review PSC Attachment A-3 Cross Spectrum Analysis Letter (attached). This document addresses noise concerns. It appears this document was not included on Facebook link, but was included in mailed hard copies.</li> </ol> <p>There maybe more issues to address which we will discuss at our to-be-scheduled meeting next week. It would be wise to invite a RSG representative to join in the traffic model discussion (does not have to stay for full meeting). Also, the person whom performed the noise analysis could call in for a short discussion on the noise issue. Please do not hesitate to contact me if you have any questions or concerns. Thank you.</p> <p>Wayne L. Davis  Project Superior  Municipal Assistance Bureau  Highway Division, VTrans  1 National Life Drive  Montpelier, VT 05633-5001  (802) 828-5609</p> <p>Please note that this communication and any response to it will be maintained as a public record and may be subject to disclosure under the Vermont Public Records Act.</p> <p style="text-align: center;">1</p> <p>Attachment B:</p>	

Date Received	Method	Name	Address	Comment	Response
				<p style="text-align: center;"><b>FORTIETH COMMENT ATTACHMENT B</b></p> <hr/> <p><b>From:</b> Sikora, Kenneth (FHWA)  <b>Sent:</b> Monday, December 17, 2018 7:26 AM  <b>To:</b> Kirby, Patrick (FHWA)  <b>Subject:</b> RE: Pine Street Coalition -- Request to Governor Scott for a New Champlain Parkway EIS Process</p> <p>Hi Patrick - I don't believe that this needs a specific response. Both Matthew and I have been communicating with this group over the last few years about their vision for the project. Many of their requests regarding bike/ped issues have been incorporated into the project during the final design phase. VTrans used to administer this project but turned the project over to Burlington around 2000 or so. I believe the City Council has rejected their request for a new EIS process and plan to go forward with the current project. That's probably why they wrote to the Governor in the first place, and I don't think he would do anything to usurp the City's decision here.</p> <p>What would need a response would be if the City and/or VTrans changed their mind and came back to us with a request to do a new EIS. In that case we would have the power of the purse strings and either ask for payback of Federal-aid funds spent on the previous design or require the City and State to fund the new EIS on their own, or both. This wouldn't be unfair, we warned the City back in 2009 that we were ready to select the Pine Street alternative shown in the FSEIS, and if they didn't want to go along with that, we would be fine with selecting the No Build alternative and ending the project with no payback of funds. They made a decision to go forward. Not only that, the permitting on this project has been very difficult with appeals ongoing. Throw in the difficulty of having to deal with the Railroad and I just can't imagine there is any desire on the part of the City to throw all that away.</p> <p>In summary, the City is administering the project not the State. I don't think there is any process where the Governor could intervene other than withholding their 3% share (this is an EGC project -- 95% Federal, 3% State, 2% Local). In addition, there is no upside to starting a new EIS other than to make this small coalition happy. Bottom line for FHWA - if the State withheld funds, or if the City wanted to reverse course, there would be substantial payback and funding issues.</p> <p>Rob  Kenneth R. Sikora, Jr.  Environmental Program Manager  FHWA - VT Division  (802)828-1573</p> <p><b>From:</b> Kirby, Patrick (FHWA) &lt;patrick.kirby@dot.gov&gt;  <b>Sent:</b> Monday, December 17, 2018 7:04 AM  <b>To:</b> Sikora, Kenneth (FHWA) &lt;Kenneth.Sikora@dot.gov&gt;  <b>Subject:</b> RE: Pine Street Coalition -- Request to Governor Scott for a New Champlain Parkway EIS Process</p> <p>Rob,</p> <p>What is our response going to be?</p> <p>Patrick Kirby  Financial Manager  DOT - FHWA Vermont Division  802-828-4568  <a href="mailto:Patrick.kirby@dot.gov">Patrick.kirby@dot.gov</a></p> <p style="text-align: center;">1</p>	

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				<p style="text-align: center;"><b>FORTIETH COMMENT ATTACHMENT B</b></p> <p><b>From:</b> Sikora, Kenneth (FHWA)  <b>Sent:</b> Friday, December 14, 2018 5:10 PM  <b>To:</b> Hake, Matthew (FHWA) &lt;matthew.hake@dot.gov&gt;; Dwyer, Lawrence (FHWA) &lt;Lawrence.Dwyer@dot.gov&gt;  <b>Cc:</b> Kirby, Patrick (FHWA) &lt;patrick.kirby@dot.gov&gt;  <b>Subject:</b> FW: Pine Street Coalition -- Request to Governor Scott for a New Champlain Parkway EIS Process</p> <p>FYI</p> <p><b>From:</b> Dunleavy, John &lt;John.Dunleavy@vermont.gov&gt;  <b>Sent:</b> Friday, December 14, 2018 4:34 PM  <b>To:</b> Sikora, Kenneth (FHWA) &lt;Kenneth.Sikora@dot.gov&gt;; Scribner, Sue &lt;Sue.Scribner@vermont.gov&gt;; Davis, Wayne &lt;Wayne.Davis@vermont.gov&gt;  <b>Subject:</b> Pine Street Coalition -- Request to Governor Scott for a New Champlain Parkway EIS Process</p> <p>FYI</p> <p>Begin forwarded message:</p> <p><b>From:</b> TONY Redington &lt;tonyvrt99@gmail.com&gt;  <b>Date:</b> December 14, 2018 at 16:10:54 EST  <b>To:</b> undisclosed-recipients;  <b>Subject:</b> Fwd: Request for A New Champlain Parkway EIS Process</p> <p>Good Day Governor Scott:</p> <p>Please find attached and in a copy now being mailed, a letter from the Pine Street Coalition seeking your review of the Champlain Parkway project in Burlington. Our letter requests taking action within your authority to begin a new Environmental Impact Statement (EIS) process.</p> <p>A Parkway re-design assures a reduction in injuries, part of a Vision Zero highway safety policy of no serious and fatal injuries now expected to be considered by our City Council. Another not so long term threat to our community, global warming, can be addressed in a re-design to sharply reduce climate change emissions. As a result the Parkway can fit into the Net Zero and Ready for 100 Percent grassroots initiatives to move Burlington to a fully carbon neutral city. The current Parkway design clearly moves our City backward from the Net Zero and Ready for 100% goals. Finally, the current Parkway design not only lacks separate and safe walk and bicycle facilities, there is a total lack of the now proven new "best practices" improving safety and service all modes, namely roundabouts and cycle track.</p> <p style="text-align: center;">2</p>	

Date Received	Method	Name	Address	Comment	Response
				<p style="text-align: center;">FORTIETH COMMENT ATTACHMENT B</p> <p>Thank you for your consideration of this request.</p> <p>Yours truly,</p> <p>Tony Redington for the Pine Street Coalition</p> <p>Stop and Re-design a Safe Champlain Parkway! - Sign Petition: <a href="https://petitions.moveon.org/sign/governor-scott-federal">https://petitions.moveon.org/sign/governor-scott-federal</a> - Donate: <a href="https://fundly.com/stop-re-design-champlain-parkway#gallery/2">https://fundly.com/stop-re-design-champlain-parkway#gallery/2</a></p> <p>Websites: <a href="http://SafeStreetsBurlington.com">SafeStreetsBurlington.com</a> <a href="https://www.facebook.com/SSBPineStreetNOW/">https://www.facebook.com/SSBPineStreetNOW/</a></p> <p><a href="http://TonyRVT.blogspot.com">TonyRVT.blogspot.com</a> @TonyRVT60</p> <p>Stop and Re-design a Safe Champlain Parkway! - Sign Petition: <a href="https://petitions.moveon.org/sign/governor-scott-federal">https://petitions.moveon.org/sign/governor-scott-federal</a> - Donate: <a href="https://fundly.com/stop-re-design-champlain-parkway#gallery/2">https://fundly.com/stop-re-design-champlain-parkway#gallery/2</a></p> <p>Websites: <a href="http://SafeStreetsBurlington.com">SafeStreetsBurlington.com</a> <a href="https://www.facebook.com/SSBPineStreetNOW/">https://www.facebook.com/SSBPineStreetNOW/</a></p> <p><a href="http://TonyRVT.blogspot.com">TonyRVT.blogspot.com</a> @TonyRVT60</p>	
10/10	Letter	Carolyn Bates	20 Caroline St	<p>Mr Kenneth R Sikora, Jr Environmental Program Manager Federal Highway Administration 95 State ST Montpelier, VT 05602 And Mr Wayne L. Davis Project Supervisor Vermont Agency of Transportation One National Life Drive Montpelier, VT 05633</p> <p>Oct 10, 2019</p> <p>Dear Mr. Kenneth R Sikora, Jr and Mr. Wayne L. Davis</p> <p>My name is Carolyn L. Bates and I use to live and work directly in the King and Maple St. neighborhood. Now I live and work: (my business, Carolyn L. Bates Photography) on Caroline Street, just around the corner.</p>	<p>This LS DSEIS was prepared to assess environmental justice concerns related to the Project. The LS DSEIS analysis concludes there are no low-income communities in the study area based on HHS guidelines and a review of Census data. The LS DSEIS identified a minority population in the Maple and King Street neighborhood and concludes the Project will not result in a disproportionately high and adverse effect on this environmental justice community.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington</p>

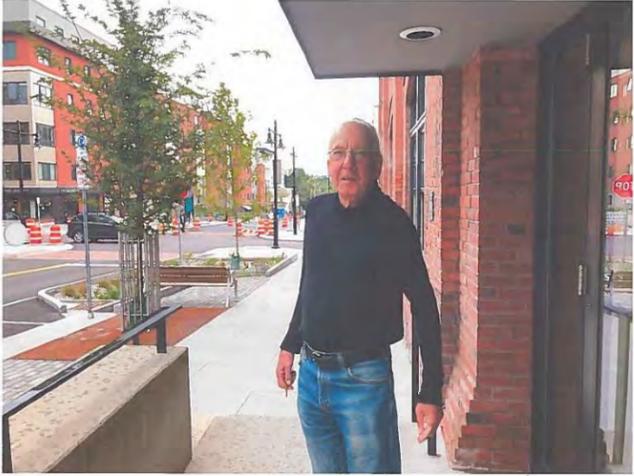
Date Received	Method	Name	Address	Comment	Response
				<p>I have continued to work with clients in the King and Maple St Neighborhood, and spend pleasurable time at Perkins Pier. I have always been a low income, woman owned business. I am now a senior, too.</p> <p>I am writing you to share my great distress with the present design of the Champlain Parkway Project that is proposed for our neighborhoods and with an urgent need to move this project along. Now this project must undergo an environmental justice review. This means the project planners must show that the project will not have a disproportionate impact on low income and minority neighborhoods like mine.</p> <p>I think it does have a horrifically huge discrepancy and impact. This project must be stopped NOW, and never go forward. Look at your own projected chart on the volume of traffic in the multi page handout you gave to us. It is on Pg 27. <b>Wealthy neighborhoods have a reduction of 72% and 56% in traffic. Lakeside, with some low-income people, has an increase in 9%</b></p> <p><b>Our neighborhood of King and Maple, has 37% increase at Maple St and Pine and another 22% on King and Pine. It is the second poorest neighborhood in Burlington, with 200 section 8 people, and at least 21 housing projects. It also has a huge population of non-English speaking African Americans.</b></p> <p>DPW of Burlington held one, poorly announced meeting, where we could make comments but not ask questions about the large confusing displays of the parkway design. And then you are not allowing other meetings though many of us asked for one. It was held outside of the neighborhood at dinner time. One two families from the African American group were able to come. You are allowing less than two weeks to reach out to those people who would have liked to come to a neighborhood meeting, and tell them what we can and get them to make comments. This is the first time since the early 2006-2010 we have been able to comment.</p> <p><b>As the enclosed chart on page 27 shows, the King (22%) and Maple St (37%) neighborhood will see way over a one third increase in traffic while other neighborhoods will see their traffic drop by more than half (ie 72% and 56%). To me, this clearly shows the incredibly huge violation of the principles of environmental justice.</b></p> <p><b>This increased traffic will cause an enormous increase in heavy pollution and noise (people today can't open their windows in summer because of the existing pollution nor enjoy sitting outside and playing with their children). Today traveling up and down Pine Street is impossible much of the time. Buses are stuck in the same traffic as cars. The safety and health is already eroding. And YOU want to build a highway exit here? And make it totally impossible for anyone to live here safely. There are HUGE apartments here, too.</b></p> <p>My summary, very similar to others, so we stay within the boundaries of this review: With regards to the environmental justice review by the Federal Justice Department of the Champlain Parkway as it is designed today. <b>I believe that it is totally unfair to decrease the traffic in other neighborhoods while greatly increasing it in ours (ie King and Maple St Neighborhood) with this project. We do not need more traffic. The impact will be intolerable. We already are impacted too much with the traffic we have. We are low income, section 8, seniors, disabled, minority people generally living in small spaces with lots of other people. We need our outside air CLEAN, noise levels REDUCIED, and travel IMPROVED and SAFER. We need A SAFE separate bike and pedestrian pathway so we can travel easily in our wheelchairs to buy groceries, bike quickly to work, and visit friends. We want to improve our lives, and health. And the present parkway as designed will only destroy what little we have left now. The injustice is beyond unfair. The impact overwhelming for the King and Maple St Neighborhood.</b></p> <p>I am aghast that you all have needed the Pine St Coalition to challenge you on the fairness of this, in order to get you to STOP and hopefully LISTEN to us and STOP THE PARKWAY from being built as designed.</p>	<p>CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>Air analysis completed for the project shows that it is in compliance with the National Ambient Air Quality Standards (NAAQS) and Vermont's Air Pollution Control Division (APCD) guidelines. There are no impacts anticipated, nor mitigation required.</p> <p>Regarding noise, traffic would have to double before there is a perceived change in noise. There are noise impacts anticipated at receptor locations along Pine Street. However, due to spatial constraints, noise mitigation measures are not feasible. Other receptor locations do not exceed the Noise Abatement Criteria (NAC) and do not require mitigation.</p> <p>In addition to the September 26, 2019 meeting, an additional open house was in fact held at the King Street Center on October 7, 2019. As part of the current NEPA process, additional outreach and engagement opportunities will be available to the Maple and King Street neighborhood. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p>

Date Received	Method	Name	Address	Comment	Response
				<p><b>It is so blatantly unfair and unjust to put this HUGE UNJUST IMPACT into my friends and clients and all the new non-English speaking families lives and everyone else's in this neighborhood. Especially to all of the CHILDREN.</b></p> <p><b>What we really need is a road far safer than you have designed, with roundabouts, reduction in noise, cleaner, safer, faster, easier with very safe and separate walk and bike paths from the southern end of Burlington into downtown.</b> Having Electric small buses that run every 15 minutes so we can all leave our cars behind would be wonderful. Please do it this way instead. This way we can regain the 6 acres of land we gave up a long time ago and rebuild the houses and businesses we had before, and make the Englesby Brook clean, and into a park to enjoy by all instead of sticking it into a 200 ft enclosure, and move Burlington into the Future instead of sending it back to the 1960's.</p> <p>Thank you. Sincerely</p> <p>Carolyn Bates <a href="mailto:Cbatesbt@gmail.com">Cbatesbt@gmail.com</a> 802-238-4213 20 Caroline ST Burlington, VT 05401</p> <p>Enclosed: several charts, illustrations, photographs, text to use to show what the most present parkway design is and what it will d if built. All are based on google maps, and information we were given by the parkway. Photographs were all taken within the King Malpe St. Neighborhood in the last 10 days. They should all be included as part of my comments cb</p>	

Date Received	Method	Name	Address	Comment	Response
				 <p><i>African Americans going to school</i></p>	

Date Received	Method	Name	Address	Comment	Response
				 <p><i>Wheel chair people hanging out -</i></p>	

Date Received	Method	Name	Address	Comment	Response
				 <p><i>African Americans</i></p>	

Date Received	Method	Name	Address	Comment	Response
				 <p><i>senior citizen Jack Haggitt</i></p>	

Date Received	Method	Name	Address	Comment	Response
				 <p><i>pre school</i></p>	

Date Received	Method	Name	Address	Comment	Response
				 <p><i>Klecker Towers — one of many multi-family plus care for disabled people</i></p>  <p><i>Kids - African American going to bus to go to school</i></p>	

Date Received	Method	Name	Address	Comment	Response
				 <p><i>skateboarder</i></p>	

Date Received	Method	Name	Address	Comment	Response
				 <p><i>Construction is everywhere in neighbor hood — for at least year.</i></p>	

Date Received	Method	Name	Address	Comment	Response
				 <p><i>Construction</i></p>	

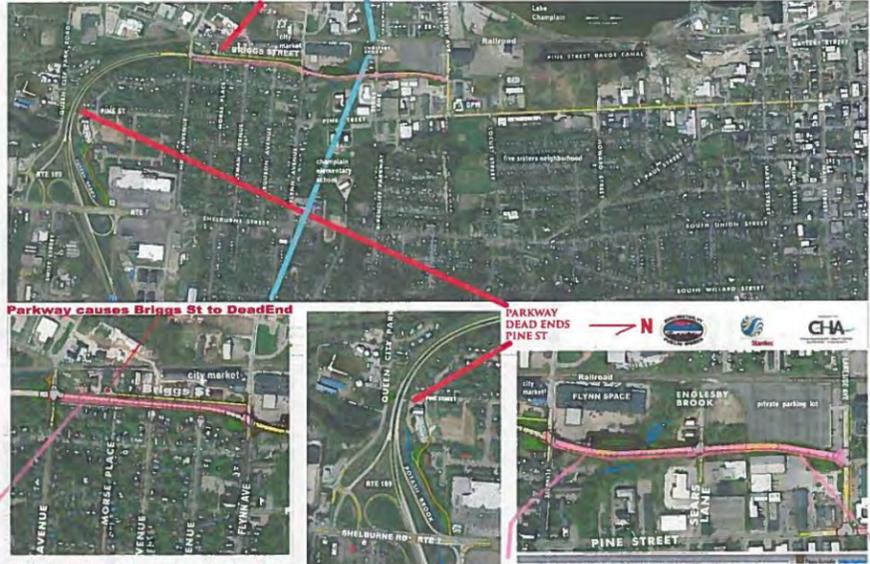
Date Received	Method	Name	Address	Comment	Response
				<p>○</p>  <p><i>Construction</i></p> <p>○</p>  <p><i>MAINT. ROAD</i></p>	

Date Received	Method	Name	Address	Comment	Response
				<p style="text-align: center;"><b>King St and Maple St Neighborhoods, section 8 housing</b></p>  <p style="text-align: center;"><b>Champlain Parkway present design:</b> Please say <b>NO</b> to this design and ask for a new design and EIS</p>  <ol style="list-style-type: none"> <li>1. The Champlain Parkway will increase traffic 29- 37% in the King and Maple St. neighborhood.</li> <li>2. The CP will slow down traffic and add pollution and noise by using stoplights instead of safer, cheaper, faster, greener, state of the art Roundabouts. As designed CP will have a serious negative impact on residents who live near or travel on Pine Street.</li> <li>3. Shared use paths and "sharrow" segments do not create a safe environment for either pedestrians, or cyclists. We need separate, safe paths for each one.</li> <li>4. The dead end proposed for Pine Street at Queen City Park Road will cause undue disadvantage to the low-income neighborhood of South Meadow as well as the South Burlington neighborhood of Queen City Park. Please use a Roundabout here.</li> <li>5. The current design harms the Englesby Brook watershed by increasing the flow through a large culvert and unnecessarily paving over more acreage, thus increasing run-off into the already-impaired waterway.</li> <li>6. Please request further hearings to be held at locations throughout the proposed route of the Parkway. The impact of the current design is considerable on many low-income residents the length of the route.</li> <li>7. The present design unnecessarily builds on 6 acres of land that we could use to build much needed housing, businesses and parks.</li> </ol> <p style="text-align: center;"><b>Please say NO to this design and ask for a new design and EIS</b> Comment Period Ends October 10, 2019 Comments may be emailed to: <a href="mailto:Burl-Comments@Vermont.gov">Burl-Comments@Vermont.gov</a></p>	

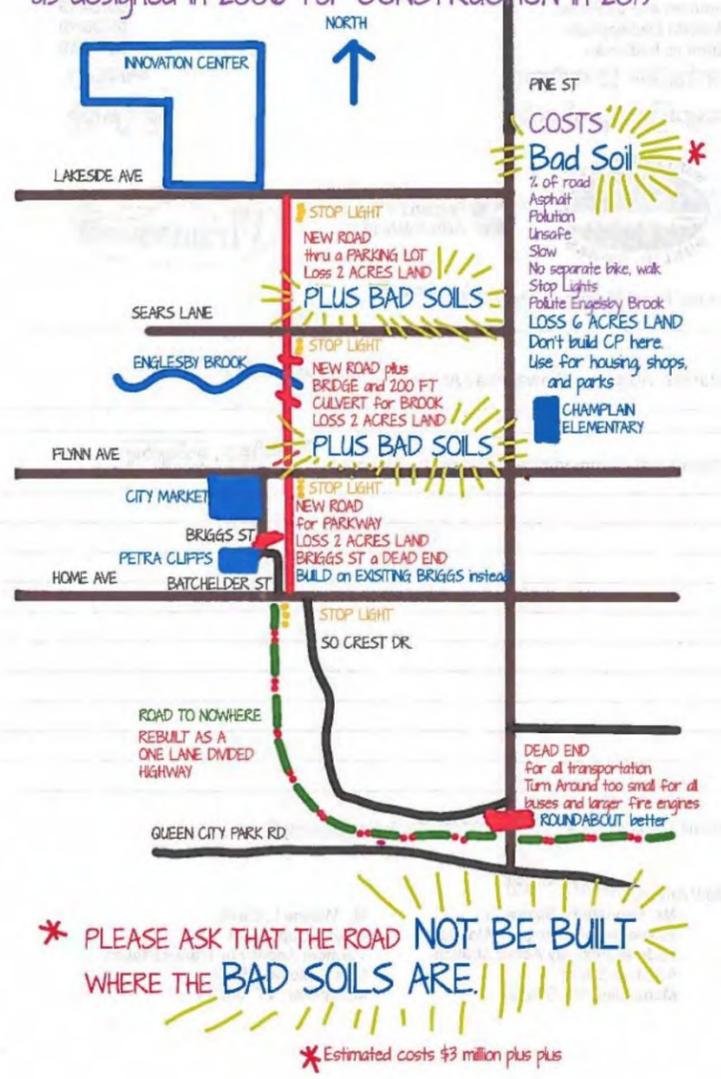
Date Received	Method	Name	Address	Comment	Response
				<p><b>Champlain Parkway:** King and Maple St Neighborhood</b></p> <p>In this neighborhood, the CP will cause a <b>29-37% INCREASE in TRAFFIC, POLLUTION and NOISE.</b></p> <p><b>STOPLIGHTS</b> will cause a <b>30 SEC DELAY</b> in traffic flow at each light. Stoplights are less safe, slower, more polluting and much more costly than <b>ROUNDBABOUTS: 8 SEC DELAY.</b> Ask for Roundabouts and a new EIS</p> <p><b>SHARED Pedestrian and Bike Paths ARE NOT SAFE.</b> Ask for <b>SEPARATE</b> Paths for each.</p> <div> <p><b>MAIN ST</b> SHARED ped bike path Existing Stoplight</p> <p><b>KING ST</b> Northbound: No left turn SHARED ped bike path New Stoplight</p> <p><b>MAPLE ST</b> Northbound: No left turn SHARED ped bike path New Stoplight</p> <p>PINE ST ST PAUL</p> </div> <p><b>Businesses and Housing affected</b> Handy's lunch, Kerry's Kwik Stop, Decker Towers, Bobbin Mill, Wharf Lane, CVOEO,7Days, many small businesses on Pine St, St Paul St, Maple St, So Champlain St, King St, Battery St, King Street Youth Center, Dive Shop, Access to Perkins Pier and bike path, LCT Ferry, Maglieno Cafe, Local Motion for bike rental, Advanced Music, Shanty on the Shore for food, Lake Monsters Office, Advanced Music, Curtis Lumber. All private homes and other multi family-housing (21 total) and 200 section 8 families, on these streets.</p> <p><b>PLEASE SEND YOUR COMMENTS ON PARKWAY DESIGN by OCT 10 to: email: <a href="mailto:Burl-Comments@Vermont.gov">Burl-Comments@Vermont.gov</a></b></p> <p><small>** This map is a screen shot off the entire map of the parkway at Champlain Parkway.org</small></p>	

Date Received	Method	Name	Address	Comment	Response																								
				<p style="text-align: center;"><b>Vehicle Traffic Volume</b></p> <p style="text-align: center;">Average Daily Traffic Volume Pine Street</p> <table border="1"> <caption>Average Daily Traffic Volume on Pine Street</caption> <thead> <tr> <th>Segment</th> <th>Without Champlain Parkway</th> <th>With Champlain Parkway</th> <th>% Change</th> </tr> </thead> <tbody> <tr> <td>Home to Fynn</td> <td>10,300</td> <td>2,800</td> <td>72% decrease</td> </tr> <tr> <td>Fynn to Lakeside</td> <td>17,500</td> <td>7,600</td> <td>56% decrease</td> </tr> <tr> <td>Lakeside to Maple</td> <td>14,900</td> <td>16,300</td> <td>9% increase</td> </tr> <tr> <td>Maple to King</td> <td>9,200</td> <td>12,600</td> <td>37% increase</td> </tr> <tr> <td>King to Main</td> <td>6,900</td> <td>8,400</td> <td>22% increase</td> </tr> </tbody> </table> <p>Notes added by C Bates.</p> <p>27</p> <p>Federal Highway Administration   VT Trans</p>	Segment	Without Champlain Parkway	With Champlain Parkway	% Change	Home to Fynn	10,300	2,800	72% decrease	Fynn to Lakeside	17,500	7,600	56% decrease	Lakeside to Maple	14,900	16,300	9% increase	Maple to King	9,200	12,600	37% increase	King to Main	6,900	8,400	22% increase	
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				<p style="text-align: center;"><b>BIKE and PEDESTRAIN PATHS ALONG PINE ST and PARKWAY</b></p> <p style="text-align: center;">Center Line</p> <p style="text-align: center;">©PineStreet Coalition</p>																									



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				<p style="text-align: center;"><b>CHAMPLAIN PARKWAY AS DESIGNED with notes by Pine St Coalition</b></p> <p><b>6 ACRES OF LAND UNNECESSARILY LOST WITH THIS DESIGN</b>  <b>parkway causes BRIGGS ST. TO DEAD END</b>  <b>Englesby Brook goes straight into Lake Champlain new road cause a LAND LOST of 2 acres.</b></p>  <p><b>Parkway causes Briggs St to DeadEnd</b>  <b>PARKWAY DEAD ENDS PINE ST</b>  <b>PARKWAY PARALLELS BRIGGS AND BATCHELDER 2 ACRES</b>  <b>2 Acres of Land lost on new road thru Englesby</b>  <b>PARKWAY FROM FLYNN, THROUGH ENGLSBY TO LAKESIDE 4 ACRES.</b></p> <p><b>2 Acres of LAND LOST by building new road. SOLUTION Use Briggs ST instead of new road</b>  <b>2 acres of LAND LOST on new road thru parking lot. SOLUTION do not build unnecessary roads. Clean up Englesby and make it a park.</b></p> <p><b>FEDERAL LAW demands that LOW AND MODERATE INCOME NEIGHBORHOODS NOT BE IMPACTED MORE THAN NECESSARY. AND USE THE SAFEST, BEST WAYS TO DO THIS. Ie ROUNDABOUTS AND SEPARATE BIKE AND PEDESTRIAN PATHS.</b>  <b>6 ADDITIONAL STOP LIGHTS WILL BE PUT ON PINE ST</b>  <b>THIS will cause EVEN SLOWER TRAFFIC, MORE POLLUTION, LESS SAFE, MORE EXPENSIVE THAN ROUNDABOUTS WILL</b>  <b>FEDERAL LAW DEMANDS NEW ROADWAYS BE SAFER, CLEANER, FASTER THAN THIS DESIGN.</b></p>	

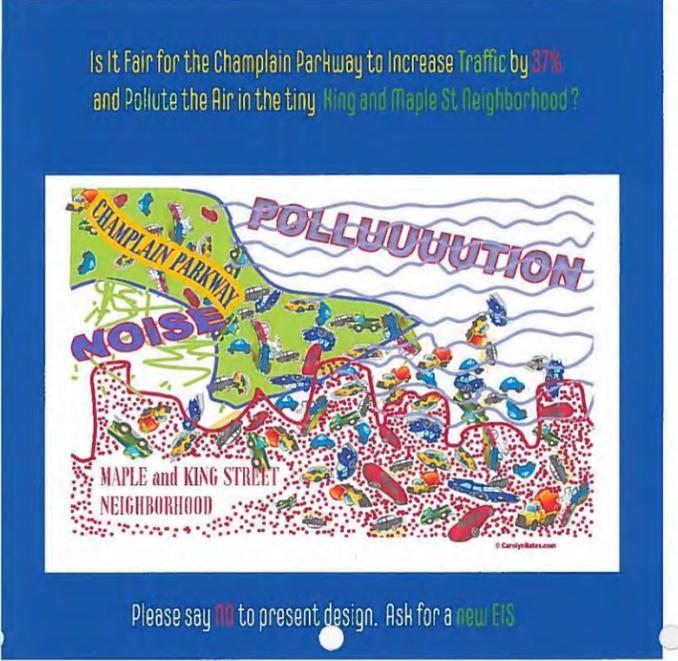
CHAMPLAIN PARKWAY from 189 to Lakeside Ave  
as designed in 2006 for CONSTRUCTION in 2019

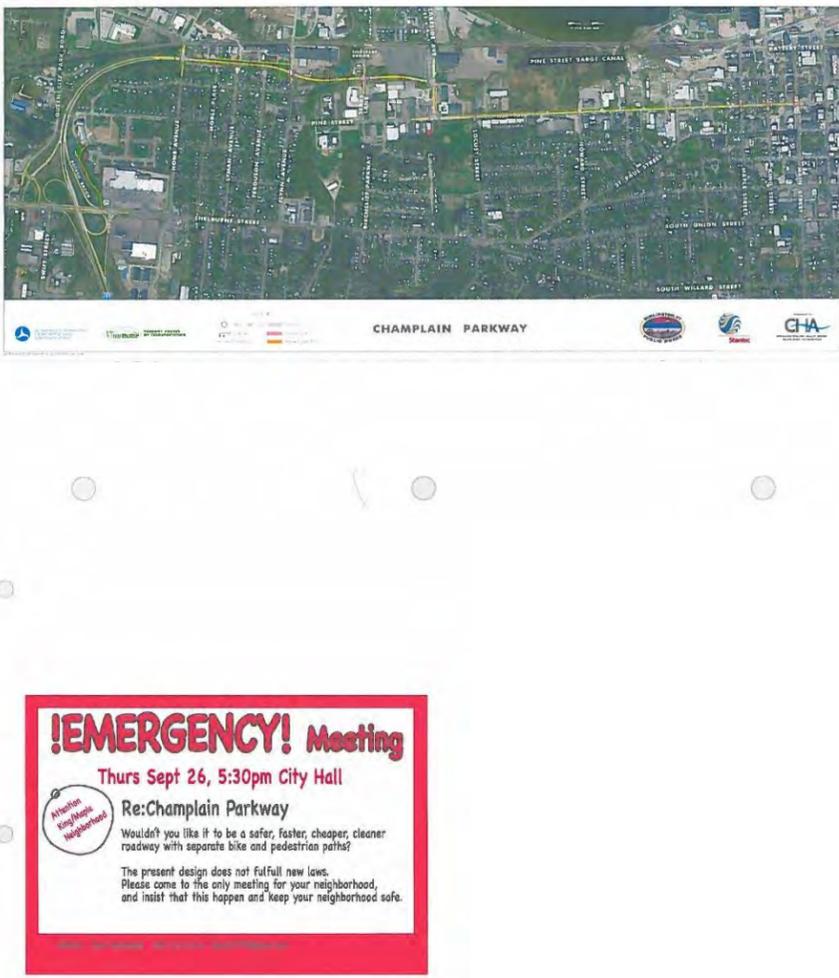


Date Received	Method	Name	Address	Comment	Response
				 <p>○ FLYNN AVE COOP section ○ housing</p>  <p>1. Flynn Ave Coop 266 Flynn Ave 2. North Street Shriener 55 Oakledge Dr 3. South Meadow 1 Raymond Pl</p> <p>Business in this area Chemplain Elementary School, Howard Carter, City Market Flynn Ave, Petra Cliffs, Flynn Dog, Flynn Ave several small biz, breweries, art galleries, antique shops, appliance shops, Small Dog, Burton Snowboards, Rhino Foods, Edlund Can, RETN, VCAM, yoga studio, cafe,</p> <p>Housing: Southwind, Lake Forest</p>	

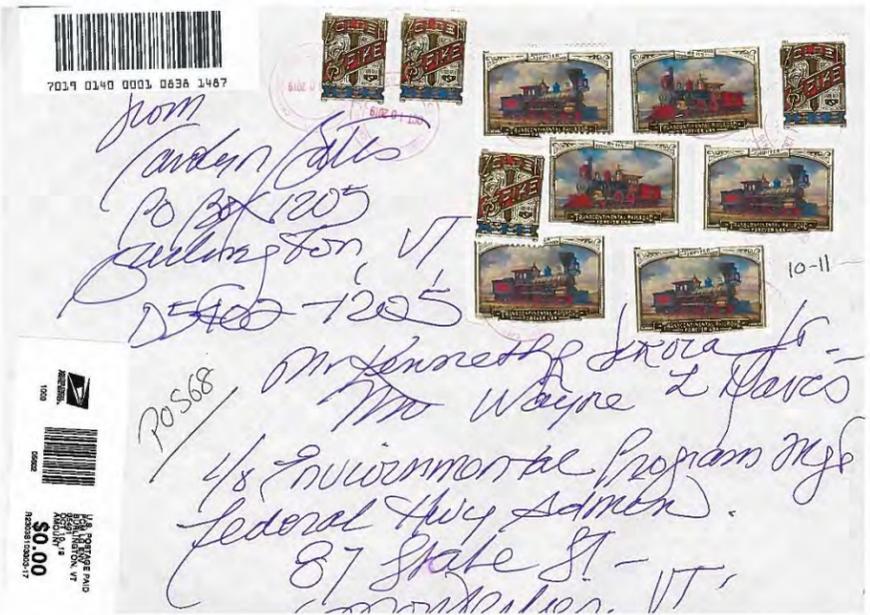
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Date Received	Method	Name	Address	Comment	Response
				<div> <p>2019 King/Maple/Pine St      2022 King/Maple/Pine St      20 King/Maple/Pine St      2022 King/Maple/Pine St</p> <p>THE CHAMPLAIN PARKWAY WHEN BUILT will have a 37% increase in: POLLUTION NOISE TRAFFIC</p> <p>And BIKES, WALKERS, SCOOTERS WHEELCHAIRS will all travel on the same 10 ft path going both ways at the same time.</p> <p><b>STOP LIGHT ***</b></p> <ol style="list-style-type: none"> <li>1. Slower 30 sec to go thru</li> <li>2. Less safe</li> <li>3. 2 times more expensive</li> <li>4. Heavy pollution</li> <li>5. \$5000 minimum cost per year</li> <li>6. NO LEFT TURNS Northbound FROM PINE TO KING OR MAPLE</li> <li>7. Not bike friendly</li> <li>8. Not pedestrian friendly</li> </ol> <p><b>ROUNDABOUT</b></p> <ol style="list-style-type: none"> <li>1. Faster 8 sec to go around</li> <li>2. More Safe</li> <li>3. Cheaper 50% less money</li> <li>4. Greener ie less pollution</li> <li>5. Maintenance Nominal</li> <li>6. Left hand turns on King and Maple.</li> <li>7. Bike Friendly</li> <li>8. Pedestrian Friendly</li> </ol> <p>*** Six additional traffic signals: Pine/King, Pine/Maple, Parkway/Lakeside, Parkway/Sears Lane, Parkway/Flynn and Parkway/Home.</p> </div>	

Date Received	Method	Name	Address	Comment	Response
				 <p><b>New Federal Government Laws we must follow:</b></p> <p>We must minimize the impact on low and moderate income neighborhoods, ie King and Maple Streets.</p> <p>faster, safer, cleaner, cheaper roadway, with safe bike paths and safe walking paths.</p> <p>All Federal government money spent on highways must be spent to reduce serious and fatal injuries, ie use roundabouts, not stop lights at intersections.</p>	

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				 <p><b>!EMERGENCY! Meeting</b>  <b>Thurs Sept 26, 5:30pm City Hall</b>  <b>Re: Champlain Parkway</b>  Wouldn't you like it to be a safer, faster, cheaper, cleaner roadway with separate bike and pedestrian paths?  The present design does not fulfill new laws.  Please come to the only meeting for your neighborhood, and insist that this happen and keep your neighborhood safe.</p>	



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				 <p>Handwritten text on the postcard includes: "from Candan Wells", "PO Box 1205", "Burlington VT", "VT 05405-1205", "Postage Mr. Kenneth R. Sikora Jr.", "The Wayne 2 Davos", "US Environmental Program Mgt", "Federal Hwy Admin.", "87 State St - VT", "Montpelier, VT".</p>	
10/8	Email	Thomas Hudspeth	139 Dunder Rd	<p>Mr. Kenneth R. Sikora, Jr.  Environmental Program Manager  Federal Highway Administration  87 State Street  Montpelier, VT 05602</p> <p>Dear Mr. Sikora:  The current proposal for the Champlain Parkway has numerous shortcomings. Conditions have changed appreciably since the Parkway was first proposed and the work for the EIS was conducted.  <b>I am concerned about the impact of the Parkway as proposed on the low-moderate income King St. x Maple St. neighborhood</b> as well as on the businesses along the Pine St. corridor.  <b>I am convinced that a safer, more energy efficient, and less expensive parkway, with safe bike paths and safe pedestrian routes</b> (I walk my granddaughter between our home off Austin Dr. and her--and my daughter and son-in-law's--home in the Five Sisters neighborhood quite a lot). <b>Also, I believe roundabouts would be much better than stop lights at 6 intersections.</b> In addition, it is important to continue to connect Pine St. with Queen City Park Dr. I have other suggestions as well that I look forward to sharing when the redesign process commences.  I was involved considerably with planning related to the Burlington waterfront and the Burlington Bike Path (now called Greenway) in the late 1970s and throughout the 1980s and early 90s. I would be pleased to offer what I consider much more environmentally- and people-friendly alternatives to the Champlain Parkway as proposed at this time in my life, and—as a strong advocate of citizen participation/public involvement/stakeholder engagement—to work with others in our community on a better design that is appropriate for the 21st Century.  Thank you.  Sincerely,  Tom Hudspeth</p> <p>Thomas R. Hudspeth  Professor Emeritus of Environmental Studies and Natural Resources  Affiliate, Gund Institute for Environment  University of Vermont  Environmental Program and Rubenstein School of Environment and Natural Resources  Co-coordinator, Greater Burlington Sustainability Education Network, a Regional Center of Expertise  on Education for Sustainable Development recognized by U.N. University</p>	<p>This LS DSEIS was prepared to assess environmental justice concerns related to the Project. The LS DSEIS analysis concludes there are no low-income communities in the study area based on HHS guidelines and a review of Census data. The LS DSEIS identified a minority population in the Maple and King Street neighborhood and concludes the Project will not result in a disproportionately high and adverse effect on this environmental justice community.</p> <p>While the neighborhood does not meet the US Department of Health and Human Services (HHS) low-income thresholds, a number of design features have been included in the Project to mitigate the impact of traffic on the community. These features include improved pedestrian and bicycle facilities, new, consistent, ADA compliant sidewalks and sidewalk access ramps, bicycle markings, curb extensions, raised intersections, rapid flashing beacons, and exclusive pedestrian phases.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>In consideration of the application of roundabouts for the Pine Street/Maple Street and Pine Street/King Street intersections, it was identified that a single-lane roundabout is not feasible to be constructed at either of these two intersections because of the physical constraints and existing built environment. Although mini roundabouts might be able to fit physically; they are not recommended for the intersections of Pine Street/Maple Street or Pine Street/King Street because of considerations related to the arterial function of Pine Street, truck/bus accommodation, traffic performance, vehicle safety and pedestrian/bicyclist safety.</p>

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				139 Dunder Road, Burlington, VT 05401 802-578-7792 FAX: 802-656-8015 <a href="http://www.uvm.edu/rsenr/profiles/thomas_hudspeth">http://www.uvm.edu/rsenr/profiles/thomas_hudspeth</a> <a href="https://www.uvm.edu/gbsen/?Page=default.html">https://www.uvm.edu/gbsen/?Page=default.html</a> Thomas.Hudspeth@uvm.edu	
10/7	Email	Deena Frankel	1061 Pine St	<p>I understand that DPW is currently seeking/accepting comments regarding the Champlain Parkway. I live on the southern most block of Pine Street and I want to state my strong support for the Parkway project. This infrastructure update is desperately needed and long overdue. We in the neighborhood need some relief from truck traffic. Pine Street turns into an obstacle course of potholes in the winter from handling more heavy traffic than it should. While the design may not be perfect—after all, what is?—we should not let the perfect be the enemy of the good. We should move forward NOW!</p> <p>Thank you.</p> <p>deena frankel   1061 Pine Street, BTV   802.488.4489</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>

**NO ADDRESS/NEIGHBORHOOD PROVIDED**

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10/9	Email	Phillip Foy		<p>Hi,</p> <p>Seems odd that we, as a city, declare a net-zero goal to try and curb our contributions to climate change, then simultaneously support the development of single occupancy transportation (inevitable result of more roads).</p> <p>I'm a neighbor of the proposed parkway and would rather see a rail system, bus only, or other high occupancy transportation project take the place of this debacle. So, not NIMBY for this project overall, just NIMBY for an antiquated idea.</p> <p>50 years and still not built? Woof</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/9	Email	Catherine Suiter		<p>I think the CP has considerable merit, but I certainly encourage a review of the plans with an eye to 2020 needs and solutions rather than the old 1980's view.</p> <p>Thanks Catherine Suiter</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/6	Email	Tony Redington		<p>Good Day Charles:</p> <p>I agree with Cindy that it would be great if you submit this as a resident of the South End and member of Pine Street. You speak to the quicksand under the FSEIS, the "purpose and need" plus other key themes. Am environmentally justice challenged right now--a problem that particularly affects old white guys! Working right now to get as many leader/local comments submitted as possible until the window closes Thursday at 12 midnight.</p> <p>Tony</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/7	Email	Nancy Hellen		<p>Mr. Sikora and Davis,</p> <p>There is a chance for Burlington to make a decision that is forward thinking and shows action toward reduction in carbon footprint.</p> <p>The Champlain parkway was conceived and started decades ago. The current understanding of transportation patterns and the impact it has on climate has greatly provide</p> <p><b>The traffic pattern will elevate congestion in the neighborhoods to the south but increase the traffic in the King street and Maple street neighborhoods. These neighborhoods are of lower economic population, housing is more dense and is heavily used by pedestrians and bicyclists.</b></p> <p>The forward action Burlington needs to take is to provide a park and ride at the end of Pine Street with a connecting bus service to Burlington, hospital and UVM. Such a plan would; decrease traffic along Pine Street and Shelburne Road, decrease commuter parking in downtown, and decrease Burlington's carbon footprint.</p> <p>Actions to support this park and ride plan could include; incentives from businesses for using the park and ride, offering smaller buses often in rush hour times, and bike racks with roofs.</p> <p>The land and infrastructure, including ramps on and off I89 are already laid out.</p> <p>I urge Burlington to make a decision that is using current understanding of our impact on the environment.</p> <p>Thank you, Nancy Hellen</p>	<p>Environmental Justice (EJ) was evaluated as part of previous NEPA submissions, including the 2009 FSEIS. FSEIS and NEPA documentation was developed in accordance with FHWA Order 664023 and the Guidance on Environmental Justice and NEPA. EJ was considered at the time of these submissions per the guidance available at the time and is being re-evaluated today consistent with the current EJ guidance.</p> <p>EJ review protects low-income, minority, and/or tribal populations from disproportionately high and adverse human health or environmental impacts.</p> <p>Environmental Justice (EJ) populations are those that are minority, low-income, or tribal. A minority population may be present if the minority population in the area is "meaningfully greater" than the minority population percentage in the general population. Low-income communities are defined by the US Department of Health and Human Services (HHS) poverty guidelines.</p> <p>The EJ analysis for this Project identified a minority community in the Maple/King neighborhood. Based on the HHS poverty thresholds, there are no low-income communities within the Project area.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p>

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					<p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>New, consistent sidewalks compliant with ADA-requirements will be provided throughout the Project.</p> <p>Bike lanes will be provided where they were determined to be feasible based on state and federal design standards and guidance. Separated bike infrastructure wasn't provided because there isn't enough width available in this built-up city corridor.</p>
10/7	Email	Wendy Stiles		<p>Bad idea,    None of us in this neighborhood want it coming into our yards, gardens, quiet places of refuge here in the south end of Burlington.  Find another way,  God knows we deserve the quality of life we're already paying for and working towards.</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/7	Email	Jamie Gay		<p>We need more street infrastructure to relieve the increased load from new apartment buildings in already jam-packed space. I am in favor of the 189 extension going through.</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/10	Email	Caroline Aronson		<p>Hi all,  I believe that it is unfair to decrease the traffic in other neighborhoods while greatly increasing it in ours with this project. We do not need more traffic. We already have too much.  Thanks  Sincerely,  Caroline Aronson</p> <p>Sent from my iPhone</p>	<p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce</p>

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					congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.
10/9	Email	Wendy Bratt		<p>Please slow the parkway plan down.....</p> <p>..... just enough to improve upon it!</p> <p>Hello,</p> <p>I am a bicyclist and want access to downtown on the Champlain Parkway! Please don't just make it a slab of concrete bisecting every neighborhood and reducing access out of Burlington in other ways such as Pine Street and the Kmart plaza. I use these a lot and am a strong believer in roundabouts. We just drove 3000 miles through the Canadian Maritimes and I was awed by the perfection of these inventions. Slow you down, keep you alert, and there is no stop and start confusion of traffic. NO NEED to dead end Pine Street.</p> <p>Looking forward to change but the right change not the fast change.</p> <p>Wendy Bratt</p>	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/10	Email	Stephanie Gomory		<p>To Whom It May Concern:</p> <p><b>It's disheartening that this project will route even more traffic across Pine Street, directly through the diverse and economically disadvantaged community in the Maple/King neighborhood. Were communities of color given sufficient opportunity to be a part of the planning process? I assume not.</b></p> <p>It's disheartening, too, that instead of putting money towards public transit, you're choosing to "alleviate" the problem of city traffic by building additional arteries into the city, which will increase traffic and emissions.</p> <p><b>I urge you to reconsider this project and its effects on the impacted community at Maple/King, not to mention the health of our environment.</b> With projects like these, we have the option to better equip our cities for a changing climate. <b>This project fails to do that, instead making it even easier for cars to pollute Burlington's neighborhoods: especially those of color.</b></p> <p>What a disappointment, all around.</p> <p>Stephanie Gomory</p> <p>-- 802-505-5587</p>	<p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p> <p>Environmental Justice (EJ) was evaluated as part of previous NEPA submissions, including the 2009 FSEIS. FSEIS and NEPA documentation was developed in</p>

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					<p>accordance with FHWA Order 664023 and the Guidance on Environmental Justice and NEPA. EJ was considered at the time of these submissions per the guidance available at the time and is being re-evaluated today consistent with the current EJ guidance.</p> <p>EJ review protects low-income, minority, and/or tribal populations from disproportionately high and adverse human health or environmental impacts.</p> <p>This LS DSEIS was prepared to assess environmental justice concerns related to the Project. The LS DSEIS analysis concludes there are no low-income communities in the study area based on HHS guidelines and a review of Census data. The LS DSEIS identified a minority population in the Maple and King Street neighborhood and concludes the Project will not result in a disproportionately high and adverse effect on this environmental justice community.</p> <p>In addition to the September 26, 2019 outreach meeting, an additional open house was in fact held at the King Street Center on October 7, 2019. As part of the current NEPA process, additional outreach and engagement opportunities will be available to the Maple and King Street neighborhood. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p>
10/8	Email	Kate Margulius		<p>Hello,</p> <p>I was at the 9/26 Champlain Parkway community meeting and I'd like to submit this feedback during the community feedback window. Its unclear to me what entity this email address is going to. Please let me know who has received this feedback and what will be done with it. Thanks, Kate Margulius</p> <ul style="list-style-type: none"> <li>• I don't like that Pine St will be closed to/from Queen City Park Rd. This prevents those who live on the south side of the parkway from accessing Pine St easily. It will also increase traffic on Industrial Drive which doesn't have a safe bike / pedestrian lane.</li> <li>• Bike / pedestrian access should be improved on Industrial Dr. as part of the Parkway plan.</li> <li>• The interaction of Queen City Park Rd. and Shelburne Rd was already a bottleneck during peak traffic times. It got much worse as access south onto Shelburne Rd was restricted due to Hannaford construction at the old Kmart site (looks like traffic will be restricted here even after construction is complete). With the parkway, we will now dump all outbound traffic from the Parkway heading south to Shelburne Rd into that same intersection. Has anyone done an impact study on what that will do?</li> <li>• As a resident in the quiet neighborhoods around the Parkway I'm concerned about increased noise &amp; light pollution. Specifically, as highway traffic slows to become street traffic from the Baird Center to Home Ave</li> </ul>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/8	Email	Mark Hughes		<p>Mr. Kenneth Sikora, Jr. Environmental Program Manager , Mr. Wayne Davis Project Supervisor Vermont Agency of Transportation and all concerned,</p> <p>This memo is in directed to you out of serious concern surrounding the community engagement process and and the fatally flawed environmental justice review of Champlain Parkway Project. We find it difficult to believe that this \$47M highway construction project is moving towards implementation, given this new plan to route traffic across Pine Street, directly through the Maple/King Street neighborhood, the most racially diverse community in Burlington, save the Old North End! We feel that communities of color should have been afforded sufficient opportunity to be a part of discussions on this matter.</p> <p>Further, it is unacceptable that draconian environmental justice processes are being used as a part of the Supplemental Environmental Impact Statement on a project with such far-reaching implications. It is our hope</p>	<p>Environmental Justice (EJ) was evaluated as part of previous NEPA submissions, including the 2009 FSEIS. FSEIS and NEPA documentation was developed in accordance with FHWA Order 664023 and the Guidance on Environmental Justice and NEPA. EJ was considered at the time of these submissions per the guidance available at the time and is being re-evaluated today consistent with the current EJ guidance.</p> <p>EJ review protects low-income, minority, and/or tribal populations from disproportionately high and adverse human health or environmental impacts.</p>

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				<p>that this project is brought an immediate and indefinite halt that serious consideration may be given to the vast racial demographic and socioeconomic changes happening in Burlington since these plans began and the adverse and disproportionate impact that this project has on one of the most diverse and socioeconomically disadvantaged communities in Burlington.</p> <p>Most disturbing is that this project blatantly protects white affluent communities at the expense of the health and prosperity of black and brown and poor communities (traffic, pollution and property values). It ignores the fact that the superfund site exists because of the white capitalist greed and is complicit at best in the unwillingness to do what so clearly best for all in addressing the mitigation of the superfund site in conjunction with (or as a condition for) this project. Instead of cleaning the site, the decision has been made instead to run a highway through the middle of the second most diverse community in Burlington? This is wrong.</p> <p>As the racial demographics of our State continue to change, we owe it to ourselves both morally and economically to create and maintain an environment where the black, brown people and poor are safe and made to be able to prosper. We can do better and we must do it now. Stop the project and include the impacted community in planning.</p> <p>Respectfully,</p> <p>Mark Hughes ED, Justice For All Coordinator, Vermont Racial Justice Alliance e: mark@justiceforallvt.org t: @Mark_A_Hughes m: 802.532.3030</p>	<p>This LS DSEIS was prepared to assess environmental justice concerns related to the Project. The LS DSEIS analysis concludes there are no low-income communities in the study area based on HHS guidelines and a review of Census data. The LS DSEIS identified a minority population in the Maple and King Street neighborhood and concludes the Project will not result in a disproportionately high and adverse effect on this environmental justice community.</p> <p>The Project will include improvements for all modes of transportation on Pine Street in the Maple and King Street neighborhood. These improvements will be made to the existing street footprint; a new roadway alignment is not being proposed to run through the Maple and King Street neighborhood.</p> <p>In addition to the September 26, 2019 outreach meeting, an additional open house was in fact held at the King Street Center on October 7, 2019. As part of the current NEPA process, additional outreach and engagement opportunities will be available to the Maple and King Street neighborhood. All public engagements will be advertised, and accommodations will be made for non-English speakers in the Maple and King Street neighborhood.</p>
10/9	Email	Elisabeth Wegner		<p>Dear Mr Sikora,</p> <p>I am a longtime resident of Burlington VT and have lived in many different neighborhoods over the last 30 years. Currently I live in the south end and I support the construction of the Champlain Parkway. But it is critical to consider a redesign for many reasons including the new traffic volumes that will occur with the re zoning of the Industrial area on Queen city park road and the City's commitment to become carbon net zero by 2030. I strongly support Champlain Parkway re-design to make it a safer and more friendly thoroughfare for driving, biking and walking. In particular the use of roundabouts and creation of separate safe bikeways and walkways are critical. I have driven and bicycled in many countries throughout Europe and have always found that the ubiquitous traffic roundabouts are so much superior to stop lights or stop signs at intersections. Thank you for your consideration.</p> <p>Sincerely,</p> <p>Elisabeth Wegner MD</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>
10/9	Email	Evan Kendall		<p>To Whom it May Concern,</p> <p>I write to urge that further assessments be made for this project.</p> <ul style="list-style-type: none"> <li>• As there has been an explosion of development in Burlington's South End, I do not see how a nearly 10-year old Environmental Impact statement could be reassessed.</li> <li>• <b>Assess the possibility for a roundabout/traffic circle at the intersections of Pine St and Maple/King streets.</b></li> </ul>	<p>This LS DSEIS was prepared to assess environmental justice concerns related to the Project. The LS DSEIS analysis concludes there are no low-income communities in the study area based on HHS guidelines and a review of Census data. The LS DSEIS identified a minority population in the Maple and King Street neighborhood and concludes the Project will not result in a disproportionately high and adverse effect on this environmental justice community.</p>

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				Thank you, Evan Kendall	In consideration of the application of roundabouts for the Pine Street/Maple Street and Pine Street/King Street intersections, it was identified that a single-lane roundabout is not feasible to be constructed at either of these two intersections because of the physical constraints and existing built environment. Although mini roundabouts might be able to fit physically; they are not recommended for the intersections of Pine Street/Maple Street or Pine Street/King Street because of considerations related to the arterial function of Pine Street, truck/bus accommodation, traffic performance, vehicle safety and pedestrian/bicyclist safety.
10/8	Email	Meg Tipper		Please reconfigure the Lakeside intersection to be a roundabout and be more forward thinking to reduce cars traveling into Burlington: cycling lanes and public transit parking and connections (light rail?). Don't build the plans of the past; built for the future!	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/8	Email	Cheyanne Warren		I support a redesign of the Champlain parkway for safe travel for cars, bikers and pedestrians from the south end to downtown. I support a plan that keeps emissions down and keeps traffic flowing.  Sincerely, Cheyanne Warren	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/8	Email	Christie Delphia		Why must this Cities Officials always Ignore the Rules surrounding the Projects They want to Improvise ? We live here, this is Our City ! Every time They Have a Project it Always Hits the Low Income and Impoverished Neighborhoods - This City Government is making atrocious decisions against Low Income Residents, And it's time for it to Stop ! It is also time For City Government to Start Caring for the Safety of ALL of this Cities Constituents , Not just the Wealthy ones and the Developers ! NO TO THE PARKWAY ! As an Admin to the Burlington Tenants Union + Organizing We are fed up with the Disrespect this Mayor and his Developer Friends are showing to the Low Income and Impoverished of Burlington ! WE say Enough is Enough, No More !!	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/9	Email	Barbara Carroll		I support Champlain Parkway re-design to make it a safer and more friendly thoroughfare for driving, biking, and walking.	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/10	Email	Vicki Zion		Hello. As a long time resident of the south end who deals with cut through traffic on my street, I fully support the Southern Connector. I look forward to it's being built. Thank you	Your support for the Project is noted. This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.
10/10	Email	Jacob Flanigan		I heard that sharrows and other non dedicated bike facilities are being considered for the Champlain parkway. This would be an awful thing. If we are building such a big and important new artery into the city we need to put in the bike infrastructure upfront as the fight to put it in after will be incredibly hard.  Biking South out of Burlington is quite scary. There aren't a lot of good options unless you want to go far out of your way. This would be the perfect road to provide a safe bike route to the South.  I would love to talk about this further. Please don't hesitate to contact me.  Jacob flanigan	This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.

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10/10	Email	Diane Gayer		<p>Oct. 10, 2019</p> <p>to: Ken Sikora, FHA and Wayne Davis, VAOT</p> <p>from: Diane Gayer</p> <p>I am responding to a request for comments on the Parkway that are due by today.</p> <p>I have been involved in the community conversations, as well as studied and reviewed the engineered designs as they've come out of the decades and current years. I have led community-wide charrettes for the neighborhoods surrounding the Pine Street area (both 3-years ago and twenty-years ago) as an architect and regional planner.</p> <p>So here are my comments: There needs to be a new EIS study. The conditions that the engineering and landscape design are based on have dramatically changed. There are any traffic and environmental conditions that will be worse with this current plan.</p> <ol style="list-style-type: none"> <li>1. Do NOT dead-end Pine Street at South Burlington. Make the connection to 189 a roundabout facility.</li> <li>2. Continue the street network in the south end especially at Batchelder. A grid of street is much friendlier on a neighborhood than thoroughfares.</li> <li>3. Do NOT design the Parkway for high-speed clearances and then post it for low-speed travel. This does not work and is not proper engineering standards.</li> <li>4. End the Parkway at Flynn Avenue. Do not extend it across Englesby Brook, just to dead-end it at Lakeside instead... forcing a right-turn and difficulty for Lakeside Resident access.</li> <li><b>5. Develop a coherent plan for King and Maple Streets before shoving more traffic through the intersections. Publicly proposed (and used elsewhere in Burlington as traffic-calming measures) is a one-way loop from Pine to Main and back again on South Champlain.... creating half the traffic in each direction as it flows thru.</b></li> <li>6. Impact of stormwater flow and sewer line connectivity are still troublesome in this area and these are not being addressed by the City as part of this project, to my knowledge. Which means that the project does not meet Livable City standards (which Burlington claims) or Stormwater Management Permit conditions. This is a failure of the current plan and could be mitigated with a proper EIS. No doing so is legally actionable.</li> <li>7. Thinking to the future, the pattern of residential and industrial/business uses in the South End has changed over the last 20 years. The Parkway was not designed to address the new uses and street functionality needs that are building up within the area. The old concept was to get trucks and cars speedily into Burlington's center... now it's a layering of increasing local traffic (including festivals), many fewer trucks headed for Burlington (down to 4%), and commuter traffic (both bike and car).</li> </ol> <p>Please take into account these and many other comments you receive. It is our money after all that you are spending.</p> <p>Thank you for your time,</p>	<p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>A one-way street pattern alternative involving Pine Street and South Champlain Street was evaluated in the 2009 FSEIS and was ultimately rejected due to right-of-way, socioeconomics, Section 4(f), and railyard impacts. Refer to the 2009 FSEIS for more information and analysis.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic. Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p>

Date Received	Method	Name	Address	Comment	Response
				Diane Elliott Gayer, Burlington , VT	
10/10	Email	Greg Hostetler		<p>Dear Mr. Sikora,</p> <p>While I do not support construction of the Champlain Parkway, I want any new road construction to prioritize the forms of transportation that are affordable to low income Vermonters and also have the lowest environmental impact - walking, biking, and public transit. Our city unfortunately lacks any protected bike lanes, and this would be a good opportunity to show how they can be incorporated. Burlington also lacks any dedicated bus lanes, and the south end would be a perfect place to allow transit riders to conveniently pass all of the traffic currently caused by automobiles.</p> <p>Please do not squander this opportunity to build a road right. We need dedicated bus lanes, dedicated and protected bike lanes, and wide sidewalks. If we dedicate all of our public space to cars and trucks, we are just encouraging bad behavior and clogging our roads.</p> <p>Sincerely,</p> <p>Greg Hostetler Burlington</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>

Date Received	Method	Name	Address	Comment	Response
10/10	Email	Steve Goodkind		<p>To: Burl-comments@vermont.gov  From: Steve Goodkind, P.E. retired  Re: Champlain Parkway: Environmental Justice Impacts  Date: 10-10-2019</p> <p>My name is Steve Goodkind. I am a retired licensed professional engineer with a degree from UVM in civil engineering. From 1983 t 2012 I served as the city engineer for Burlington and from 1998 to 2012 I was also the Public Works Director. I retired in 2012.</p> <p>I have a long history with the Champlain Parkway, going back to my earliest days as city engineer, when it was called the Southern Connector. During the times when the 1997 and 2009 EISs were prepared, I was the city’s designated project manager.</p> <p>While the term environmental justice has only relatively recently come to describe the concern that projects, such as highways, not disproportionately impact low income and minority areas, Burlington has had a long history of abiding by this principle when planning for the Champlain Parkway. The Maple/King neighborhood was always recognized as a low income and ever increasing minority resident neighborhood that the city intended to protect.</p> <p>During the 30+ years of project development prior to 2009, the city maintained the position that traffic from this project would be reassigned from Pine Street, in the Maple/King Street area, to the new road. Even as the route and scale of the roadway changed over time, this was a constant, unwavering commitment.</p> <p>This is clear from reading the discussion of the alternatives analyzed in the 1997 EIS. The city strongly objected to a route that would use Pine Street through Maple and King. The selected alternative placed the new road south and west of this neighborhood.</p> <p>When the process of updating the EIS began in 2006, the Maple/King route was looked at again, however the city still believed it was unacceptable. We were literally shocked when the FHWA indicated that they now wanted this to be the preferred alternative. For the better part of two years the city made arguments against this route, including for environmental justice reasons.</p> <p>Eventually, after receiving a letter from the FHWA advising us that further efforts to object to their preferred alternative would jeopardize project funding, we ceased our fight. The ROD was issued in 2009. I say without hesitation that everyone on the city’s design and legal team that was involved in the EIS process, including those who continue to work on the project to this day, believe that the decision of the ROD was a huge mistake.</p> <p>The ROD did not end the city’s concern for the impact of the project in the Maple/King neighborhood. It went so far as to put forward another project called the Rail Enterprise North Project. This is a thinly veiled effort to build a road to deal with the negative impacts of the Parkway by constructing a network of roads to divert traffic around the Maple/King neighborhood. The state and FHWA have been cooperating in this effort, which shows that they too recognize the problem with the ROD and are looking for a way out.</p> <p>Two factors have come into play since the ROD. One is that environmental justice criteria now have a much stronger mandate and two is that the Parkway has not yet gone to construction and must meet current requirements before it can. The DOJ has said as much and is requiring the project to undertake an environmental justice review now. (My comments about the inadequacy of the public outreach effort associated with this review and the way the issue of environmental justice was not explained or even mentioned at the one and only public information meeting, can be seen on the video taped record of that meeting.)</p>	<p>Environmental Justice (EJ) was evaluated as part of previous NEPA submissions, including the 2009 FSEIS. FSEIS and NEPA documentation was developed in accordance with FHWA Order 664023 and the Guidance on Environmental Justice and NEPA. EJ was considered at the time of these submissions per the guidance available at the time and is being re-evaluated today consistent with the current EJ guidance.</p> <p>EJ review protects low-income, minority, and/or tribal populations from disproportionately high and adverse human health or environmental impacts.</p> <p>The Project has always complied with the guidelines and processes available. Environmental Justice (EJ) was evaluated as part of previous NEPA submissions, including the 2009 FSEIS. FSEIS and NEPA documentation was developed in accordance with FHWA Order 664023 and the Guidance on Environmental Justice and NEPA. EJ was considered at the time of these submissions per the guidance available at the time and is being re-evaluated today consistent with the current EJ guidance.</p> <p>This LS DSEIS was prepared to assess environmental justice concerns related to the Project. The LS DSEIS analysis concludes there are no low-income communities in the study area based on HHS guidelines and a review of Census data. The LS DSEIS identified a minority population in the Maple and King Street neighborhood and concludes the Project will not result in a disproportionately high and adverse effect on this environmental justice community.</p> <p>Air analysis completed for the project shows that it is in compliance with the National Ambient Air Quality Standards (NAAQS) and Vermont’s Air Pollution Control Division (APCD) guidelines. There are no impacts anticipated, nor mitigation required.</p> <p>Regarding noise, traffic would have to double before there is a perceived change in noise. There are noise impacts anticipated at receptor locations along Pine Street. However, due to spatial constraints, noise mitigation measures are not feasible. Other receptor locations do not exceed the Noise Abatement Criteria (NAC) and do not require mitigation.</p> <p>Please refer to the corresponding traffic sections of this LS DSEIS for detailed assessment of traffic operations, volumes, and safety.</p> <p>At a regional level, the Champlain Parkway project does not bring more traffic into the City of Burlington. While the traffic modeling shows that there is a slight increase in daily traffic that will use the northern section of the project on Pine Street, this change is modest – estimated to be about 1,400 vehicles per day.</p> <p>The Project achieves the objective of removing commercial traffic from neighborhood streets. The purpose of the Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and US Route 7 to the Burlington CCD and the downtown waterfront area; to improve circulation, reduce congestion, and improve safety on local streets in the project area; to provide traffic relief in the southwestern quadrant of the City of Burlington; eliminate the disruption to local neighborhoods; and separate the local and through traffic.</p>

Date Received	Method	Name	Address	Comment	Response
				<p>The traffic numbers recently presented by the project designers at a public information meeting held on Sept. 26, eloquently demonstrate the lack of environmental justice this project provides to the Maple/King neighborhood. They will see traffic increase by over a third, while neighborhoods in the southern end of the project area will see traffic halved. It could not be any clearer. This project will result in a disproportionate impact regards to traffic and the noise, air pollution and safety elements that accompany it.</p> <p>Furthermore, there are alternatives that would mitigate the environmental justice problems. The project route approved in the 1997 EIS and the city's preferred route in the 2009 EIS (not the one the ROD selected) are two examples of this. If reopening the EIS process is required, which it obviously needs to be based on the evidence, there are probably a number of other design options more consistent with the current art of roadway design that could also be considered.</p> <p>There are viable options, including those that were previously approved, that meet the environmental justice criteria. The burden is now on this version of the project to demonstrate why it should be allowed to proceed when it does not meet that criteria.</p> <p>It is not too late to do this project right the first time.</p>	<p>Through traffic that is destined for the CCD or industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector / Champlain Parkway and removed from the local street network. The Parkway will serve as one more North-South Corridor Route connecting to the CBD. The reassignment of the majority of through traffic to this route would reduce overall traffic volumes and reduce commercial truck traffic on neighborhood streets.</p>
10/10	Email	Alex Hahl		<p>Hi, these are my views on the Champlain Parkway:</p> <p>Building the parkway would destroy a corridor of woods that runs through the south end. The trees I walk by every day would be gone. The pond where I watched eggs become tadpoles and tadpoles become baby toads would be gone. Instead there would be an asphalt highway.</p> <p>A highway costs money to maintain. A highway is noisy. A highway makes it easier to drive. None of these are good things.</p> <p>Alex Hahl</p>	<p>This LS DSEIS is limited in scope to only assess environmental justice impacts to low-income and minority populations and to address a limited portion of the Project along Pine Street between Maple Street and Main Street. Accordingly, only comments pertaining to environmental justice or the Maple and King Street Neighborhood will be addressed in this document.</p>

**APPENDIX 8: 2019 CHAMPLAIN PARKWAY NEPA REEVALUATION**

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**State of Vermont**  
**Agency of Transportation**  
**Environmental Section**  
One National Life Drive  
Montpelier, VT 05633

Matthew Hake, Division Administrator  
Federal Highway Administration  
87 State Street, Montpelier, Vermont 05602

May 2, 2019

Attn: Kenneth R. Sikora, Environmental Program Manager  
Re: Burlington MEGC M5000 (1), Southern Connector/Champlain Parkway  
FSEIS Reevaluation

Dear Mr. Hake:

The Burlington MEGC M5000 (1), Southern Connector/Champlain Parkway project, is located in the city of Burlington, Vermont. The project is a proposed transportation link located in the southwestern quadrant of the City of Burlington, Chittenden County, Vermont providing access between Interstate 189, U.S. Route 7 (Shelburne Street), and the City Center District (CCD).

A Record of Decision (ROD) was issued on January 13, 2010 based on a 2009 Final Supplemental Environmental Impact Statement (FSEIS). The FSEIS included a Section 106 determination of No Adverse Effect and a de minimis use of Section 4(f) resources. Since the completion of the FSEIS and the issuance of the ROD, there have been some minor revisions to the project. A Section 106 Amendment/ No Adverse Effect was issued on April 6, 2017 and an additional Section 4(f) De Minimis Determination was issued on May 5, 2017. The project is scheduled to be advertised for bids in 2019.

In accordance with 23 CFR 771.129(c) a re-evaluation of the FSEIS has been prepared for the project prior to FHWA's authorization of the construction phase. The re-evaluation discusses changes to the project design, project impacts, and proposed mitigation that have occurred subsequent to the 2009 FSEIS. A section by section summary of the changes are as follows:

Section C/2

- The Grocery Spur tracks will be removed to eliminate the at-grade crossing.

Section C/6

- The addition of a shared-use path along the western side of Pine Street between Lakeside Avenue and Kilburn Street.
- Traffic calming features on Pine Street including curb bump-outs and pedestrian actuated rectangular rapid flashing beacons at mid-block crosswalks will be added.
- On-street bike lanes between Lakeside Avenue and Locust Street, and Kilburn Street and Maple Street will be added.
  - Between Lakeside Avenue and Locust Street, the design will accommodate a 13-foot southbound combined bike/turn lane, one 11-foot travel lane in each direction, and a five-foot bike lane in the

northbound direction.

- Between Locust Street and Kilburn Street, and between Maple Street and Main Street, the design will feature a two-foot shoulder and 11-foot shared lane in the southbound direction while the northbound direction will consist of an 11-foot shared lane, a four-foot painted parking lane buffer and a seven-foot parking lane.
- Between Kilburn Street and Maple Street, the design consists of an 11-foot travel lane, 1.5-foot bike lane buffer and 5-foot bike lane in both directions.
- The Pine Street Rail Spur will be partially removed.
- The proposed shared-use path has been relocated from the southern side to the northern side of Lakeside Avenue to connect to the proposed share-use path on Pine Street.
- The City of Burlington received VTrans' approval in 2017 to underground overhead utilities on Lakeside Avenue.

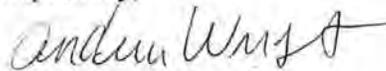
In addition, a summary of the changes in the affected environment within the project study area are as follows:

- The location of new wetlands (P and Q) along with delineations and renewed permitting.
- Impacts to a Special Flood Hazard Area as a result of 2011 revisions in the FEMA Flood Insurance Rate Maps.
- The Northern Long-eared Bat was identified as existing in the geographic area of the project.
- A 2015/2016 evaluation of developmental soils per new Agency of Natural Resources regulations resulted in the preparation of a Corrective Action Plan.
- Several localized traffic control changes have been incorporated into the project to integrate land use/development traffic.

These design modifications and changes in the affected environment have generally resulted in minor changes in project impacts and proposed mitigation. These changes are discussed in detail in the Re-evaluation of the 2009 FSEIS. The Vermont Agency of Transportation (VTrans) has reviewed the Re-evaluation for the project, considered the potential environmental consequences in accordance with the National Environmental Policy Act (NEPA), and recommends that the Record of Decision remains valid and requests your concurrence.

Please find attached a copy of the referenced Re-evaluation of the 2009 FSEIS for project Burlington MEGC M5000 (1), Southern Connector/Champlain Parkway. Please contact Jeff Ramsey at (802) 917-4467 or [jeff.ramsey@vermont.gov](mailto:jeff.ramsey@vermont.gov) if you have any questions or are in need of additional information.

Respectfully,



Andrea Wright, P.E.  
Environmental Services Manager

Endorsement to the Vermont Agency of Transportation

Concur Kenneth R. Sikora, Jr.  
Kenneth R. Sikora Jr. FHWA Environmental Project Manager

May 6, 2019

[Date]

Attachments

cc: Wayne Davis, Project Manager  
Project File

**KENNETH R SIKORA**  
Digitally signed by  
KENNETH R SIKORA  
Date: 2019.05.06  
08:24:53 -04'00'

**SOUTHERN CONNECTOR/CHAMPLAIN PARKWAY  
PROJECT MEGC-M5000(1)  
BURLINGTON, VERMONT**

**REEVALUATION OF  
2009 FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT  
STATEMENT**

MARCH 2019

PREPARED FOR:  
FEDERAL HIGHWAY ADMINISTRATION  
VERMONT AGENCY OF TRANSPORTATION  
CITY OF BURLINGTON

PREPARED BY:  
CLOUGH HARBOUR & ASSOCIATES, LLP  
IN ASSOCIATION WITH  
STANTEC CONSULTING SERVICES, INC.

# 1. PROJECT PURPOSE AND NEED

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## 1.1 Introduction

The Federal Highway Administration (FHWA) approved the 2009 Final Supplemental Environmental Impact Statement (FSEIS) for the Southern Connector/Champlain Parkway (Project) on September 22, 2009. A Record of Decision (ROD) was signed on January 13, 2010. The ROD selected Build Alternative 2 for further implementation, consisting of the C-1 Section, C-2 Section and C-6 Section, as described in the FSEIS. Following a Rail Diagnostic Update, various upgrades to two highway-rail crossing locations on Home Avenue and Flynn Avenue along the Project's C-2 Section were incorporated into the Project's scope. As these crossings lie outside the Project area demarcated in the FSEIS, the upgrades were reviewed under a separate Reevaluation. The Reevaluation for the highway-rail crossings received concurrence from FHWA on May 31, 2017. Since the completion of the FSEIS and issuance of the 2010 ROD, the Project plans have been refined as more detailed information has become available. Other changes have been incorporated as result of ongoing coordination between the City of Burlington and the public. The Project is currently in the right-of-way phase with construction scheduled to begin in 2019.

The intent of this Reevaluation is to assess the continued validity of the analysis contained in the 2009 FSEIS and the basis of the decision contained in the 2010 ROD. This Reevaluation will evaluate the environmental impacts associated with the current Selected Alternative, including any design advancements or refinements, and the Selected Alternative as described in the ROD. This Reevaluation will also review changes in the existing environment in the Project area that have occurred since the 2009 FSEIS.

## 1.2 Summary of Project History since the ROD

Following the identification of the Selected Alternative and the issuance of the 2010 ROD, the City of Burlington held a series of informational meetings to update the public on the status of the Project and to provide an opportunity to comment prior to the commencement of the permitting process. In response to the information gathered at public meetings and input from other concerned parties in the city, several new features were incorporated into the C-6 Section. These new features include:

- The addition of a shared-use path along the western side of Pine Street between Lakeside Avenue and Kilburn Street.
- Traffic calming features on Pine Street including curb bump-outs and pedestrian actuated rectangular rapid flashing beacons (RRFB) at mid-block crosswalks.
- On-street bike lanes between Lakeside Avenue and Locust Street, and Kilburn Street and Maple Street.

The City of Burlington subsequently obtained several construction permits previously described in the 2009 FSEIS and outlined in Chapter 4 of this Reevaluation.

The 2009 FSEIS stated that a revised Land Use Permit Application for the Act 250 permit would need to be filed to reflect the revisions incorporated therein (p 4-152). The City of Burlington filed this application at the Act 250 Regional District Office on April 15, 2011. The District Environmental Commission issued a Land Use Permit amendment to the City of Burlington and the Vermont Agency of Transportation (VTrans) on August 25, 2014.

A Rail Diagnostic Update was conducted on May 29, 2014 and amended on March 4, 2016 in accordance with the draft VTrans' Public Grade Crossing Guidance. As a result, upgrades to highway-rail crossings on Home Avenue and Flynn Avenue have been incorporated into the Project, including:

- Full-depth reconstruction of the crossings,
- Removal of existing gates and replacement with new gates in all four quadrants,
- Installation of a fixed-delay time system,
- Removal of curbed medians, and
- Installation of crossing gates for pedestrians and cyclists.

The upgrades at Home Avenue will include extending the shared-use path across the railroad tracks.

A separate FSEIS Reevaluation (attached in Appendix 3) was completed for the incorporation of the crossing upgrades at Home Avenue and Flynn Avenue. A Section 106 Amendment/No Adverse Effect was issued on April 6, 2017 and a Section 4(f) De Minimis Determination was issued on May 5, 2017. On May 31, 2017, FHWA determined that the 2010 ROD remained valid.

Due to regulations promulgated by the Vermont Department of Environmental Conservation (DEC) subsequent to the 2009 FSEIS, the City's consultants performed additional soil and groundwater investigations along the proposed Project corridor in 2015 and 2016 to evaluate the risk to groundwater associated with relocating Development Soil, as defined by the Resources Investigation and Remediation of Contaminated Properties Rule (I-Rule). A Corrective Action Plan has been prepared to outline corrective action activities for the Project and to mitigate the impact of hazardous materials to sensitive receptors to the maximum extent practicable. Refer to Chapter 4 of this Reevaluation for a more detailed discussion of hazardous materials impacts.

In 2017, the City of Burlington reached an agreement with Vermont Railway, Inc. to remove two obsolete rail spurs in the Project area. The so-called "Grocery" Spur near Sears Lane, and the Pine Street Rail Spur will both be partially removed as part of the Project. The 2009 FSEIS alluded to the partial removal of the Pine Street Rail Spur to a lesser extent and proposed a highway-rail grade crossing at the intersection of the Champlain Parkway and the Grocery Spur. With the Grocery Spur removed, the highway-rail grade crossing will not be necessary.

### **1.3 Project Description**

The Southern Connector/Champlain Parkway remains divided into three construction contracts referred to as the C-1 Section, the C-2 Section, and the C-6 Section. The description and limits for the C-1 Section and C-2 Section are unchanged from the 2009 FSEIS and Selected Alternative in the ROD. The C-6 Section commences at the terminus of the C-2 Section at Lakeside Avenue and proceeds easterly along Lakeside Avenue to Pine Street. It then follows Pine Street northerly to its intersection with Main Street in the City Center District of Burlington (CCD). The current C-6 Section is similar to the C-6 Section as described in the Selected Alternative in the 2009 FSEIS except for the proposed shared-use path which now extends to Kilburn Street along the western side of Pine Street.

### **1.4 Statement of the Project Need**

The existing problems and deficiencies that were identified in the 2009 FSEIS have not changed and are still considered valid. In summary, the Project needs defined in the 2009 FSEIS are:

1. Congestion (including insufficient capacity to appropriately service traffic volumes and provide appropriate access);
2. Safety concerns created by vehicles utilizing roadways that functionally operate at a higher classification than intended, both along the minor arterials and in neighborhood areas which are acting as short-cuts; and
3. Mix of local and through-traffic in neighborhood areas (including truck traffic) created by a lack of a north/south arterial to access the CCD.

### **1.5 Project Purpose**

The purpose of the Southern Connector/Champlain Parkway is unchanged from the Project purpose that was stated in the 2009 FSEIS:

The purpose of the Southern Connector/Champlain Parkway project is to improve access from the vicinity of the interchange of I-189 and U.S. Route 7 to the Burlington CCD and the downtown waterfront area; and to improve circulation, alleviate capacity overburdens, improve safety on local streets in the project study area and provide traffic relief in the southwestern quadrant of the City of Burlington.

The purpose of the project is also to eliminate the disruption to local neighborhoods and separate the local and through-traffic. Truck traffic that is destined for the CCD or the industrial areas accessed from Home Avenue and Flynn Avenue would be directed onto the Southern Connector/Champlain Parkway and removed from the local street network. The proposed transportation corridor is expected to become the

major routing for north-south through-traffic in the area. The reassignment of the majority of through-traffic to this route would reduce traffic volume levels along neighborhood streets and improve accessibility to adjacent neighborhood areas.

## 2. ALTERNATIVES

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### 2.1 Introduction

This chapter will review the refinements to the design of the Selected Alternative as described in the 2009 FSEIS and 2010 ROD.

### 2.2 Final Design of the Selected Alternative

As described in the 2009 FSEIS, the Selected Alternative consists of the C-1 Section, the C-2 Section, and the C-6 Section. This alternative will be constructed as a two-lane roadway with turn lanes as needed. The Selected Alternative will connect I-189/U.S. Route 7 (Shelburne Street) to the CCD. The three sections of the final design of the Selected Alternative, including design refinements that have been implemented since the ROD, are described below. Layout plan sheets for all three sections are attached in Appendix 4.

#### C-1 Section:

The C-1 Section is generally unchanged from the description included in the 2009 FSEIS and the Selected Alternative in the ROD. This section consists of the reconstruction of the I-189/U.S. Route 7 (Shelburne Street) interchange, and the construction of the Champlain Parkway to Home Avenue. This portion of the Champlain Parkway was previously constructed as a four-lane facility. Within the limits of this previously built section, the roadway will be reconfigured to taper the cross section to one lane in each direction. Excess pavement will be removed or incorporated into a widened, raised grass center median along with lighting and landscaping. This section of the Project will provide a transition between the interstate and the city street system; the speed limit will be stepped down to 40 miles per hour near the Burlington City limit and to 25 miles per hour at a point immediately south of the Home Avenue intersection. The City of Burlington established a citywide speed limit of 25 miles per hour effective November 30, 2011. A typical cross section of C-1 Section is shown in **Figure 2-1**.

#### C-2 Section:

The C-2 Section will commence at the northern terminus of the C-1 Section, near Home Avenue, and extend northerly on a new alignment for approximately 0.7 mile and ending at a point immediately south of Lakeside Avenue. The C-2 Section is generally unchanged from the description provided in the 2009 FSEIS. The C-2 Section would still be a two-lane facility with dedicated turn lanes at the intersections. Subsequent to the 2009 FSEIS and the ROD, minor design refinements have been incorporated. Intersection corner radii have been reduced at certain locations to shorten pedestrian crossing distances and reduce vehicle turning speeds. The plans shown in the 2009 FSEIS included a new highway-rail at-grade crossing where the Champlain Parkway

would intersect the so-called “Grocery Spur” near Sears Lane. An agreement has been reached with the affected landowners and Vermont Railway, Inc. to remove the tracks and eliminate the at-grade crossing associated with a portion of the Grocery Spur within the Project right-of-way limits. A typical cross section of the proposed two lane, C-2 Section is shown in **Figure 2-2**.

#### C-6 Section

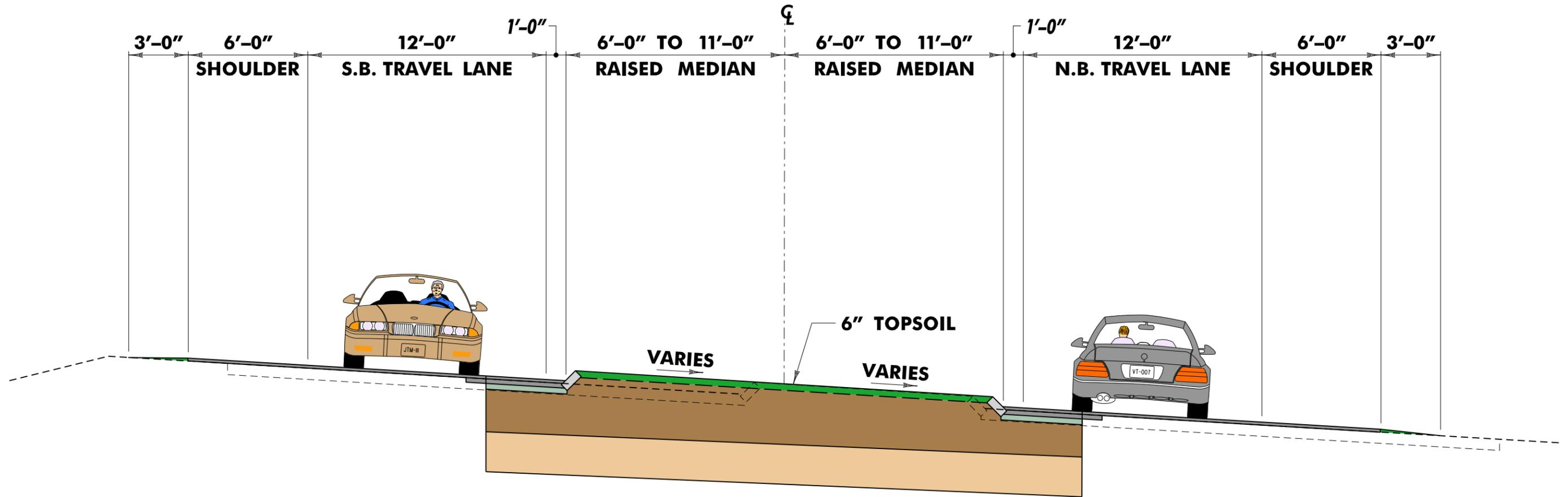
As described in the 2009 FSEIS, C-6 Section will utilize Lakeside Avenue and Pine Street to connect C-2 Section of the Project to the Burlington CCD at the intersection of Pine Street and Main Street.

#### Lakeside Avenue:

The proposed improvements to Lakeside Avenue are generally the same as those described in the 2009 FSEIS. The proposed shared-use path has been relocated from the southern side to the northern side of Lakeside Avenue to connect to the proposed share-use path on Pine Street. The City of Burlington received VTrans’ approval in 2017 to underground overhead utilities on Lakeside Avenue. The typical cross section for Lakeside Avenue is shown in **Figure 2-3**.

#### Pine Street:

The proposed design for Pine Street consists of cold planing and resurfacing the existing pavement, drainage improvements, new curbing, new concrete sidewalk, and construction of a new shared-use path between Lakeside Avenue and Kilburn Street on the western side. The typical cross sections for Pine Street are shown in **Figures 2-4 to 2-8**. Between Lakeside Avenue and Locust Street, the design will accommodate a 13-foot southbound combined bike/turn lane, one 11-foot travel lane in each direction, and a five-foot bike lane in the northbound direction. Between Locust Street and Kilburn Street, and between Maple Street and Main Street, the design will feature a two-foot shoulder and 11-foot shared lane in the southbound direction while the northbound direction will consist of an 11-foot shared lane, a four-foot painted parking lane buffer and a seven-foot parking lane. Between Kilburn Street and Maple Street, the design consists of an 11-foot travel lane, 1.5-foot bike lane buffer and 5-foot bike lane in both directions. The Project will extend along Pine Street up to and including the Main Street intersection. Traffic calming features including curb bump-outs; raised intersections at Howard Street, Marble Avenue and Kilburn Street have also been incorporated into the design.



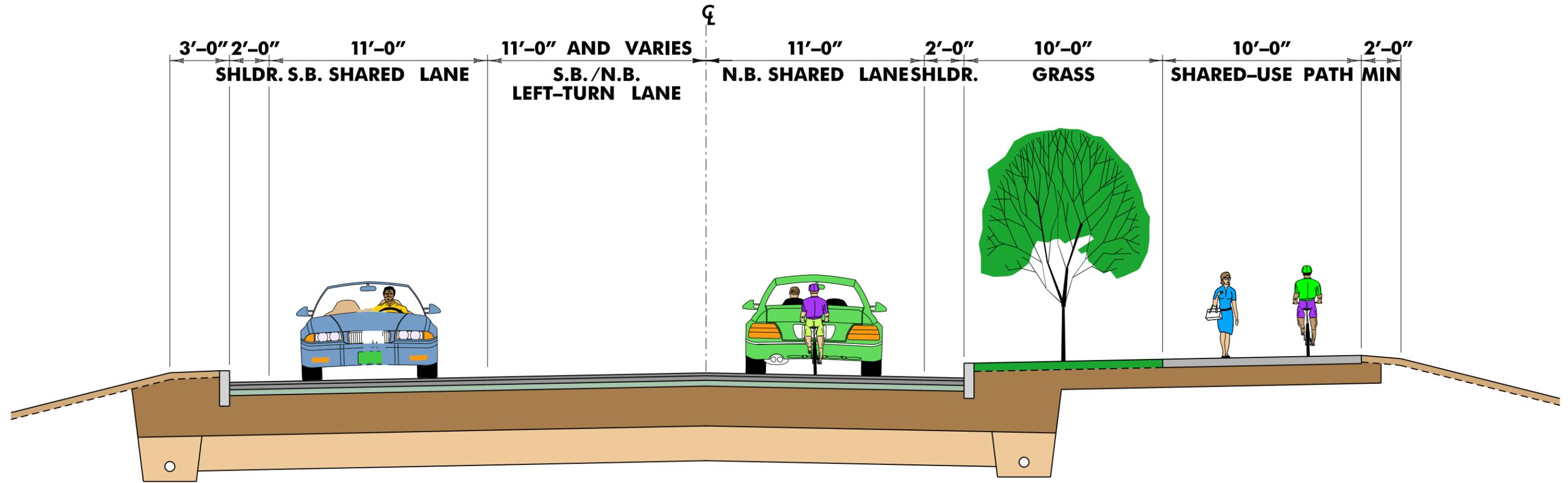
**SECTION C-1  
 PROPOSED TYPICAL SECTION  
 ROUTE 7 INTERCHANGE TO HOME AVENUE**

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 DATE: 11/20/2018  
 USER: J573

**Southern Connector/Champlain Parkway MEGC-M5000(1)**



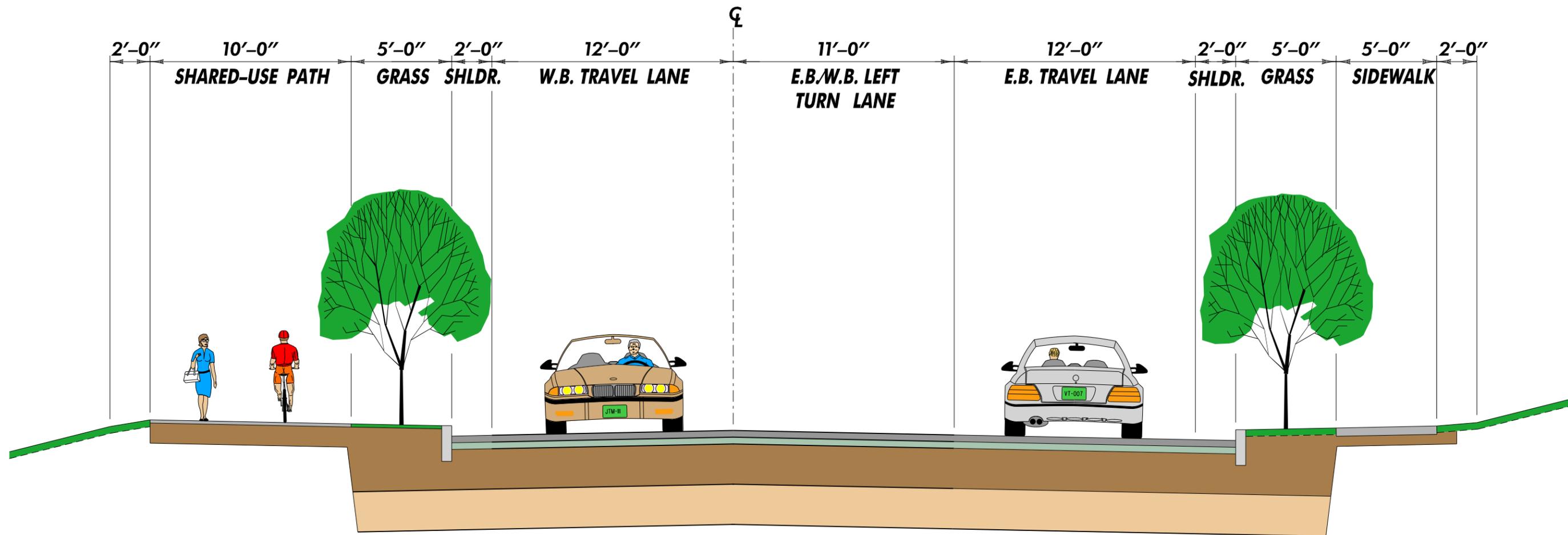
FIGURE 2-1  
 (TYPICAL I)  
 C-1 SECTION  
 SELECTED ALTERNATIVE



**SECTION C-2  
PROPOSED TYPICAL SECTION  
HOME AVENUE TO LAKESIDE AVENUE**

FILE NAME: I:\06859\PROJECTS\FSEIS\Current\2018 Overall Reevaluation\CADD\287d878typ-reval.dgn  
DATE: 11/09/2018  
USER: J373

<b>Southern Connector/Champlain Parkway MEGC-M5000(1)</b>	
 <small>III Winners Circle, PO Box 5269 Albany, NY 12205-0269 518.453.4500 • www.chacompanies.com</small>	FIGURE 2-2 (TYPICAL 2) C-2 SECTION SELECTED ALTERNATIVE

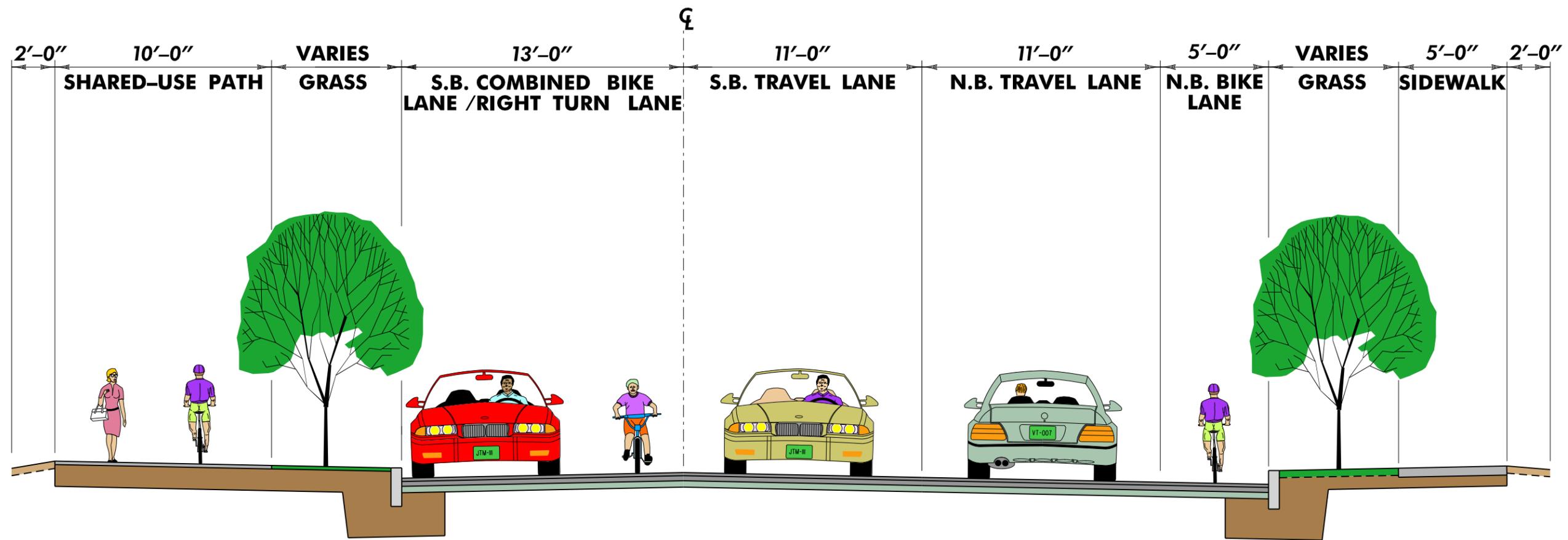


**SECTION C-6  
PROPOSED TYPICAL SECTION  
LAKESIDE AVENUE**

**Southern Connector/Champlain Parkway MEGC-M5000(1)**



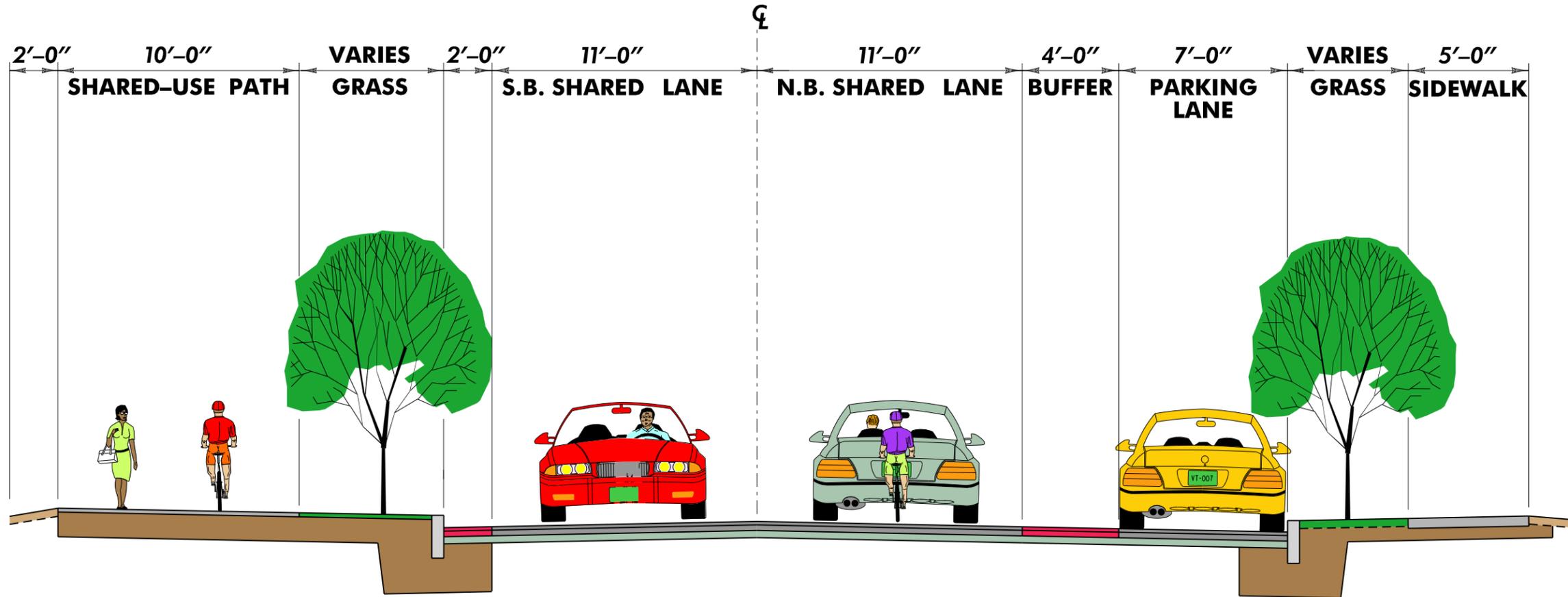
FIGURE 2-3  
(TYPICAL 3)  
C-6 SECTION  
SELECTED ALTERNATIVE



**SECTION C-6  
 PROPOSED TYPICAL SECTION  
 PINE STREET  
 LAKESIDE AVENUE TO LOCUST STREET**

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 DATE: 11/20/2018  
 USER: J3273

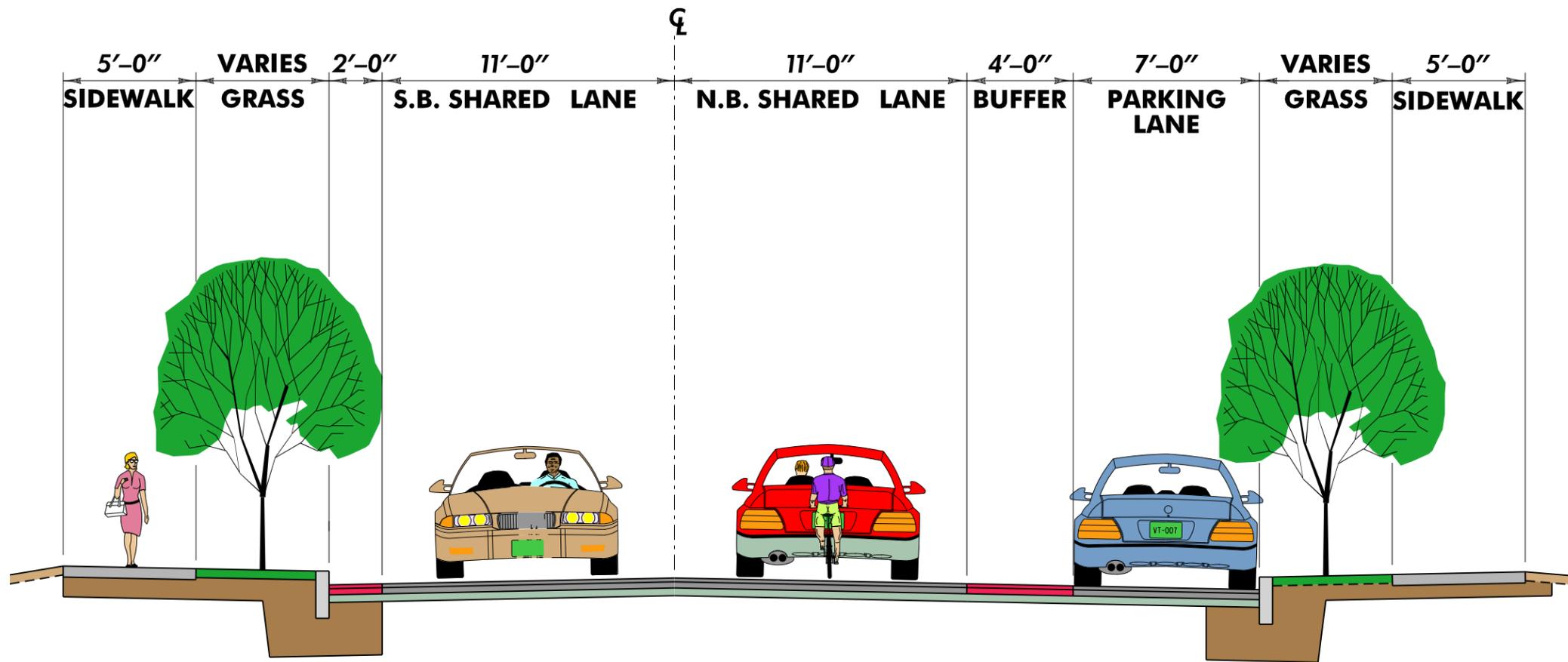
<b>Southern Connector/Champlain Parkway MEGC-M5000(1)</b>	
 <small>III Winners Circle, PO Box 5269        Albany, NY 12205-0269        518.453.4300 • www.chacompanies.com</small>	FIGURE 2-4 (TYPICAL 4) C-6 SECTION SELECTED ALTERNATIVE



**SECTION C-6  
 PROPOSED TYPICAL SECTION  
 PINE STREET  
 LOCUST STREET TO KILBURN STREET**

FILE NAME I:\0659\0659\0659\FSEIS\Current\2018 Overall Reevaluation\CADD\287d878typ-reval.dgn  
 DATE 11/20/2018  
 USER 13573

<b>Southern Connector/Champlain Parkway MEGC-M5000(1)</b>	
 <small>111 Winners Circle, PO Box 5269          Albany, NY 12205-0269          518.453.4300 • www.chacompanies.com</small>	FIGURE 2-5 (TYPICAL 5) C-6 SECTION SELECTED ALTERNATIVE

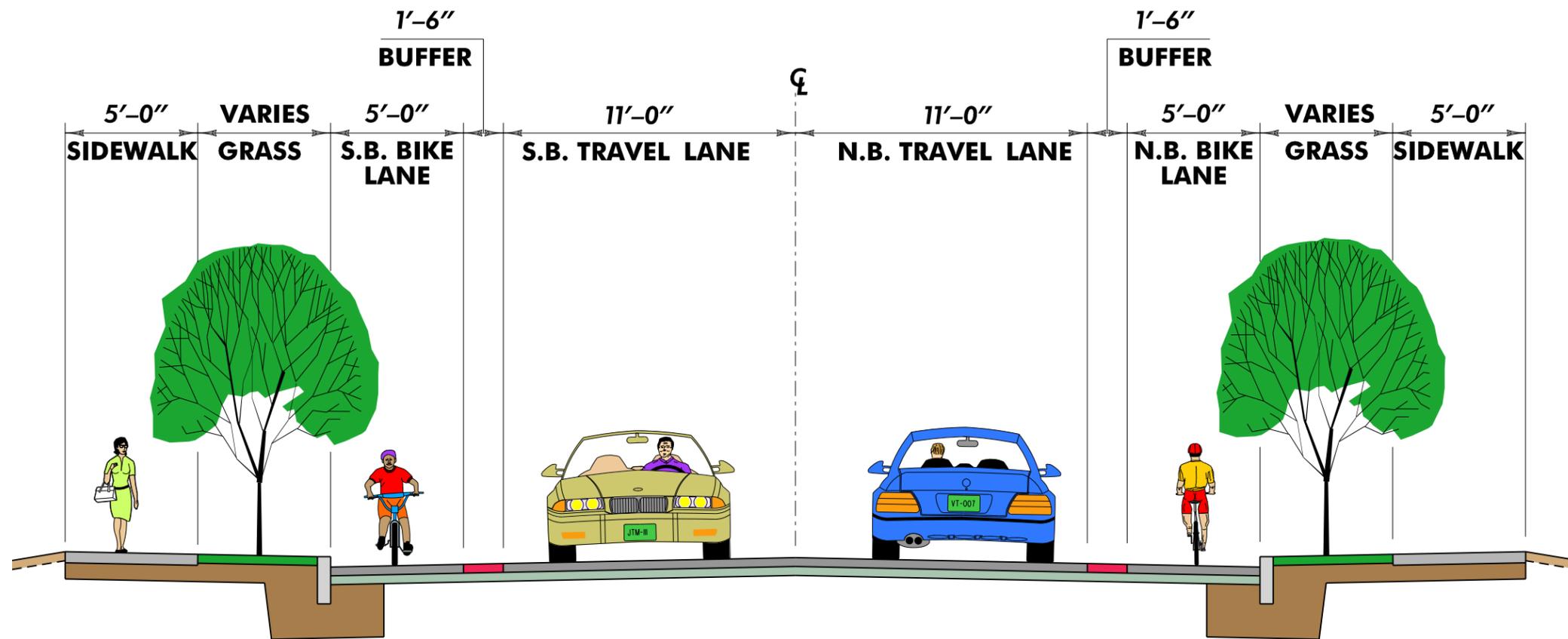


**SECTION C-6  
PROPOSED TYPICAL SECTION  
PINE STREET  
MAPLE STREET TO KING STREET**

**Southern Connector/Champlain Parkway MEGC-M5000(1)**



FIGURE 2-6  
(TYPICAL 6)  
C-6 SECTION  
SELECTED ALTERNATIVE

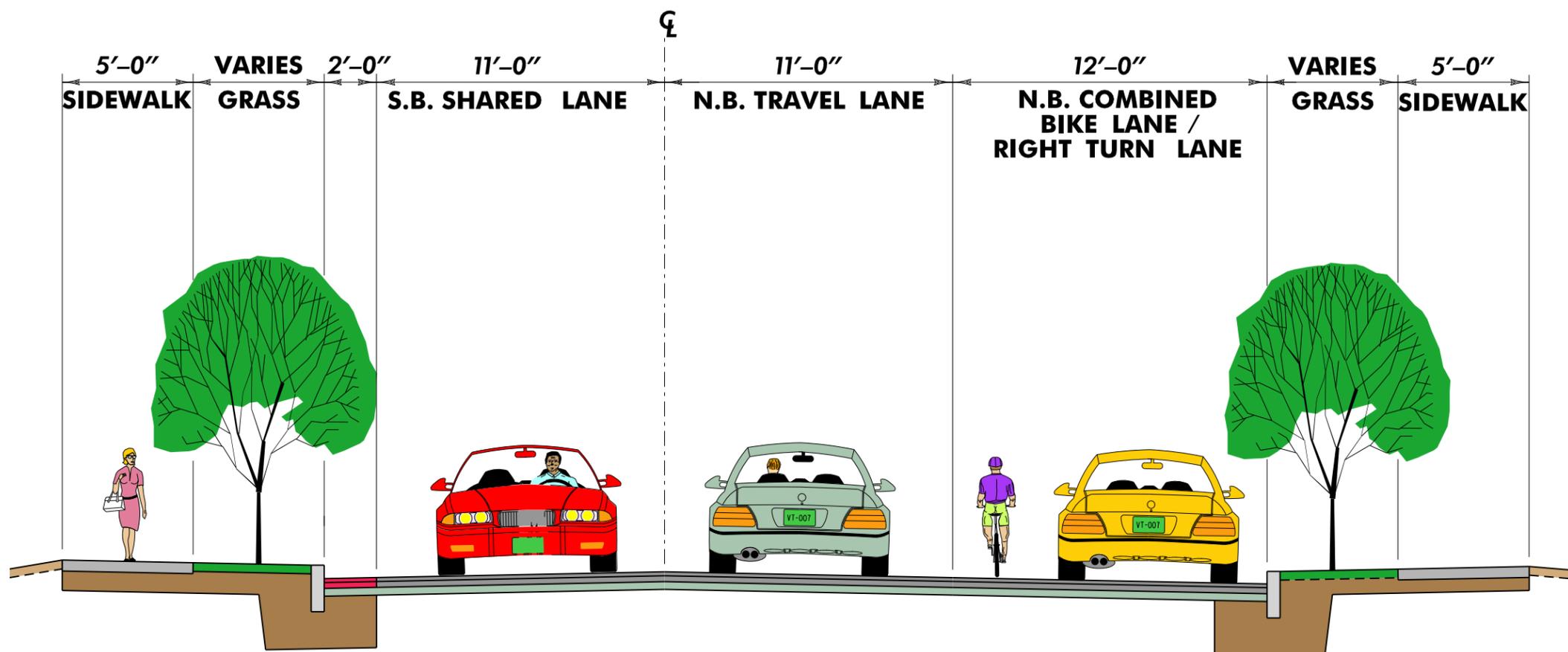


**SECTION C-6  
 PROPOSED TYPICAL SECTION  
 PINE STREET  
 KILBURN STREET TO MAPLE STREET**

**Southern Connector/Champlain Parkway MEGC-M5000(1)**



FIGURE 2-7  
 (TYPICAL 7)  
 C-6 SECTION  
 SELECTED ALTERNATIVE



**SECTION C-6  
 PROPOSED TYPICAL SECTION  
 PINE STREET  
 PINE STREET & MAIN STREET INTERSECTION**

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 DATE 11/29/2018  
 USER 13573

**Southern Connector/Champlain Parkway MEGC-M5000(1)**



FIGURE 2-8  
 (TYPICAL 8)  
 C-6 SECTION  
 SELECTED ALTERNATIVE

## **3. AFFECTED ENVIRONMENT**

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### **3.1 Introduction**

The following sections provide updated information regarding the transportation system, natural and cultural resources, and social and economic characteristics in the Project area that have arisen since the completion of the 2009 FSEIS.

### **3.2 Transportation Systems**

#### **3.2.1 Traffic Operations**

The study areas for the traffic operations aspect of the Project are unchanged from the 2009 FSEIS. Table 3-1 (next page) presents a summary of existing (2016) traffic volumes within the Primary study area. This table also shows the 2003 volumes from the 2009 FSEIS (base year condition), and the percentage of volume changes over this time period.

The traffic volumes representing 2016 existing conditions shown in Table 3-1 were compiled from road tube counts and manual intersection counts available through the VTrans Traffic Data Management System<sup>1</sup> for various years (2009-2016). This data was also supplemented with manual peak-hour counts conducted by CHA at several intersections in 2013. The volume data were adjusted to the 2016 year consistent with the methodologies used for volume development of the 2003 base conditions for the 2009 FSEIS.

In general, traffic volumes have decreased within the Primary study area, although the basic patterns of traffic flow continue to be similar. One notable change is the increased volume on Lakeside Avenue resulting from development that has occurred along this street since the completion of the 2009 FSEIS. Although traffic volumes along Pine Street have decreased by 5-10% throughout the corridor during the same time period, the volumes on the segment between Flynn Avenue and Maple Street continue to be high, with two-way volumes between 1,200 and 1,500 vehicles per hour during peak hours.

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<sup>1</sup> VTrans Transportation Data Management System website:  
<http://vtrans.vermont.gov/operations/technical-services/traffic>

Table 3-1: Traffic Volume Summary – Primary Study Area

Roadway	Segment	2003						2016						% Change					
		AADT		AM Peak		PM Peak		AADT		AM Peak		PM Peak		AADT		AM Peak		PM Peak	
		Hour	Hour	Hour	Hour	Hour	Hour	Hour	Hour	Hour	Hour	Hour	Hour	Hour	Hour	Hour	Hour	Hour	
Pine Street	Home Avenue to Flynn Avenue	8,600	880	1,030	880	1,030	8,080	885	925	885	925	8,080	885	925	-6%	1%	-10%	885	925
	Flynn Avenue to Lakeside Avenue	14,100	1,255	1,550	1,255	1,550	13,100	1,280	1,475	1,280	1,475	13,100	1,280	1,475	-7%	2%	-5%	1,280	1,475
	Lakeside Avenue to Maple Street	12,800	1,195	1,410	1,195	1,410	11,960	1,135	1,235	1,135	1,235	11,960	1,135	1,235	-7%	-5%	-12%	1,135	1,235
	Maple Street to Main Street	5,500	455	500	455	500	5,110	420	465	420	465	5,110	420	465	-7%	-8%	-7%	420	465
Battery Street	Maple Street to Main Street	9,500	1,040	1,250	1,040	1,250	8,360	910	1,100	910	1,100	8,360	910	1,100	-12%	-13%	-12%	910	1,100
Lakeside Avenue	Rail Overpass to Pine Street	4,300	345	430	345	430	5,850	475	585	475	585	5,850	475	585	36%	38%	36%	475	585
Maple Street	Pine Street to Battery Street	7,400	740	890	740	890	6,300	730	755	730	755	6,300	730	755	-15%	-1%	-15%	730	755
King Street	Pine Street to Battery Street	4,000	320	445	320	445	4,130	345	460	345	460	4,130	345	460	3%	8%	3%	345	460
Main Street	Pine Street to Battery Street	7,900	705	795	705	795	7,600	710	765	710	765	7,600	710	765	-4%	1%	-4%	710	765

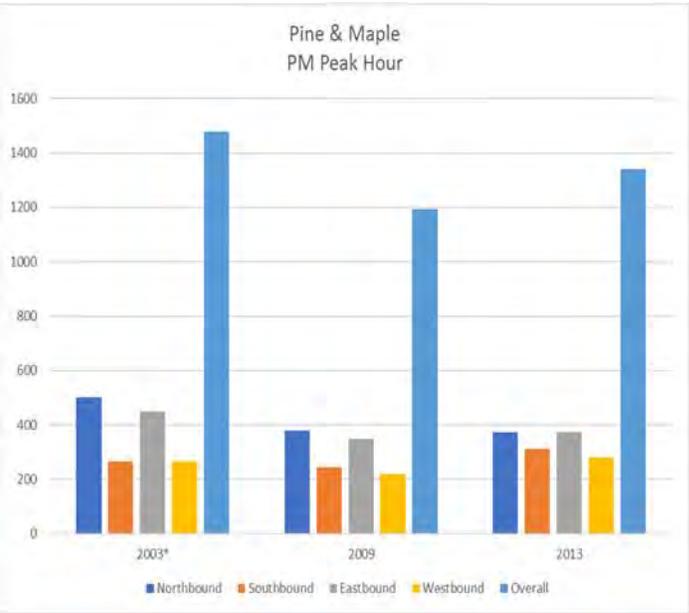
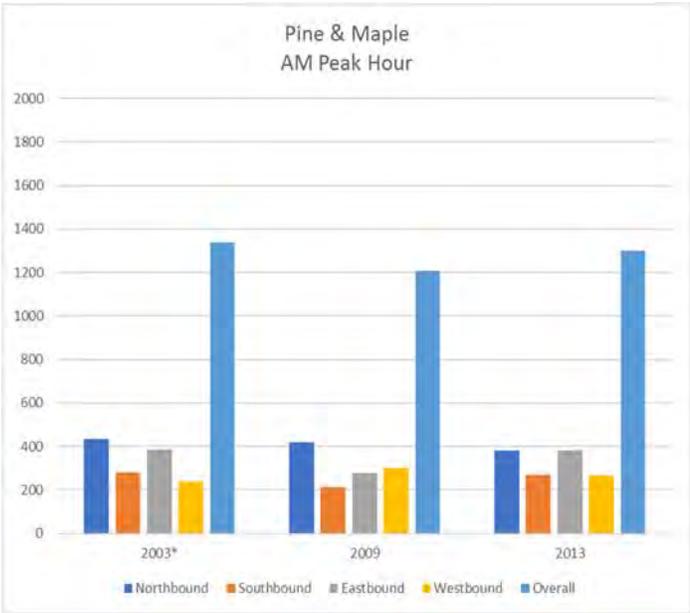
Intersection turning movement data was compiled for five representative intersections within the Primary Study area along Pine Street and four intersections within the Secondary study area to show the changes in peak-hour volume that has occurred between 2003 and 2016. These key intersections are shown in Exhibit 3-1.

*Exhibit 3-1: Key Study Intersections*

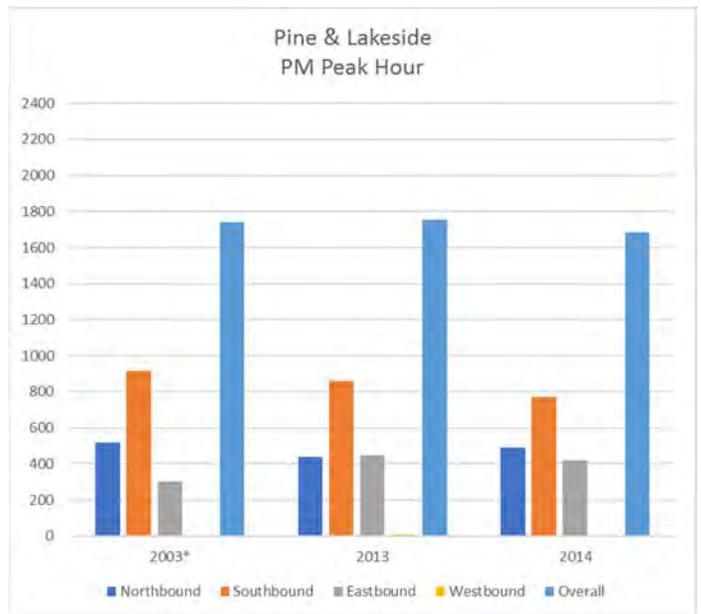
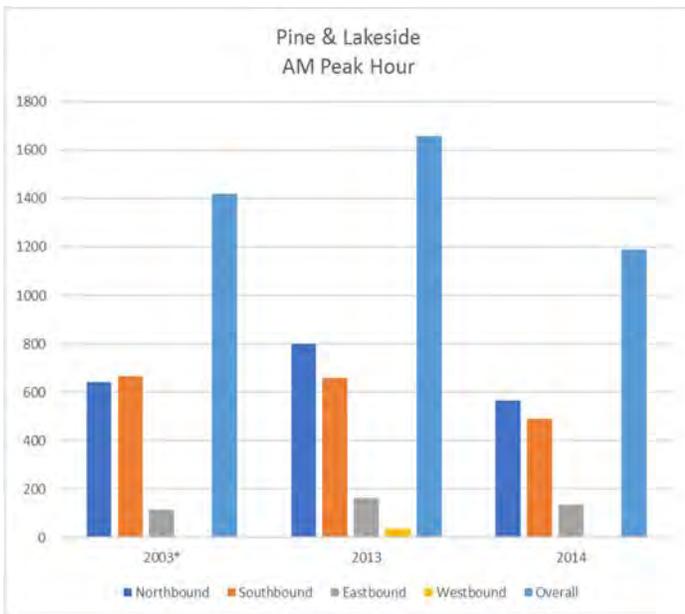
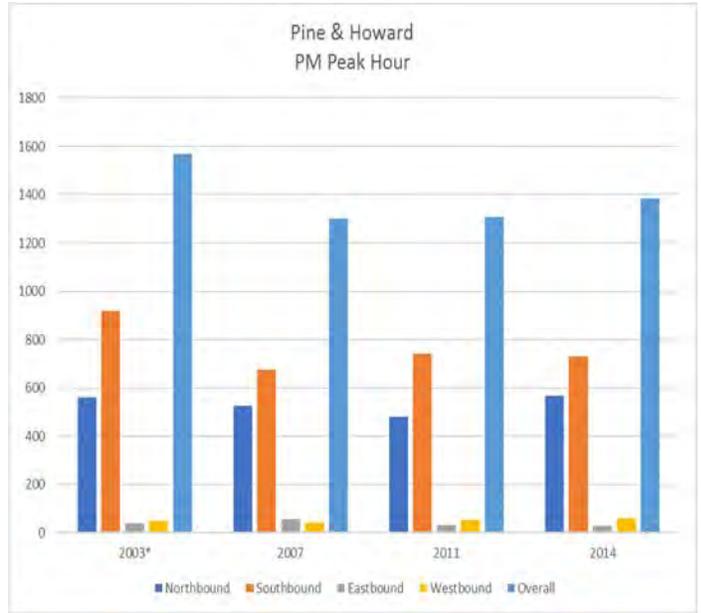
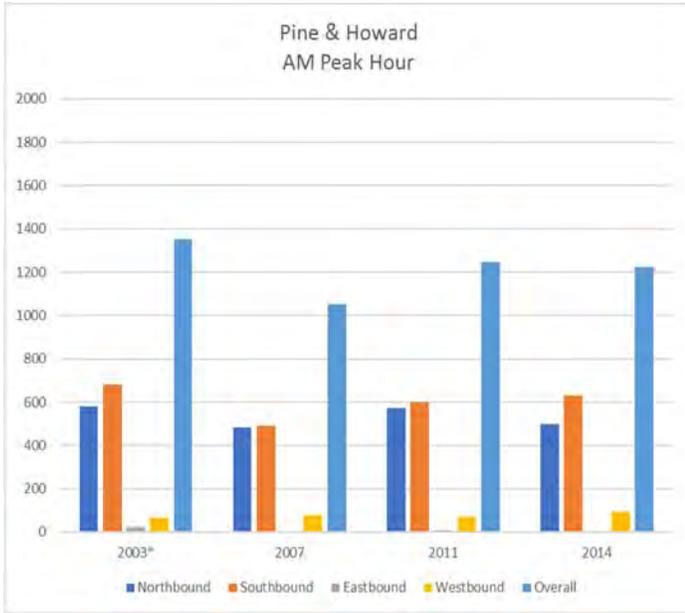


The AM and PM peak hour traffic volumes at each of these intersections are presented below, showing the volume trends from available data through the period from 2003 to 2016.

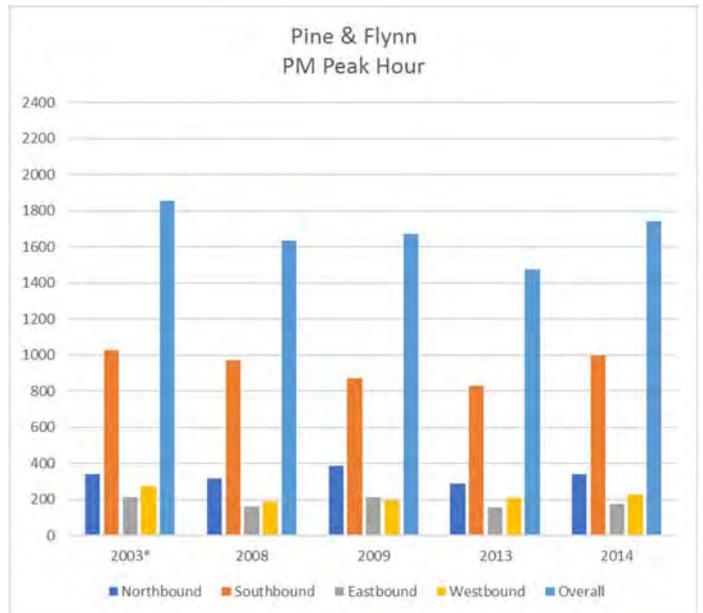
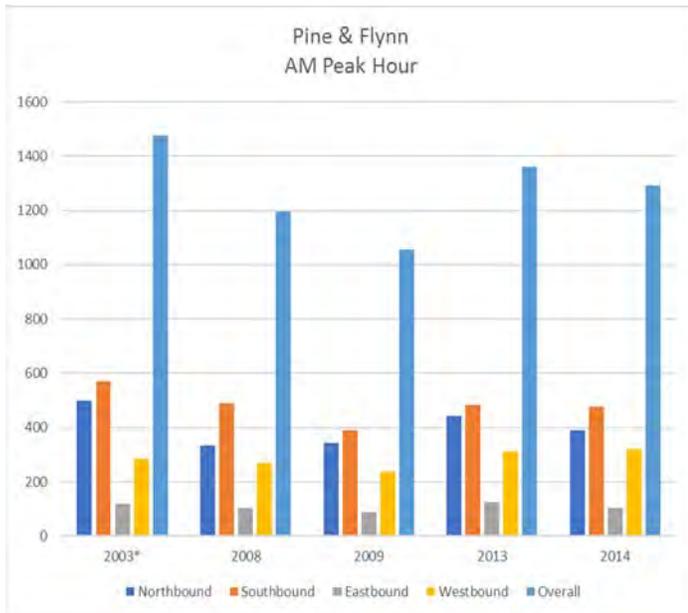
## Exhibit 3-2 Primary Study Intersection Traffic Volumes



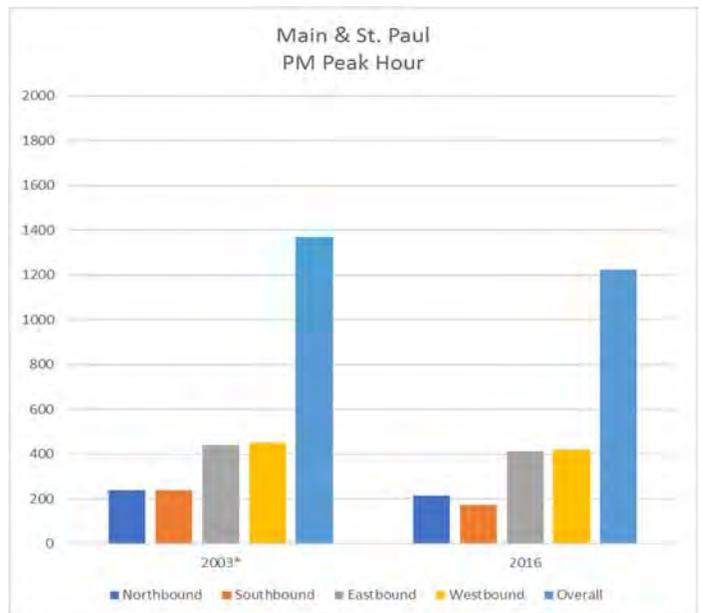
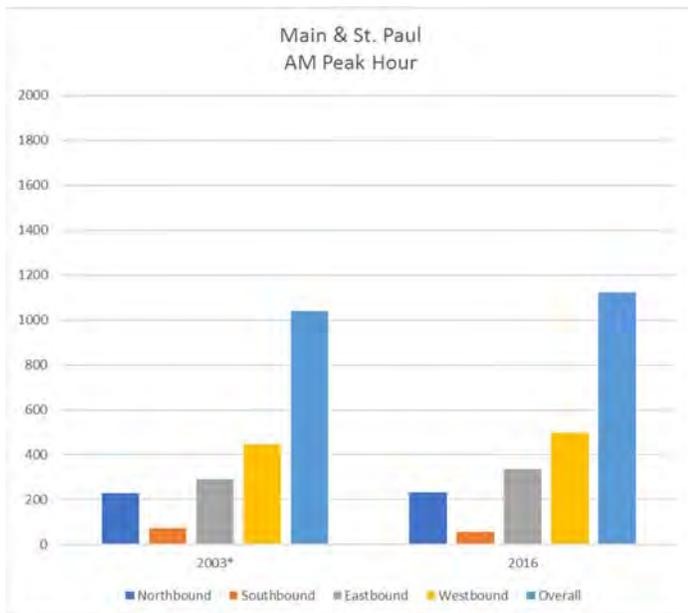
\* volumes from the Champlain Parkway 2009 FSEIS



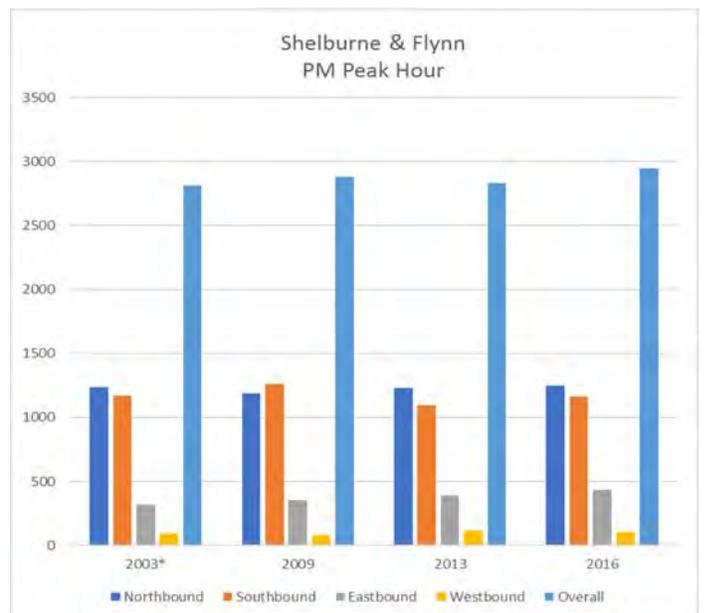
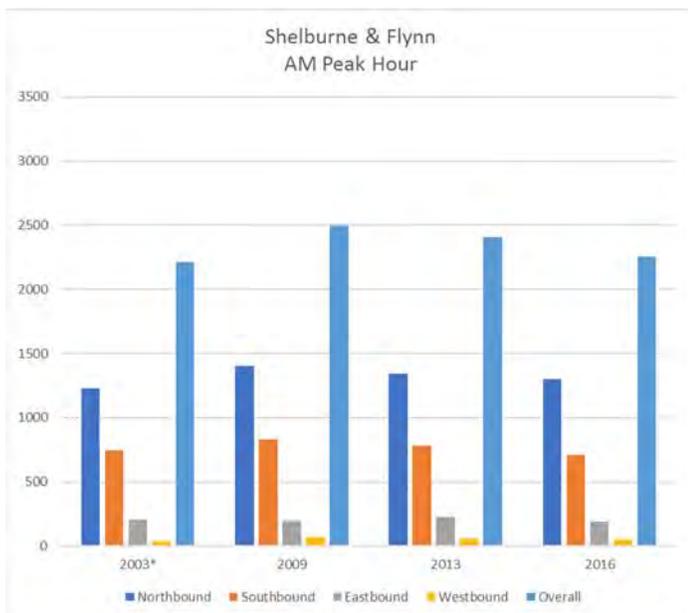
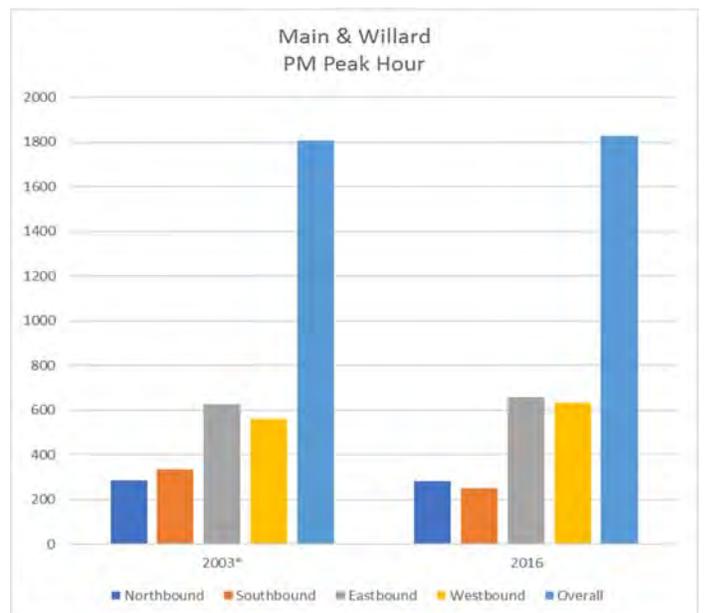
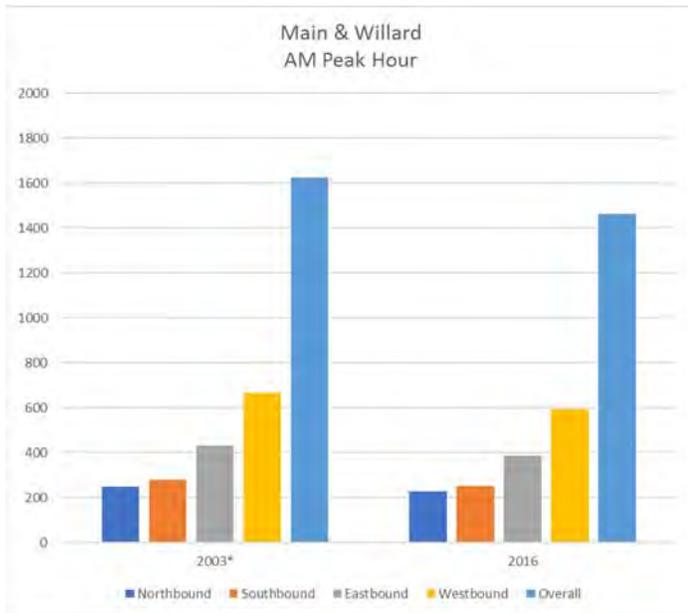
\* volumes from the Champlain Parkway 2009 FSEIS



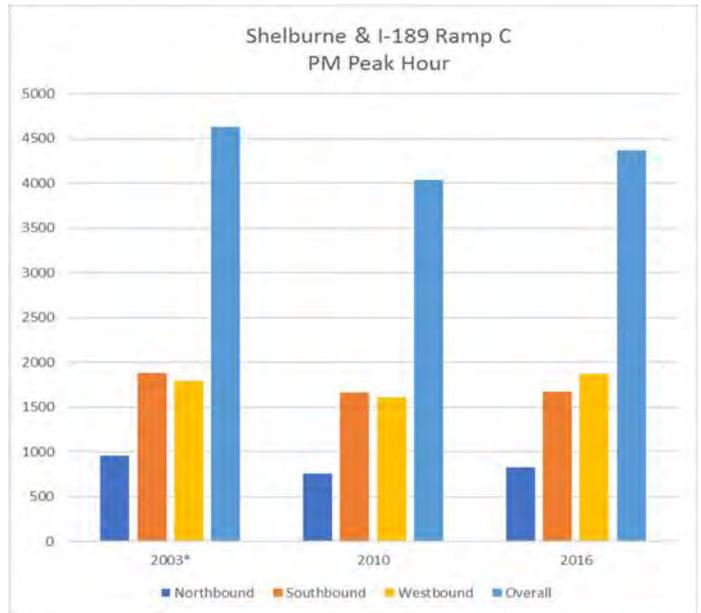
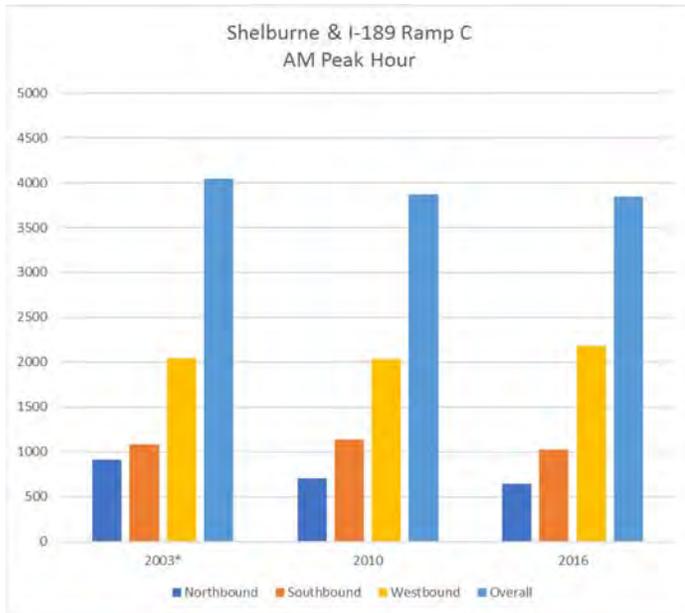
**Exhibit 3-3 Secondary Study Intersection Traffic Volumes**



\* volumes from the Champlain Parkway 2009 FSEIS



\* volumes from the Champlain Parkway 2009 FSEIS



\* volumes from the Champlain Parkway 2009 FSEIS

The peak hour volume data at these intersections shows that the peak hour volumes have been generally consistent over the past 10-15 years. The year-to-year variations of traffic volumes are relatively small.

Heavy trucks (single unit and tractor trailer combinations) constitute approximately 10% of the daily traffic on Pine Street between Flynn Avenue and Lakeside Avenue, and 5% of daily traffic north of Lakeside Avenue. Buses account for about 2% of daily traffic throughout the corridor. Trucks and buses together comprise about 6% of the AM peak hour traffic and 3% of the PM peak hour traffic at the key intersections along Pine Street. These peak hour truck percentages are higher than in the 2003 base condition of the 2009 FSEIS (2%). Some of the increase in truck percentage may be attributed to lower overall volumes at the intersections.

The Level of Service analyses of the study area intersections were not updated for 2016 existing conditions because of the generally consistent volume conditions compared to the 2003 volumes. It is concluded that the current traffic operations are similar to what were identified in the 2009 FSEIS because current volumes are also comparable to what they were in 2003. The difference in truck percentage may have a modest effect on the level of service results presented in the 2009 FSEIS for the AM peak hour, but the AM peak hour is generally not the critical hour for design. The difference in truck percentage during the PM peak hour is not substantial in terms of its effect on intersection capacity, as the resulting truck adjustment factor for calculating saturation flow in the capacity analysis is essentially the same.

A signal warrant evaluation was conducted for the intersection of Pine Street and Howard Street in 2011 to address concerns that were brought forward during the Act 250 process. The LOS analysis conducted for that engineering study identified that the LOS for the Howard Street approach was E in the AM peak hour and F in the PM peak hour. This is a change in LOS from the 2009 FSEIS analysis (D in the AM and E in the PM). However, the evaluation concluded that the conditions at the intersection did not satisfy the warranting criteria of the Manual on Uniform Traffic Control Devices (MUTCD) for signal control. The signal warrant study also evaluated conditions for installing a Pedestrian Hybrid Beacon (PHB) device and found that the applicable warranting criteria was also not met for this type of control.

The City replaced the traffic signal equipment at the intersection of Pine Street and Lakeside Avenue in 2016 as a separate effort by the City, to address maintenance issues, to maintain MUTCD compliance and to improve pedestrian access and safety. This equipment update provides traffic-actuated operations and was designed by the City to be compatible with the proposed improvements of the Project. Traffic analysis conducted for this interim design shows that the overall intersection Level of Service is B in the AM peak hour and C in the PM peak hour with the signal improvements. This is a change from the operations reported in the 2009 FSEIS for 2003 volumes, which were LOS A in the AM and LOS B in the PM. The factors associated with the change in level of service are higher traffic volumes on Lakeside Avenue, incorporating the westbound driveway access for Feldman's Bakery store into the signal control, and providing advance pedestrian phasing.

### **3.2.2 Rail Operations**

There have been no relevant changes to existing rail operations along the Project corridor since the 2009 FSEIS. Impacts to rail operations resulting from the Project are discussed in Chapter 4 of this Reevaluation.

### **3.2.3 Additional Transportation Services in the Area**

The following sections provide an update to the information provided in the 2009 FSEIS regarding transportation services.

#### **3.2.3.1 Existing Facilities**

- **Bus Service:** The City of Burlington is presently served by Green Mountain Transit (GMT), formerly known as Chittenden County Transportation Authority.
- **Downtown Transit Center:** The 2009 FSEIS identified the Downtown Transit Center as a planned facility to be constructed near Cherry Street and St. Paul Street. In 2016, the Downtown Transit Center was completed. The facility is located on St. Paul Street, between Cherry Street and Pearl Street. The facility is owned by Green Mountain Transit, however, Megabus, Vermont Translines and Greyhound will utilize the transit hub.

### 3.2.3.2 Planned Facilities

- Passenger Rail: The *Ethan Allen Express* passenger rail service, operated by Amtrak between New York City and Rutland, Vermont, is anticipated to be extended to Burlington by 2021.

## 3.3 Land Use and Socio-Economics

This section addresses changes in land uses and socio-economics in the Project area that have occurred since the 2010 ROD.

### 3.3.1 Current Land Use

The 2009 FSEIS described the apparent shift in land use from manufacturing to retail and office use along the Pine Street and Lakeside Avenue corridor. In general, this shift in development patterns in the South End is ongoing as the area continues to evolve from its heavy industrial and manufacturing past to industries such as technology, art and design, and small-scale retail uses. Several buildings in the South End, particularly on Pine Street and Lakeside Avenue, have been converted from industrial uses to commercial and retail spaces. Notable examples of development that has occurred since the 2009 FSEIS include the following:

- Dealer.com (Pine Street)
- Innovation Center (Lakeside Avenue)
- The Howard Center (Flynn Avenue)
- Champlain College (Lakeside Avenue)
- City Market Co-op (Flynn Avenue)
- Various Microbreweries (Flynn Avenue and Pine Street)

As stated in the 2009 FSEIS, a shift in land use from industrial to commercial typically results in increased automobile traffic and reduced commercial vehicle movements. However, there are still industrial uses along the Project corridor that will continue to attract commercial vehicle traffic. The Project will provide a suitable and efficient access route for this traffic, consistent with the purpose and need. In some instances, such as City Market, the traffic impact mitigation for the redevelopment was predicated on the construction of the Project to alleviate access and circulation for employees, customers and truck deliveries.

### 3.3.2 Land Use Restrictions

The deed restrictions and Institutional controls imposed by the EPA's 1998 Record of Decision for the Pine Street Barge Canal Superfund Site are described in depth in the 2009 FSEIS and remain in effect.

### 3.4 Land Resources

Land resources such as farmlands and woodlands, and earth resources are unchanged from the description provided in the 2009 FSEIS.

### 3.5 Water Resources

This section describes changes to water resources in the study area that have arisen since the completion of the 2009 FSEIS and the 2010 ROD. Water resources include wetlands, surface waters, groundwaters, floodplains, and wild and scenic rivers.

#### 3.5.1 Wetlands

Additional wetland delineations were performed in 2015-2016 for the purposes of renewing the Section 404 VT General Permit and Vermont Conditional Use Determination. A summary of the existing wetlands by class and size is shown in **Table 3-1**. Wetlands P and Q have emerged since the approval of the 2009 FSEIS due to the natural causes discussed below. A map of the wetlands in the Project area is attached in Appendix 5. These wetlands are described as follows:

##### Wetland P

This wetland occurs in a slight depression and does not appear to have an inlet. It is dominated by a forested community that does not closely resemble a community type listed in Thompson and Sorenson (2000), possibly due to its early successional stage, but is classified as red maple-black ash swamp (PFO1). There is a small opening dominated by shallow emergent marsh (PEM2).

The canopy of the forested wetland is dominated by quaking aspen (*Populus tremuloides*) with lesser occurrences of cottonwood (*Populus deltoides*) and American elm (*Ulmus americana*). The shrub stratum is well-developed and dominated by red osier dogwood (*Cornus alba*) with lesser occurrences of European buckthorn (*Rhamnus cathartica*), green ash (*Fraxinus pennsylvanica*) and meadowsweet (*Spiraea tomentosa*). The herbaceous stratum is dominated by jewelweed (*Impatiens capensis*), horsetail (*Equisetum arvense*), white avens (*Geum canadense*), tall buttercup (*Ranunculus acris*) and green ash. Riverbank grape (*Vitis riparia*) vines occur in low numbers. Hydrology indicators include surface water (A1), high water table (A2) and saturation (A3). The hydric soil indicators are depleted below dark surface (A11) and depleted matrix (F3).

The shallow emergent marsh has sparse shrub cover dominated by red osier dogwood and meadowsweet. The dense herbaceous stratum is dominated by sensitive fern (*Onoclea sensibilis*) with lesser occurrences of meadowsweet, jewelweed and tall buttercup. Hydrology indicators include surface water (A1), high water table (A2), saturation (A3) and FAC-neutral test. The hydric soil indicator is depleted below dark surface (A11).

Wetland Q

This small shallow emergent marsh (PEM1) formed, likely due to soil compaction, in a slight depression within a previously disturbed field. It is heavily invaded by reed canary grass and purple loosestrife. Hydrology indicators include surface water (A1), high water table (A2), saturation (A3) and FAC-neutral test (D5). The hydric soil indicator is depleted matrix (F3). A surface hydrology connection to nearby wetlands or streams was not observed during the delineation.

**Table 3-1: Existing Wetlands – Class and Size**

<b>Wetland Area</b>	<b>Vermont Wetland Class</b>	<b>2009 Approx. Wetland Size (acres)</b>	<b>2018 Approx. Wetland Size (acres)</b>
Wetland A	III	0.190	0.190
Ditch B	III	0.012	0.029
Ditch C/D	III	0.138	0.085
Wetland E	III	0.145	0.145
Wetland F	III	0.320	0.411
Wetland H/I	II	0.782 **	1.168 **
Ditch J	III	0.005	0.005
Wetland K	III	0.010	0.010
Wetland L	III	0.056	0.075
Wetland M	III	0.010	0.028
Wetland N	III	0.080	0.093
Wetland O	III	0.306	0.306
Wetland P	III	-	0.389
Wetland Q	III	-	0.065
Wetland W	III	-	0.040
Wetland Z	III	0.049	0.032
Ditch ZZ	III	-	0.024

\*\* Only 1.168 acres (50,878 square feet) of wetland were delineated based on anticipated Project limits. Previous estimates indicate that this wetland area encompasses approximately 13.3 acres (579,350 square feet).

### **3.5.2 Surface Waters**

There are no additional surface water resources in the Project area beyond those already described in the 2009 FSEIS. The surface waters identified in the Project area include Potash Brook and Englesby Brook which drain to Lake Champlain.

### **3.5.3 Groundwaters**

There are no changes to existing groundwater resources in the Project area since the approval of the 2009 FSEIS.

### **3.5.4 Floodplains**

Through the Federal Emergency Management Agency's (FEMA) flood hazard mapping program, FEMA identifies flood hazards, assesses flood risks and partners with states and communities to provide flood hazard and risk data to guide them to mitigation actions. FEMA's flood hazard mapping serves as the basis for the National Flood Insurance Program (NFIP) regulations and flood insurance requirements.

The most recent FEMA Flood Insurance Rate Map (FIRM) (Community Number 500032, Panel 0254 effective July 18, 2011) indicates that a portion of the Project area is within a Special Flood Hazard Area (SFHA), Zone A. This area coincides with the Potash Brook floodplain. Coordination with City of Burlington Department of Planning and Zoning is necessary to determine if a permit is required before construction or development begins within any SFHA to ensure that proposed projects meet the requirements of the NFIP and the community's floodplain management ordinance. The City of Burlington has adopted the SFHAs identified on the FEMA mapping by reference into its Comprehensive Development Ordinance and regulates development within these areas.

The 2009 FSEIS considered the FEMA mapping that was available at the time of writing which did not depict any SFHA in the Project area.

### **3.5.5 Wild and Scenic Rivers**

There are no wild and scenic rivers within the Project corridor.

## **3.6 Vegetation and Wildlife Resources**

This section describes any additional vegetation and wildlife resources and threatened and endangered species that have been encountered in the Project area since the 2009 FSEIS and 2010 ROD.

### **3.6.1 Vegetation and Wildlife Resources**

The vegetation and wildlife species within the Project area are generally unchanged since the 2009 FSEIS and the predominant land uses are similar. The description of vegetation and wildlife resources in 2009 FSEIS documents remains valid, except for some of the areas previously identified as early successional habitat that have matured into forests within the vacant land along the C-2 Section of the Project right-of-way.

### **3.6.2 Threatened and Endangered Species**

An updated list of threatened and endangered species was obtained on December 27, 2017 from the United States Fish and Wildlife Service (Appendix 1). The USFWS indicated that the Northern Long-eared Bat (NLEB) should be considered in any effects analysis for the Project. The Project complies with the Programmatic Biological Opinion Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions, dated January 5, 2016. The Project has also been screened for threatened and endangered species by Vermont Agency of Natural Resources (ANR). Correspondence with ANR (Appendix 1) confirmed that there are “no significant natural communities in the area.”

The ANR correspondence indicated that conservation measures for NLEB may be required if greater than one acre of tree clearing would be performed. Typical conservation measures are imposing time-of-year restrictions on tree cutting or performing acoustic surveys. The NLEB is listed as threatened on the federal level and endangered in the State of Vermont. According to USFWS, the NLEB roost singly or in colonies underneath bark, in cavities or in crevices of live and dead trees during the summer months. The USFWS has not designated a critical winter or summer habitat for NLEB and the ANR Natural Resources Atlas does not identify a known hibernaculum or documented summer habitat within a one-mile radius. The forested land within Project corridor is considered a potential summer habitat; acoustic surveys can be completed to determine the presence or absence of NLEB.

ANR also identified two Rare species of fish (mottled sculpin and rosyface shiner) existing at the mouth of Englesby Brook and one species (central mudminnow) in Potash Brook. None of the plant species in the Project area are listed as State Threatened or Endangered. The ANR correspondence indicated that there are sixteen Rare or Uncommon plant species in the Project area (Attached in Appendix 1). Most of the species have been found along the Lake Champlain shoreline but could occur elsewhere in the area. Winged loosestrife has been identified in the Barge Canal area along Pine Street. ANR indicated that an updated plant survey may be warranted in this area (see attached correspondence in Appendix 1). The proposed work on the western side of Pine Street consists of removing a underutilized rail spur and constructing a shared-use path along the western side of the street. This work will take place upland of the Barge Canal

area on previously disturbed ground. Therefore, it is not considered necessary to perform an intensive plant survey.

### **3.7 Historic and Archaeological Resources**

The Project area was previously surveyed to identify historic structures, districts and archaeological sites in conjunction with the 2009 FSEIS as well as prior environmental impact studies. This section describes any updated information regarding historic and archaeological resources in the Project area that has been considered since the 2009 FSEIS and that has not been previously evaluated in any of the preceding studies or historical surveys.

#### **3.7.1 Historic Resources**

The 2009 FSEIS presented an overview of historic resources within the Project study area. Since the study area has not changed, the analysis of historic structures and districts contained in the 2009 FSEIS remains valid.

#### **3.7.2 Archaeological Resources**

Since the Area of Potential Effect in regard to archaeological resources has not changed since the 2009 FSEIS, no additional archaeological investigations have been necessitated or performed since the completion of the 2009 FSEIS. The previous review conducted by the senior archaeologist for VTrans concluded that there were no anticipated archaeology concerns and that no further work was necessary to identify archaeological resources. As the Project has not been fundamentally altered, these findings are still considered valid.

### **3.8 Air Quality**

The State of Vermont is categorized as an attainment area for all of the United States Environmental Protection Agency (EPA) criteria pollutants (total suspended particulates, carbon monoxide, sulfur dioxide, nitrogen oxides, ozone and lead). This categorization has not changed since the 2009 FSEIS and 2010 ROD.

### **3.9 Noise Environment**

VTrans issued an updated noise analysis and abatement policy in conformance with the requirements set forth by FHWA Noise Standard at 23 CFR Part 722 on June 13, 2011. The noise analysis performed for the 2009 FSEIS is still considered valid. The VTrans' policy states that the date of public knowledge for a Federal-aid highway project is considered to be the date of the 2010 ROD for the Project. Therefore, noise analysis and abatement would not be required for new development or land use changes that occurred

subsequent to the ROD. Furthermore, the change in land usage from industrial to retail facilities would not represent a change in the Noise Abatement Activity Category as dictated by Table 1 to 23 CFR Part 772.

### **3.10 Public, Conservation and Recreation Land**

There are no additional publicly owned parks in the study area compared to those already listed in the 2009 FSEIS. The publicly owned parks in the study area are Baird Park, Lakeside Park, Callahan Park (South Park), Champlain Street Park, Perkins Pier, Smalley Park and City Hall Park. Lake Champlain is also a recreational resource.

### **3.11 Hazardous Materials**

The 2009 FSEIS identified the Pine Street Barge Canal Superfund site as the biggest contributing factor to hazardous materials in the Project area. Since the 2009 FSEIS, the Vermont DEC regulations for contaminants have evolved regarding the procedures for managing development soils and for establishing background concentrations for arsenic, lead, and polycyclic aromatic hydrocarbons (PAHs). The Vermont Investigation and Remediation of Contaminated Properties Rule (I-Rule) was adopted in July 2017 and dictates the procedural and substantive requirements on a responsible party and Agency for the cleanup of a site. The I-Rule requires a corrective action investigation and a public notice process consistent with Act 150. The I-Rule also requires that all sites leaving contamination in place have an Institutional control plan.

In anticipation of the adoption of the I-Rule, subsurface soil quality assessments performed in 2015 identified contaminant concentrations which in some cases exceeded the applicable soil screening values (SSVs) adopted by the State of Vermont. A Soil Management Plan (SMP) was preliminarily developed in order to outline a series of soil management strategies that will mitigate risks to human health and the environment. The SMP prescribes that soil with polycyclic aromatic hydrocarbon (PAH) and arsenic concentrations that exceed the applicable SSVs be managed as solid waste and disposed of at a certified landfill. In 2017, a Supplemental Soil Quality Assessment and Disposal Pre-Characterization report was prepared which focused on the portion of the Project area known to contain excessive levels of soil contamination. This report pre-characterized the soils on site by comparing them to the applicable soil screening values and thereby determining the appropriate management strategies.

### **3.12 Visual Setting**

The general visual characteristics of the Project area and sensitive visual receptors along each Project segment are unchanged since the completion of the 2009 FSEIS.

## **4. ENVIRONMENTAL CONSEQUENCES**

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### **4.1 Introduction**

The following sections address any updates to environmental impacts that are anticipated as result of design refinements as well as changes to the existing environment that have occurred since the completion of the 2009 FSEIS.

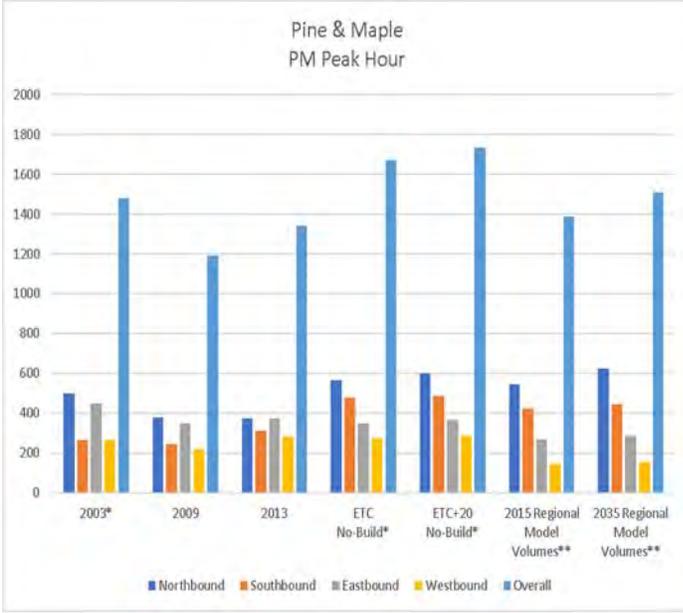
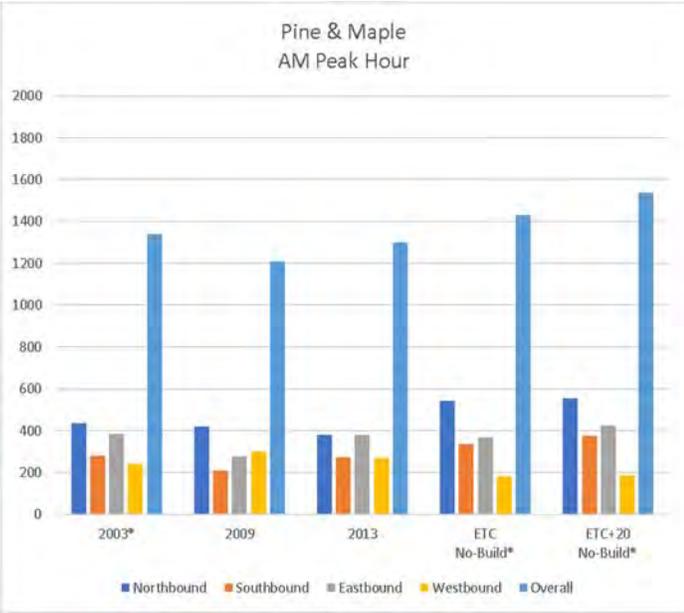
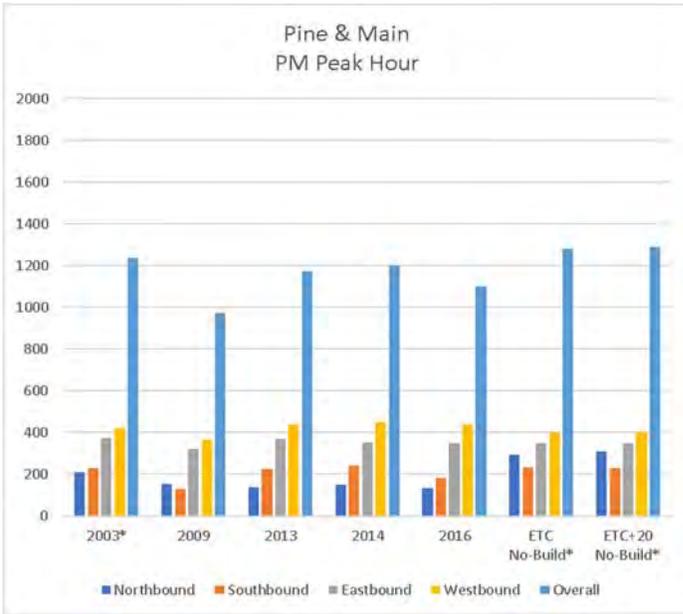
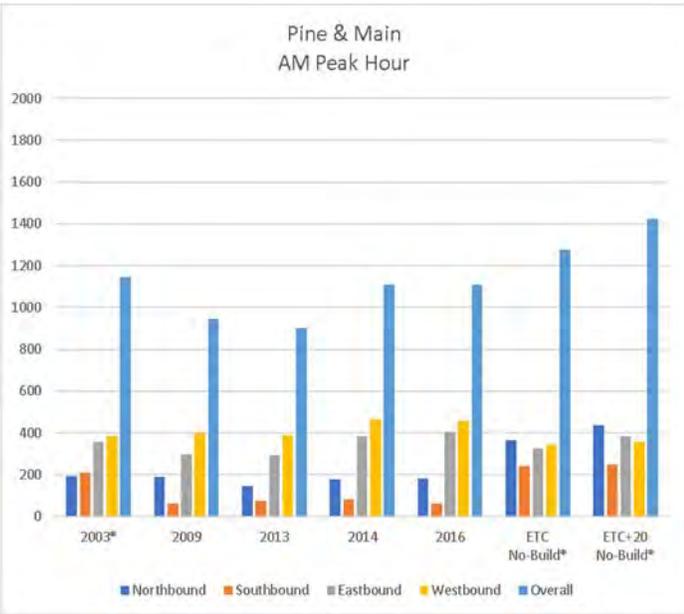
### **4.2 Transportation Systems Impacts**

#### **4.2.1 Traffic Operations**

The 2009 FSEIS was based on traffic forecasts that corresponded to a previously estimated time of construction (ETC) of 2008. The traffic forecasting work for the 2009 FSEIS was completed over the course of several years, concluding in 2005. The ground-truth refinements for the forecasting effort were based upon traffic data collected during the period from 1998 to 2003. At the time the traffic data were collected and the modeling was being prepared, the Parkway ETC was 2008, and the twenty-year post-construction date was 2028. The current Project schedule is for an ETC in 2019. Although the Project's construction schedule has been pushed out, the traffic data and forecasts utilized for the Project are still relevant. This is because actual traffic data collected in the Project area in recent years, as described in Section 3.2.1, shows that the modeling for the 2009 FSEIS used conservative growth assumptions, resulting in a higher forecast of traffic volumes than has actually occurred to date. Thus, traffic volumes have not yet reached the levels forecast for the 2008 ETC, making it appropriate to continue to use the 2008 forecast traffic volumes for the ETC of the Project. However, these design volumes are not so conservatively high as to affect the overall objectives of the Project or the elements of the design.

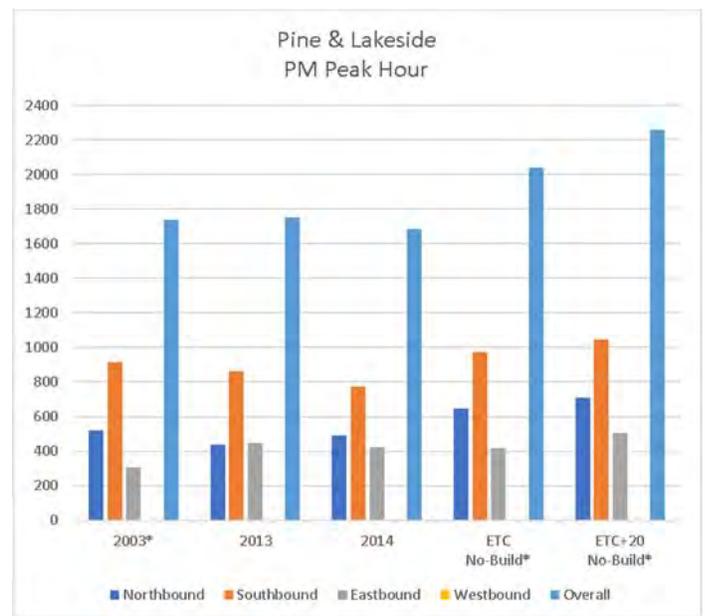
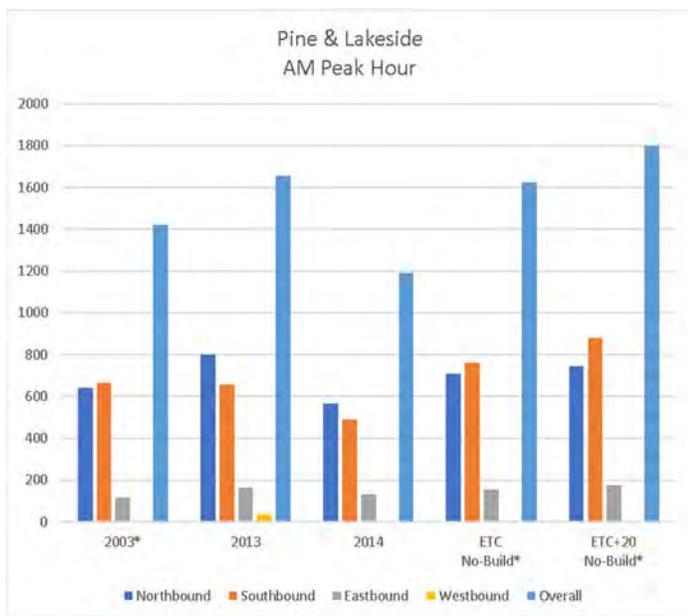
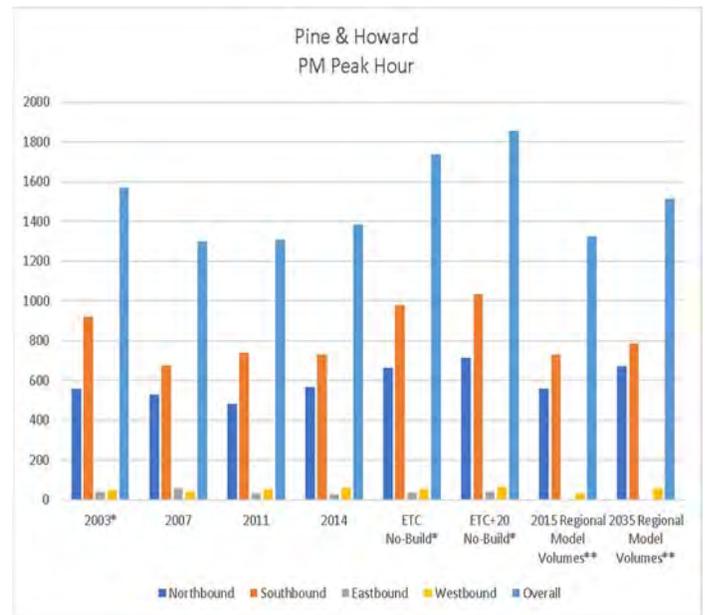
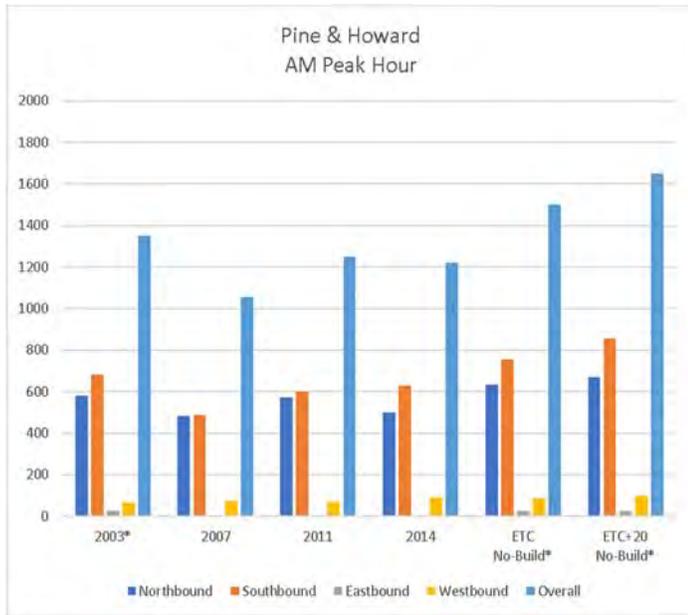
The traffic forecasts for the 2009 FSEIS were developed using the Chittenden County Transportation Model that was current at the time. These forecasts projected an average annual increase in daily (ADT) traffic along Pine Street of approximately 2.5 percent between 2003 and 2008, assuming the Project is not constructed (a total 12.5% increase). As described in Section 3.2.1, actual traffic volumes in the Project area have not grown as fast. The AM and PM peak hour traffic volumes at the five key intersections within the Primary study area are presented in Exhibit 4-1, showing the ETC and ETC+20 projections from the 2009 FSEIS in the context of the 2003-2016 volume trends. Traffic forecasts for the 2015 and 2035 conditions were also developed as part of the Railyard Enterprise Project (REP) Scoping/Planning and Environmental Linkages (PEL) Report. These forecasts are incorporated by reference where indicated in Exhibit 4-1.

# Exhibit 4-1 Primary Study Intersection Traffic Volumes



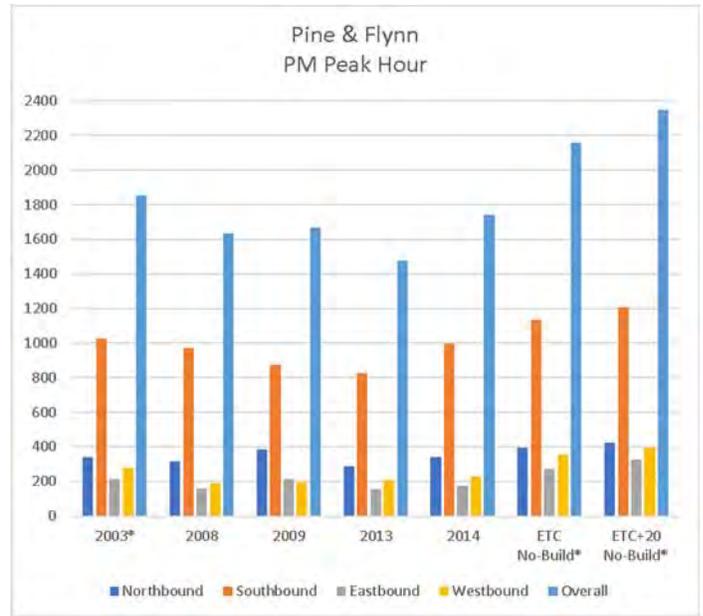
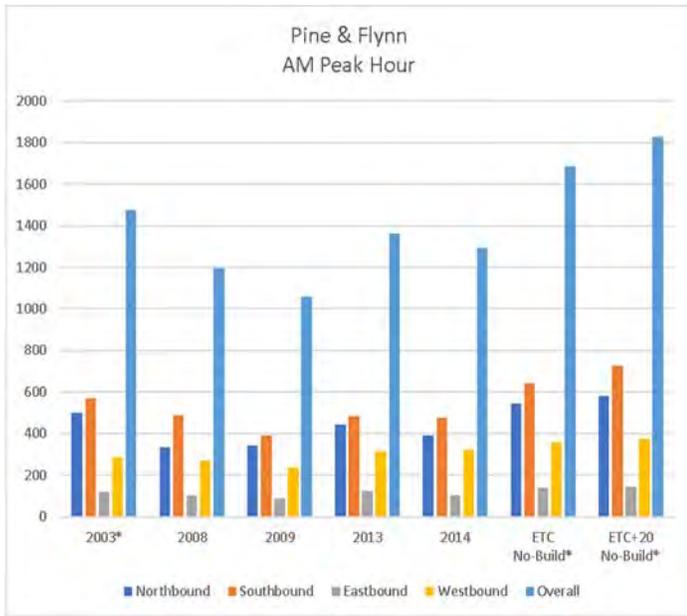
\* volumes from the Champlain Parkway 2009 FSEIS

\*\* volumes from the REP Scoping/PEL Report



\* volumes from the Champlain Parkway 2009 FSEIS

\*\* volumes from the REP Scoping/PEL Report



\* volumes from the Champlain Parkway 2009 FSEIS

Although the traffic volumes have not grown at the pace that was originally projected in the 2009 FSEIS, the use of these ETC and ETC+20 volumes are not unreasonably high for the purpose of assessing the design elements of the Project and the resulting traffic operations. The Project design has evolved to reflect contemporary ‘Complete Streets’ multimodal concepts, where vehicular capacity is not the paramount performance metric.

Statewide trends show that overall Annual Vehicle-Miles Traveled (AVMT) have increased by 1.8% over the period 2010-2016. The data also shows that VMT growth has been more significant in the urban areas of the state, where annual VMT has increased 15% over this period. Travel in the state’s urban areas represented about 29% of the total statewide VMT in 2016, compared to 25% in 2010.

**Table 4-1: Statewide Travel Trends**

**Annual Vehicle-Miles Traveled (AVMT)\***

**Vermont**

	2010	2013	2014	2015	2016
Rural	5,400	5,258	4,975	5,199	5,251
Urban	1,848	1,858	2,085	2,115	2,131
Total	7,248	7,116	7,060	7,314	7,382
% Urban VMT	25.5%	26.1%	29.5%	28.9%	28.9%
% Change	2010-2013		2010-2016		
Statewide	-1.8%		1.8%		
Urban	0.5%		15.3%		

\* millions

Sources: Table VM-2 (2010, 2013, 2014, 2015 and 2016) "Highway Statistics" series, Federal Highway Administration

The Chittenden County region is also anticipated to continue to grow. In June 2018, the CCRPC adopted the ECOS (Environment, Community, Opportunity, Sustainability) Plan 2018, a coordinated planning effort that integrated the Regional Plan, Metropolitan Transportation Plan (MTP), and Comprehensive Economic Development Strategy (CEDs) in one comprehensive plan. Demographic projections for the 2050 planning horizon project a 14% growth in population over this time (approximately 0.5% annual growth).

**Table 4-2: Chittenden County 2050 Population, Employment & Household Forecast**

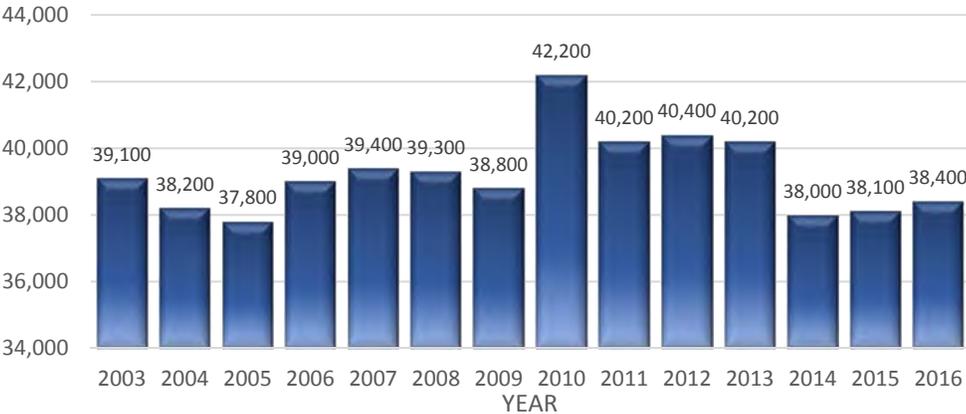
Demographics	2015	2050	% change
Population	161,382	183,172	+ 14%
Employment	135,511	182,688	+ 35%
Household	63,498	79,151	+ 25%

Source: ECOS Plan 2018, Main Document, ECOS Plan Priorities & Implementation, Forecast & Scenario Planning, Table 1, page 6

Employment is projected to grow at a faster rate than population, suggesting continued increases in peak-hour commuter travel demand to access jobs. As noted in the ECOS Plan, Chittenden County’s rate of single-occupant driving to work has been consistently in the range of 70-75% since 1990. Also considering carpools and vanpools, motor vehicles continue to account for most of the region’s work-based travel.

VTrans maintains a continuous traffic counter on I-189 that collects traffic data hourly for every day of the year. The count station has been in operation numerous years and provides a reasonable indicator of regional traffic changes in the Project study area because of its proximity. As shown in Exhibit 4-2, the daily volumes on I-189 have risen and fallen periodically between 2003 and 2016, with a 10% difference between the highest and lowest volume in this 14-year period. Over the past several years, the volumes have been modestly trending upward, but still remain lower than the peak recorded in 2010.

**Exhibit 4-2: I-189 Annual Average Daily Traffic (AADT)**



Data Source: VTrans Transportation Data Management System, 2018

The ECOS Plan’s transportation goal is “to provide accessible, safe, efficient, interconnected, secure, equitable and sustainable mobility choices for the region’s business, residents and visitors.” The Metropolitan Transportation Plan investments articulated by the ECOS Plan are:

- Maintenance & Preservation of existing transportation assets
- Address safety and localized roadway congestion
- Expand ITS
- Focus new transportation system investment on projects detailed on the MTP Project List
- Complete current TIP projects (including the Champlain Parkway Project)

- Areas planned for growth supported by investments in transit, walk/bike infrastructure, and TDM programs
- Promote shift from gas/diesel to electric or other non-fossil fuels transportation options
- Enhance passenger and freight rail infrastructure

The Project continues to be relevant and integral to these regional goals by completing a major component of the current TIP, expanding the roadway network to help address localized roadway congestion, providing ITS features within the traffic control system, enhancing rail infrastructure, and expanding and enhancing facilities for pedestrians and bicyclists.

The fact that traffic volumes have increased at a slower rate makes it appropriate to continue to use the previous ETC and ETC+20 volumes in the 2009 FSEIS as the ETC and ETC+20 traffic forecasts for the Reevaluation. Further, the fact that traffic increased at a slower rate than forecasted does not invalidate the results of the traffic analysis, it simply makes the traffic analysis a more conservative forecast of future conditions. One conclusion from the slower traffic growth is that if traffic continues to grow at a slower pace, the design life of the Project will effectively be extended.

#### **Traffic Operations Changes Since the 2009 FSEIS**

Based on the correlation of existing and projected volumes, traffic operations within the corridor are expected to be consistent with the analysis presented in the 2009 FSEIS, although actual LOS may be better with less vehicular delay through the horizon years of the Project if development and traffic growth does not occur as rapidly as was forecasted.

Several localized traffic control changes have been incorporated into the Project to integrate land use/development traffic that has occurred after the 2009 FSEIS was completed, and to address localized issues that arose during the Act 250 permitting process. These include:

- Champlain Parkway and Flynn Avenue: The traffic generated by the City Market development will increase traffic delay at the intersection from what was presented in the 2009 FSEIS. The development's mitigation plan addresses the impacts of the development on the transportation system.
- Lakeside Avenue and Pine Street: A minor commercial access driveway was incorporated as a fourth leg to the intersection, with signal control of the driveway access.

- Champlain Parkway and Lakeside Avenue: the traffic signal operations have been modified to include traffic signal control of the driveway access to No. 128 Lakeside Avenue (Innovation Center). The added phasing and time allocation for these movements reduces the overall LOS of the intersection, with several approaches operating at LOS E or F. The operations of this intersection will be monitored after construction as an Act 250 permit condition to optimize signal timings and traffic operations. There are no changes to roadway geometry, right-of-way limits or Project limits associated with this change.

Pedestrian activity in the Project corridor has increased as a result of development that has occurred since the 2009 FSEIS. This, along with added pedestrian/bicycle facilities incorporated into the Project are anticipated to result in more pedestrian crossing activity at the signalized intersections along C-2 Section and C-6 Section than was considered in the 2009 FSEIS. This increased pedestrian and bicyclist activity may contribute to higher vehicular delays than were presented in the 2009 FSEIS because more signal time will be allocated to the exclusive pedestrian phase.

The design refinements are not expected to result in additional impacts to traffic operations beyond those discussed in the 2009 FSEIS, or as noted above.

### **Other Reasonably Foreseeable Projects**

#### **Burlington Town Center Redevelopment**

The Burlington Town Center (BTC) redevelopment is a planned project to revitalize the existing retail mall for mixed use. This project is located at Bank Street, two blocks north of the Champlain Parkway Project's northern terminus at Main Street. The BTC plan involves reestablishing the connection of Pine Street between Bank Street and Cherry Street that was closed as part of the original mall construction. This reconnection will improve access and circulation within the City Center District. The Traffic Impact Study (TIS) prepared by the consultants for the developer of the BTC project assessed the impacts of traffic diversions associated with this re-established street connection in the context of the Champlain Parkway Project and found that there were no impacts that affect the design or operational performance of the Champlain Parkway Project.

#### **Railyard Enterprise Project**

The Burlington Railyard Enterprise Project (REP) is a City-initiated project that is separate from the Champlain Parkway Project. It has been planned to address multimodal safety, mobility and operational transportation issues and advance economic development opportunities, through new urban streets, in the Waterfront South Area of Burlington.

The REP project area is located adjacent to the Champlain Parkway's northern terminus in the Maple Street/King Street area of Pine Street. Key objectives of the REP<sup>2</sup> are:

- To support economic development opportunities within the project area which will be facilitated by the creation of a new street system;
- To facilitate multimodal connections between the light industrial/mixed use Pine Street neighborhoods with the Lake Champlain Waterfront;
- To enhance livability for the residents in the project area; and
- To improve access to the Burlington Railyard, a National Highway System (NHS) - designated intermodal facility.

The traffic study conducted for the REP Scoping/PEL Report was based on the 2009 FSEIS volumes from the Champlain Parkway Project, but also included a sensitivity analysis to reflect CCRPC's calibrated travel demand model projections for years 2015 and 2035. The REP study area also included intersections along Pine Street that are common to both projects, from King Street to Marble Avenue. Because of this foundation built on the Champlain Parkway 2009 FSEIS, the REP study provides an assessment of the cumulative influences of the Champlain Parkway and REP projects.

The CCRPC model used for the REP study was a model developed in 2013 calibrated to 2010 base year conditions. The travel demand model forecasts for years 2015 and 2035 included current land use projections developed from the ECOS Planning effort and information provided by the City of Burlington. These models also reflect the effects of other reasonably foreseeable transportation improvements that are programmed on the Transportation Improvement Program (TIP). The TIP includes the Champlain Parkway Project as well as a variety of spot safety/operations improvement projects, pedestrian and bicycle facility enhancements, and the intersection and interchange improvements comprising the Circumferential Highway Alternatives.

The CCRPC model forecasts of volumes along the northern section of the Champlain Parkway Project along Pine Street for years 2015 and 2035 are lower than were previously estimated for the 2009 FSEIS. The most notable difference is the forecast of the northbound and southbound through movement volumes on Pine Street at Maple Street and at King Street, where the 2009 FSEIS Build volumes have higher traffic projections than current modeling.

A core feature of the street network alternatives considered in the REP Scoping/PEL Report is a new street connecting Pine Street with Battery Street. There are three alignment variations of this concept that were identified for potential advancement through a future NEPA process, which received Burlington City Council support<sup>3</sup>. These

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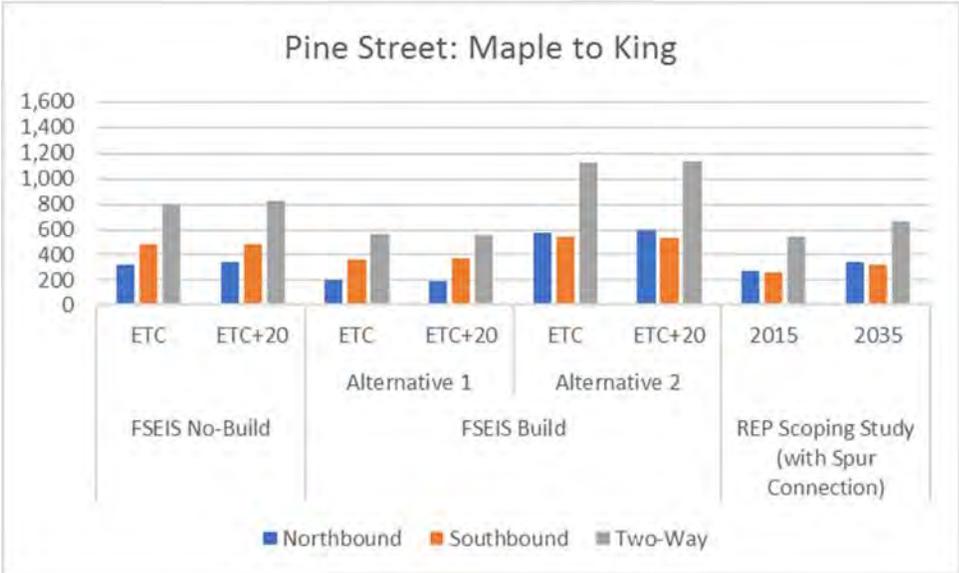
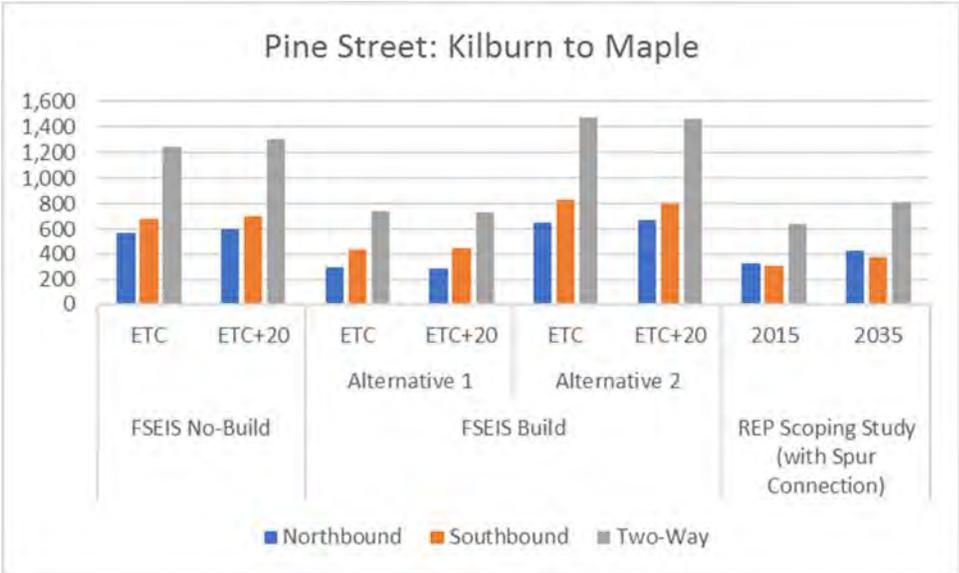
<sup>2</sup> Railyard Enterprise Project Final Scoping/PEL Report, RSG (2016); <https://www.ccrpcvt.org/our-work/transportation/current-projects/scoping/railyard-enterprise-project/>

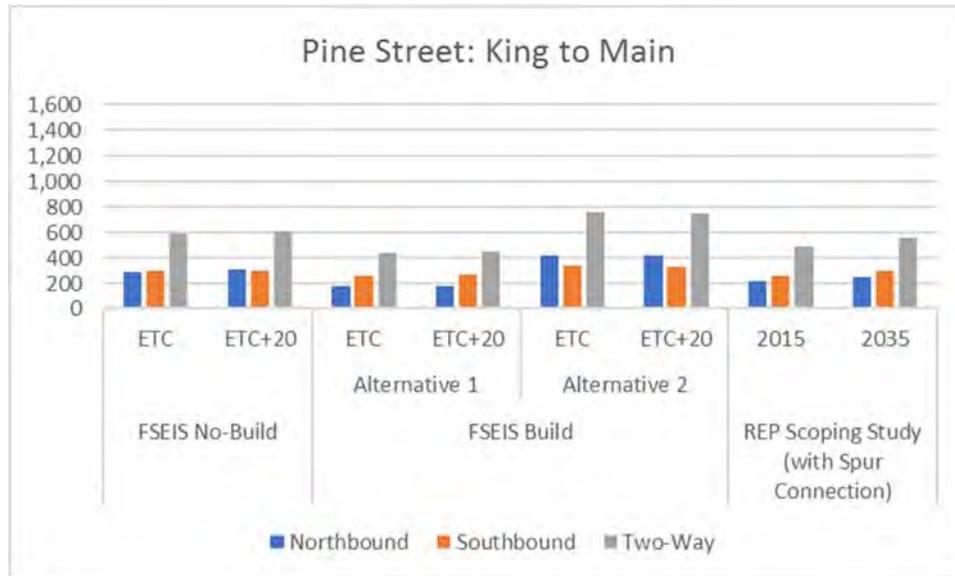
<sup>3</sup> *ibid*; Section 8.0, page 55.

alternatives are similar to the Build Alternative 1 concept considered in the 2009 FSEIS for the Champlain Parkway Project, but providing a less direct connection.

Exhibit 4-3 shows the forecasted traffic volumes along Pine Street (between Kilburn Street and Main Street) associated with the Champlain Parkway Project and those projected for the Railyard Enterprise Project. As can be seen from this exhibit, the projected design volumes for the REP project (using the current CCRP model) are very similar to the volumes that were projected for the Champlain Parkway Build Alternative 1 in the 2009 FSEIS.

## Exhibit 4-3 Pine Street Volume Comparison





The REP Scoping/PEL Report identifies the traffic operations for two intersections common to the Champlain Parkway Project: [1] Pine Street and Maple Street, and [2] Pine Street and King Street<sup>4</sup>. Table 4-3 shows the ETC+20 LOS analysis results for the PM peak hour at these intersections for the two Build alternatives considered for the Champlain Parkway Project and for the REP Build concept.

Table 4-3: LOS Summary ETC+20 PM Peak Hour

Intersection	Champlain Parkway		REP
	Build Alt 1	Build Alt 2	Build
Pine Street & King Street	B	C	A
Pine Street & Maple Street	C	D	B

It should be noted that the REP Build analysis is cumulative, including the Champlain Parkway Project. As shown from these analyses, the combined REP and Champlain Parkway projects will provide better traffic operations in the Maple-to-Main part of the corridor.

#### 4.2.2 Rail Operations

The removal of the Grocery Rail Spur and Pine Street Rail Spur will preclude any future use of the spurs for rail purposes since the City of Burlington acquired the rights associated with their use. However, this is only considered a minor impact since the rail spurs are currently underutilized.

<sup>4</sup> Railyard Enterprise Project Scoping/PEL Report – Appendix C, Table 1 (2016)

Removing the Pine Street Rail Spur will allow the construction of the shared-use path in its place. The VTrans' Historic Preservation Officer recommended a Section 4(f) de minimis impact finding in 2011 for the Project wherever minor amounts of property are to be acquired, including the Pine Street Rail Spur. The affected landowners, have been offered compensation for the relinquishment of their rail rights.

#### **4.2.3 Impacts on Additional Transportation Services in the Study Area**

- **Bus Service:** There are no additional impacts to the Green Mountain Transit (GMT) bus routes beyond those discussed in the 2009 FSEIS for the Selected Alternative. Since the 2009 FSEIS, improvements to the Project including bus shelters on Pine Street and transit signal priority provide an added benefit to bus service in the City.
- **Bicycle/Pedestrian Facilities:** The design refinements include the incorporation of bicycle pavement markings on C-2 Section and C-6 Section as well as the extension of the shared-use path on Pine Street. These changes will increase motorists' awareness of and safety for bicyclists. Curb extensions in conjunction with rectangular rapid flashing beacons on Pine Street will likewise increase pedestrian safety and provide additional crossing locations.

#### **4.2.4 Emergency Vehicle Access**

An emergency vehicle preemption system will be installed on the Champlain Parkway and Pine Street as part of the Project. The design refinements would not introduce additional impacts to emergency vehicle access beyond those discussed in the 2009 FSEIS.

#### **4.2.5 Parking**

Subsequent to the 2009 FSEIS, the proposed addition of buffered bike lanes on Pine Street between Kilburn Street and Maple Street would require prohibiting parking at all hours. A total of fourteen parking spaces would be lost between Kilburn Street and Maple Street. The residences and businesses on this portion of Pine Street would continue to have access to off-street parking.

#### **4.2.6 Mitigation**

No further mitigation measures are considered necessary for impacts to transportation systems. No mitigation is necessary to counterbalance the loss of parking on Pine Street between Kilburn Street and Maple Street. The residences and businesses on this portion of Pine Street currently have adequate off-street parking facilities; the loss of on-street parking is considered only a minor impact.

### **4.3 Land Use and Socio-Economic Impacts**

This section describes updates to the impacts to land uses and socio-economics compared to the 2009 FSEIS.

#### **4.3.1 Impacts to Neighborhoods**

The design refinements and changes to the existing condition would not result in additional impacts to neighborhood connectivity in the Project area since the 2009 FSEIS.

#### **4.3.2 Right-of-Way Impacts**

The removal of the Pine Street Rail Spur involved right-of-way acquisitions from the affected parcels. As discussed in Section 4.2, this process was completed in 2017 and the land occupied by the rail spur has been transferred to the City of Burlington. The Project has advanced through various phases of the right-of-way planning and acquisition process since the 2010 ROD. The 2009 FSEIS stated that the selected alternative would generally require small strip takings of land along the Project corridor. The final Right-of-Way Plans developed in 2018 are consistent with this statement; the rights necessary to construct the Project are in the nature of easements. The location of the easements is generally adjacent to the existing highway right of way and the vast majority of the Project is located within existing rights of way. The majority of temporary and permanent easements have been acquired as of the writing of this Reevaluation. The remaining easements that need to be acquired for the Project generally consist of construction easements and permanent easements for necessary utility improvements and the construction of the shared-use path.

### **4.3.3 Impacts on Properties with Land Use Restrictions**

The design refinements since the 2009 FSEIS include the relocation of the Maltex parcel driveway to align with Howard Street for improved traffic operations and safety. In addition, the proposed shared-use path extension will be constructed along the location of the former Pine Street Rail Spur on the Maltex parcel. This property is subject to the deed restrictions and other conditions imposed by the EPA's 1998 Record of Decision for the Pine Street Barge Canal Superfund Site. Coordination with EPA regarding these changes is on-going.

### **4.3.4 Consistency with Local and Regional Plans**

This section describes the applicable local and regional plans that have been developed since the 2009 FSEIS and includes an assessment of the Project's consistency with the recent planning efforts.

In the fall of 2010, the City of Burlington was awarded a Sustainable Communities Challenge Grant by the U.S. Department of Housing and Urban Development (HUD) which provided the City an opportunity to advance several development and economic growth initiatives. The result of these efforts to guide downtown and waterfront development resulted in "planBTV" which will guide sustainable growth over the next 10 to 20 years. The redevelopment known as planBTV represents the City's current approach to continuously updating the Municipal Development Plan; instead of preparing an overall update to the Plan every five years in accordance with state statute, the City's Department of Planning and Zoning is continuously developing various area-wide master plans or topic specific plans that update the corresponding chapters of the Municipal Development Plan. The City Council unanimously adopted planBTV: Downtown and Waterfront Master Plan on June 10, 2013.

In the spring of 2014, the City introduced the next step of the planBTV initiative with the commencement of "planBTV South End." The South End is defined as the area bounded by Maple Street, South Union Street/Shelburne Road, and the southern City boundary. The majority of the South End is comprised of the residential area surround the Enterprise Zoning District. The planBTV South End is a master plan that documents input gathered from the community regarding the South End neighborhood.

The Great Streets initiative is a culmination of the City of Burlington's planning and development effort to make new investments in the downtown's public infrastructure. The initiative will advance key projects envisioned by other City plans including planBTV. Great Streets will also establish downtown street standards that meet or exceed VTrans' or AASHTO's design standards where applicable and will guide the selection of streetscape elements, including street trees, stormwater infrastructure, paving materials, furnishings, lighting, and appropriate street and sidewalk widths. The

standards will apply to all streets in downtown Burlington from Pearl Street to Maple Street, and Battery Street to Union Street.

The City of Burlington planBTV Open Space Protection Plan (OSPP), adopted in March 2014, identifies open space goals and provides action steps to meet them. The OSPP considered input from the public, city boards and commissions and other stakeholders. The OSPP serves to identify under-served areas of the city and determines practical locations for open space protection.

The 2014 City of Burlington Climate Action Plan established a detailed and strategic framework for measuring, planning, and reducing greenhouse gas emissions and related climatic impacts. The plan set forth reduction goals and prioritized reduction actions or strategies.

The design refinements discussed in this Reevaluation are consistent with the ongoing planBTV municipal planning studies. Furthermore, planBTV presumes the construction of the Southern Connector/Champlain Parkway will be completed. The incorporation of bicycle accommodations and shared-use path on Pine Street and the improvements to pedestrian facilities would be consistent with the City's planning studies and improve safety and access to Lake Champlain, city parks and the Burlington Bike Path. The enhanced bicycle accommodations are consistent with the City's adoption of Complete Streets strategies as stated in their 2011 Transportation Plan. Improving trail connectivity is a stated priority in the OSPP. The extension of the shared-use path on Pine Street will serve to connect the Burlington Bike Path with the Howard-Kilburn Street neighborhood which is also a distinct location marked for access improvement in the OSPP.

#### **4.3.5 Mitigation**

Additional mitigation for land use impacts is not considered necessary. Coordination with EPA regarding the Project is currently on-going.

#### **4.4 Land Resource Impacts**

There are no additional impacts to farmlands, woodlands or earth resources compared to the 2009 FSEIS.

#### **4.5 Water Resource Impacts**

This section describes the changes and impacts to the Selected Alternative since the 2009 FSEIS.

#### 4.5.1 Wetland Impacts

The design refinements discussed in this Reevaluation do not introduce any new impacts to wetlands. Rather, new wetlands have either emerged since 2009 or existing wetlands have changed in size. A comparison of the impacts to wetlands between 2009 and 2018 is provided below. Mitigation for the impacts to wetlands will be made using the Ducks Unlimited - Vermont In-Lieu Fee (ILF) Program in accordance with permit conditions for the US Army Corps of Engineers Section 404 Vermont General Permit.

The 2009 FSEIS identified 20 individual wetland areas and noted impacts to wetlands A, H/I and N for the Build Alternative 2 (the Selected Alternative). Since the 2009 FSEIS, two additional wetlands (wetland P and Q) have been identified in the Project area and will be impacted. The Wetland Impacts Plan provided as Appendix 5 illustrates the proposed work and associated impacts.

Impacts to wetlands P and Q are as follows:

- Wetland P will be permanently filled to accommodate construction of the Southern Connector/Champlain Parkway and a stormwater detention pond.
- Wetland Q will be permanently filled for construction of the Southern Connector/Champlain Parkway roadway.

The proposed impacts have been evaluated and minimized to the greatest extent possible and are the minimum necessary to accomplish the goals of the Project.

Table 4-4 summarizes wetland impacts compared to the 2009 FSEIS.

**Table 4-4: Wetland Impacts Summary**

Wetland Area	Vermont Wetland Class	2009	2018
		Wetland Impact Area (acres)	Wetland Impact Area (acres)
Wetland A	III	0.190	0.190
Ditch C/D	III	0.000	0.003
Wetland H/I	II	0.473	0.415
Wetland N	III	0.031	0.031
Wetland P	III	-	0.389
Wetland Q	III	-	0.064
<b>TOTAL IMPACTS</b>		<b>0.694</b>	<b>1.092</b>

It should be noted that Table 4-4 indicates a reduction in impact area to Wetland H/I in the vicinity of Englesby Brook. The impacts to the Englesby Brook are now being considered separately as Stream Impacts (approximately 0.06 acre) and have been deducted from the total Wetland Impact to H/I. See the Wetland Impacts Plan attached as Appendix 5 for additional details.

#### **4.5.2 Surface Waters**

As stated in the 2009 FSEIS, the surface waters within the Project area include Potash Brook, Englesby Brook, the Pine Street Barge Canal, the Oakledge Tributary, and Lake Champlain. The design refinements described in this Reevaluation would not introduce any new impacts to any of these surface waters.

#### **4.5.3 Groundwaters**

The 2009 FSEIS concluded that there would be no impact to either Class III or Class IV groundwaters. Excavation depths are anticipated to be above the groundwater table. In general, based on information obtained from the 2004 groundwater investigation, groundwater flow is to the west toward Lake Champlain. Groundwater analytical results from this investigation for two wells located downgradient of the Project corridor between Pine Place and Maple Street, indicated there were exceedances above Vermont Groundwater Enforcement Standards for RCRA metals (arsenic, cadmium, chromium and lead) and one PAH (BaP). Therefore, though not anticipated, if groundwater is encountered during construction activities between Pine Place and Maple Street, it will be treated as potentially contaminated and will be infiltrated in-place or containerized. If groundwater is encountered during construction activities outside of this area, it is assumed clean and will be managed in accordance with the general erosion and sedimentation control plan for this Project.

#### **4.5.4 Floodplains**

As stated in Section 3.5.4, the 2009 FSEIS preceded the 2011 FEMA Flood Insurance Rate Maps which identify the Potash Brook floodplain as a Special Flood Hazard Area. The fill slopes from the proposed shared-use path along Potash Brook encroach upon the Special Flood Hazard Area (SFHA) mapped on the FEMA FIRM panel (Community Number 500032, Panel 0254 effective July 18, 2011). The total fill being placed in the SFHA is approximately 330 cubic yards. A hydraulic model for Potash Brook was developed to assess the potential floodplain impacts associated with this fill. The proposed condition hydraulic analysis indicates that the addition of fill will not result in increases in water surface elevations during the 100-year storm event. As such, the

Project is designed in accordance with the applicable FEMA and City of Burlington floodplain regulations. Based on this analysis and coordination with the City of Burlington Zoning Department, no mitigation is necessary for impacts to the SFHA associated with placing 330 cubic yards of fill within the 100-year floodplain.

#### **4.5.5 Wild and Scenic Rivers**

Similar to the 2009 FSEIS, there are no wild and scenic rivers designated within the Project area.

#### **4.5.6 Mitigation**

Mitigation for the impacts to wetlands will be made using the Ducks Unlimited - Vermont In-Lieu Fee (ILF) Program in accordance with permit conditions for the US Army Corps of Engineers Section 404 Vermont General Permit.

Mitigation for floodplain impacts will be determined through coordination with the City of Burlington Department of Planning and Zoning.

### **4.6 Vegetation and Wildlife Impacts**

As discussed in Section 3.6.2, the Northern Long-eared Bat (NLEB) is listed as an Endangered species in the State of Vermont and certain areas of the Project corridor are considered potential summer habitat. In accordance with ANR guidance, an acoustic survey will be performed since the Project will involve clearing between 1-2% of the forested habitat within a one-mile radius. Confirmation with ANR (Vermont Fish and Wildlife Department) will be completed and is ongoing. If the acoustic survey finds a presence of the NLEB, conservation measures for known, occupied summer habitats will be applied including time-of-year cutting restrictions, applying potential roost tree retention guidelines, and minimizing habitat and canopy fragmentation, as applicable and in accordance with ANR Regulatory Review Guidance for Protecting Northern Long-eared Bats and Their Habitats

The new plant species identified by ANR are not expected to be encountered or impacted by the Project. These plant species occur either along the Lake Champlain shoreline or within the Barge Canal area. The proposed shared-use path is located upland of these two resources and will not impact the Barge Canal area or Lake Champlain shoreline.

#### **4.7 Historical and Archaeological Resource Impacts**

There are no changes to historical and archaeological resources in the Project area and the design refinements will not result in adverse impacts to previously identified resources. The Grocery Spur and Pine Street Rail Spur are considered to be non-contributing elements; the partial removal of both rail spurs does not adversely affect the historic district.

#### **4.8 Air Quality Impacts**

The air quality analysis performed as part of the 2009 FSEIS remains valid. Changes to traffic operations as discussed in this Reevaluation will lessen the impacts to air quality evaluated in the 2009 FSEIS.

#### **4.9 Noise Impacts**

The noise analysis included in the 2009 FSEIS remains valid. Noise abatement or other mitigation is not considered necessary.

As stated in the 2011 VTrans Noise Analysis and Abatement Policy, as well as in 23 CFR Part 772, the date of public knowledge for a Federal-aid highway project shall be the date of the Record of Decision for the Project. Therefore, noise receptors developed after the January 13, 2010 ROD are not being considered for analysis or mitigation per FHWA and VTrans' noise abatement policies.

#### **4.10 Public, Conservation and Recreation Land Impacts**

There are no additional impacts to the publicly-owned parks or conservation and recreation lands identified in Section 3.10.

#### **4.11 Hazardous Materials Impacts**

The 2017 Supplemental Soil Quality Assessment and Disposal Pre-Characterization Report characterized soils within the Project area based on the applicable soil screening values. A Corrective Action Plan (CAP) has been prepared in accordance with the IRule, effective July 27, 2017 and in view of the VT DEC Procedure for an IWMEA Request for Storage or Use of development Soils in State and Local Highway Projects. This CAP describes the contamination on site and summarize the results of the previous soils investigations. It also discusses the necessary monitoring activities during construction operations and provide a summary of locations where contaminated soils are likely to be encountered. In accordance with the CAP soils will be disposed of at a certified facility, relocated within Chittenden County, reused on site or otherwise relocated without any restriction or additional handling. The CAP is attached as Appendix 2.

#### **4.12 Visual Impacts**

The design refinements and environmental updates described in this Reevaluation would not affect the visual impacts that were assessed in the 2009 FSEIS. The assessment of visual impacts contained in the 2009 FSEIS remains valid.

#### **4.13 Energy Impacts**

The design refinements and environmental updates described in this Reevaluation would not result in temporary or long-term increases in energy consumption. The assessment of energy impacts contained in the 2009 FSEIS remains valid.

#### **4.14 Construction Impacts**

The construction impacts associated with the Project are largely the same as stated in the 2009 FSEIS.

#### **4.15 Cumulative Impacts**

As stated in the 2009 FSEIS, the Project would be taking place in the context of the long-term trend of shifting land uses within the Project area from industrial to commercial uses. Section 4.3.4 of this Reevaluation discusses the relationship between the design refinements, specifically bicycle and pedestrian safety enhancements, with growth and development plans within the study area.

An assessment of concurrent and additional future projects in the study area identified subsequent to the 2009 FSEIS was undertaken to determine overlapping resource impacts that could result in cumulative impacts with the Project. The following additional projects (subsequent to the 2009 FSEIS) were considered for cumulative impacts under this evaluation:

- Railyard Enterprise Project (REP)/Planning and Environmental Linkages (PEL)
- Burlington Town Center Redevelopment
- Shelburne Street Roundabout

The REP Scoping/PEL Report includes the evaluation of new roadway alignment alternatives that would connect Pine Street to South Champlain Street and Battery Street. As discussed in Section 4.2.1, the REP is expected to improve traffic operations on Pine Street between Maple Street and Main Street when considered in conjunction with the

Southern Connector/Champlain Parkway Project. The REP Scoping/PEL Report also provides a cursory analysis of environmental impacts for each alternative but does not include special investigations that would occur within the NEPA process. Based on a review of the potential resource impacts described in the REP Scoping/PEL Report, the Southern Connector/Champlain Parkway project does not share any common resource impacts with the REP.

One aspect of the Burlington Town Center project involves restoring the connection between Pine Street and Cherry Street. As stated in Section 4.2.1, this reconnection would not impact the traffic design or operational performance of the Southern Connector/Champlain Parkway Project. Based on a review of the available Burlington Town Center project documents, there are no other common resource impacts with the Southern Connector/Champlain Parkway project that would result in a cumulative impact.

The Shelburne Street Roundabout project involves the reconfiguration of the intersection of Locust Street, Shelburne Street and South Willard Street. This intersection was included in the Secondary study area in the 2009 FSEIS. The Shelburne Street Roundabout is expected to improve local traffic operations at that intersection but would not affect traffic patterns or impact the design and traffic flow projections for the Southern Connector/Champlain Parkway project. There are no other potential common resource impacts between the Southern Connector/Champlain Parkway project and the Shelburne Street Roundabout project.

Since the 2009 FSEIS and 2010 ROD, additional private development projects in the study area have performed varying degrees of resource impact analyses that presume the completion of the Southern Connector/Champlain Parkway project. Consequently, any mitigation measures required under the respective projects is predicated by the completion of the Southern Connector/Champlain Parkway project. Examples include the City Market and Champlain College traffic impact studies which propose mitigation strategies that depend on the Southern Connector/Champlain Parkway to divert added traffic from local streets.

After researching and evaluating the resource impacts described in this Reevaluation, it was determined that the Southern Connector/Champlain Parkway Project will not result in any attributable cumulative impacts with any of the other past, present and reasonably foreseeable projects discussed in this section.

There are no additional adverse cumulative impacts expected as a result of the Project. Therefore, no mitigation is necessary or proposed.

#### **4.16 Relationship of Local Short-Term Uses versus Long-Term Productivity**

The relationship between short-term impacts and long-term productivity described in the 2009 FSEIS remains valid. The short-term uses of resources related to the Project are unchanged by the design modifications or other factors. The excavation of contaminated soil represents a short-term impact during construction due to the potential to generate dust or volatile organic compound levels in ambient air which could pose a health hazard to workers or the public. However, the excavation of this potentially hazardous material has been mitigated by a Corrective Action Plan (CAP) which details the necessary environmental oversight and proposes a remedial construction and maintenance plan in addition to establishing an Institutional control on the Project. The long-term benefits to productivity as stated in the 2009 FSEIS are still considered to be greater than short-term uses or impacts.

#### **4.17 Irreversible and Irretrievable Commitments of Resources**

The design refinements and environmental updates described in this Reevaluation would not alter the irretrievable and irreversible commitments of resources that were listed in the 2009 FSEIS. Accordingly, the analysis of these resources included in the 2009 FSEIS is still considered valid.

#### **4.18 Permit Requirements and Environmental Regulatory Compliance**

##### **4.18.1 Federal Permitting**

###### **Section 404 of the Clean Water Act**

The Section 404 VT General Permit expired on December 6, 2017. An application for the new VT General Permit was submitted in August 2018 and issued in October 2018.

##### **4.18.2 State Permitting**

###### **Vermont Operational Stormwater Discharge Permit**

The Operational Stormwater Discharge Permit has been amended to account for the differences in impervious area compared to the original design. The permit was renewed in 2018 and will expire on June 18, 2023.

###### **Public Water System Permit to Construct**

The Public Water System Permit to Construct was issued on July 30, 2018. The permit will expire on July 31, 2020.

### **Vermont Conditional Use Determination (CUD)**

The CUD was extended on September 8, 2016 for the Project. It is not expected that the design refinement discussed in this Reevaluation will carry any further implications for the CUD.

### **Individual (NPDES) Construction Stormwater Permit**

The Project plan will have to be resubmitted to VTDEC for formal approval of the plan change. This involves providing written justification for the changes and updating the Erosion Protection and Sediment Control (EPSC) plans to conform to Vermont Standards and Specifications for EPSC. The permit expires on April 15, 2019 and will have to be amended prior to the start of construction.

### **Vermont Water Quality Certification (WQC)**

The Section 401 WQC will need to be updated.

### **Vermont Act 250 Land Use Permit**

The application to amend the Project Act 250 permit was submitted on April 15, 2011. During 2011-2012 public hearings took place and approval was granted for the comprehensive amendment to the permit. Subsequently, several parties appealed the Act 250 approval and the City of Burlington reached settlements with all but one party.

The refinements discussed in this Reevaluation are not anticipated to be material changes to the issued Act 250 permit. However, a request for Jurisdictional Opinion (JO) by the District Environmental Coordinator will be processed to confirm this opinion or to identify if additional administrative actions or permit amendment is required.

#### 4.19 Summary of Resource Impacts

Table 4-5 lists the quantifiable resource impacts anticipated from the Selected Alternative as described in the 2009 FSEIS and the updated Selected Alternative as described in this Reevaluation.

**Table 4-5: Summary of Resource Impacts**

	ALTERNATIVES	
	2010 ROD Selected Alternative	2018 Updated Selected Alternative
Meets Project Purpose and Need	Yes	Yes
Displacements/Relocations	0	1*
Construction Cost Estimate	\$20,000,000	\$28,000,000
Number of New Railroad Crossings	1	0
Air Quality (Violations of Standards)	0	0
Farmland Impacts (acres impacted)	0	0
Wetland Impacts (acres impacted)	0.69	1.09
Floodplain Impacts (acres impacted)	0	0.41
Urban Vegetation/Wildlife Impacts (acres impacted)	0	4.90***
Threatened/Endangered Species Impacted	0	Potential***
Section 4(f) Recreation Sites Used	0	0
Section 4(f) Historic Resources Used	0	0
<b>HISTORIC DISTRICTS</b>		
Battery Street Historic District	No Adverse Effect	No Adverse Effect
Pine Street Historic District	No Adverse Effect	No Adverse Effect
Queen City Cotton Mill Historic District	No Adverse Effect	No Adverse Effect
Lakeside Historic District	No Adverse Effect	No Adverse Effect
Additional Archaeological Work Required?	No	No
Visual Impacts	Yes	Yes
Rivers/Streams (number crossed)	1	1
Superfund Site Issues	No	No**

\* Rail rights associated with the removal of Grocery Rail Spur and Pine Street Rail Spur have been extinguished. Small strips takings and temporary easements are not included in this table

\*\*Involvement with restricted parcels requires coordination with EPA

\*\*\*An acoustic survey will be performed to determine the presence of Northern Long-eared bats. 4.90 acres is the area of proposed clearing that corresponds to with potential summer habitat.

## **4.20 Mitigation Measures and Commitments**

The following bullet list is a summary of additional mitigation measures proposed subsequent to the 2009 FSEIS.

### **Traffic Operations**

No additional mitigation is proposed.

### **Rail Operations**

The previous owners of rail rights to the Grocery Rail Spur and Pine Street Rail Spur have been offered just compensation and have all relinquished their rail rights. In addition, the removal of the Pine Street Rail Spur will allow for the extension of the shared-use path in its place. Elimination of the Grocery Spur and Pine Street Rail Spur has no impact to rail operations.

### **Bus Service**

No mitigation is proposed for bus service.

### **Park and Ride Facilities**

No mitigation is proposed for Park and Ride facilities.

### **Bicycle/Pedestrian Facilities**

No mitigation is necessary for bicycle/pedestrian impacts. The design refinements discussed in Section 4.2.3 will provide a safety benefit to pedestrians and bicyclists.

### **Emergency Vehicle Access**

Subsequent to 2009 FSEIS, Emergency Vehicle Preemption was incorporated into the traffic signal design.

### **Impacts to Neighborhoods**

There are no anticipated impacts to neighborhoods, therefore no additional mitigation is necessary.

### **Right-of-Way Impacts**

Design refinements resulted in minor right-of-way impacts. Landowners were offered just compensation for the minor right-of-way impacts in accordance with VTrans' Right-of-Way Acquisition Policy.

### **Impacts to Properties with Land Use Restrictions**

Coordination with EPA is required.

### **Consistency with Local and Regional Plans**

The Project is still consistent with local and regional plans.

### **Wetland Impacts**

Additional wetland impacts will be mitigated by additional in-lieu payment to Ducks Unlimited.

### **Floodplain**

The Project would not result in increases in water surface elevations within the SFHA; therefore, no mitigation would be required.

### **Threatened and Endangered Species**

A habitat assessment and acoustic survey will be performed to determine the presence or absence of the Northern Long-eared Bat. Conservation measures such as time-of-year restrictions, applying roost retention guidelines, and minimizing habitat and canopy fragmentation will be applied as required by ANR.

### **Historic and Archaeological Resource Impacts**

The Project would not result in adverse impacts to historic or archaeological resources; therefore, no mitigation would be required.

### **Air Quality Impacts**

The Project would not result in adverse impacts to air quality; therefore, no mitigation would be required.

### **Noise Impacts**

No mitigation is proposed for noise impacts. Potential receptor locations developed since the 2010 ROD are not considered for analysis or mitigation in accordance with VTrans' and FHWA's policy.

### **Public, Conservation and Recreation Land Impacts**

No impacts to public, conservation and recreation lands are expected; therefore, no mitigation is required.

### **Hazardous Materials Impacts**

The adoption of the Vermont DEC I-Rule in 2017 resulted in the development of a Corrective Action Plan (CAP) to manage contaminated soils in the Project area.

### **Visual Impacts**

The 2009 FSEIS proposed mitigating visual impacts by providing landscaping. The design refinements would not require any additional mitigation for visual impacts.

**APPENDIX 9: 2020 CHAMPLAIN PARKWAY NEPA REEVALUATION**

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**State of Vermont**  
**Agency of Transportation**  
**Environmental Section**  
One National Life Drive  
Montpelier, VT 05633

Matthew Hake, Division Administrator  
Federal Highway Administration  
87 State Street, Montpelier, Vermont 05602

January 10, 2020

Attn: Kenneth R. Sikora, Environmental Program Manager  
Re: Burlington MEGC M5000 (1), Southern Connector/Champlain Parkway  
Reevaluation of the 2009 FSEIS.

Dear Mr. Hake:

The Burlington MEGC M5000 (1), Southern Connector/Champlain Parkway project, is located in the city of Burlington, Vermont. The project is a proposed transportation link located in the southwestern quadrant of the city of Burlington, Chittenden County, Vermont providing access between Interstate 189, U.S. Route 7 (Shelburne Street), and the City Center District (CCD).

A Record of Decision (ROD) was issued on January 13, 2010 based on a 2009 Final Supplemental Environmental Impact Statement (FSEIS). The FSEIS included a Section 106 determination of No Adverse Effect and a de minimis use of Section 4(f) resources. Since the completion of the FSEIS and the issuance of the ROD, there have been some minor revisions to the project. A Section 106 Amendment/ No Adverse Effect was issued on April 6, 2017 and an additional Section 4(f) De Minimis Determination was issued on May 5, 2017. The project is scheduled to be advertised for bids in 2020.

The 2010 Record of Decision was rescinded on October 11, 2019 in order to reevaluate the environmental justice impacts of the project. In accordance with 23 CFR 771.129(c) a re-evaluation of the FSEIS was prepared for the project. The analysis included in the Reevaluation was prepared in conformance with the EO 12898, new FHWA Order 6640.23A effective June 14, 2012 (canceling FHWA Order 6640.23 FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations dated December 2, 1998) and the FHWA Guidance memorandum on Environmental Justice and NEPA dated December 16, 2011.

An Environmental Justice (EJ) screening was completed within the study area. Although it was determined that none of the study area census tracts meet the criteria for low-income populations, Census Tract 10 was identified as a minority population given the substantially higher percentage of minority residents than the City or county. The residential portion of this census tract that is within the study area comprises much of the Maple and King Street neighborhood.

The City, FHWA, and VTrans have assessed whether all the Project's environmental impacts were adequately considered and if any of the impacts may rise to the level of significance. Based on this assessment, it has been determined that all other environmental resource impacts summarized in the 2009 FSEIS have been reassessed in the May 2017 Reevaluation associated with the rail crossings and the May 2019 Reevaluation of the overall Parkway project and the conclusions included in each of those Reevaluations remain valid.

However, because a new standard of practice related to EJ analysis exists today that wasn't applicable at the time the 2009 FSEIS was prepared, and because of the demographic changes in portions of the project study area, VTrans recommends that the preparation of a limited scope Supplemental EIS focused on EJ considerations in the Maple and King Street neighborhood.

The environmental justice considerations will include assessments of traffic impacts, work zone /construction impacts and any impacts on the safety performance of the roadway segments and intersections in the Maple and King Street neighborhood. If any disproportionately high and adverse effects on environmental justice communities are identified, FHWA may require the local project sponsor to implement additional environmental mitigation measures to avoid, minimize and mitigate the impacts as a condition of the project's NEPA approval. At the FHWA's discretion, VTrans and the local public agency may also be able to proceed with the proposed project even when there are remaining disproportionately high and adverse effects after taking the project benefits and mitigation into account, subject to the transportation decisionmaking protocol and the required FHWA determinations outlined in [the December 16, 2011 Guidance on Environmental Justice and NEPA](#).

Please find attached a copy of the referenced Re-evaluation of the 2009 FSEIS for project Burlington MEGC M5000 (1), Southern Connector/Champlain Parkway. Please contact Jeff Ramsey at (802) 917-4467 or [jeff.ramsey@vermont.gov](mailto:jeff.ramsey@vermont.gov) if you have any questions or are in need of additional information.

Respectfully,

Andrea Wright Digitally signed by Andrea Wright  
Date: 2020.01.10 13:02:42 -05'00'

Andrea Wright, P.E.  
VTrans ROW and Environmental Program Manager

Endorsement to the Vermont Agency of Transportation

**KENNETH R SIKORA**

Digitally signed by KENNETH R SIKORA  
Date: 2020.01.13 06:38:37 -05'00'

Concur

Kenneth R. Sikora Jr. FHWA Environmental Project Manager

[Date]

Attachments

cc: Wayne Davis, Project Manager  
Project File

**SOUTHERN CONNECTOR/CHAMPLAIN PARKWAY  
PROJECT MEGC-M5000(1)  
BURLINGTON, VERMONT**

**REEVALUATION OF  
2009 FINAL SUPPLEMENTAL ENVIRONMENTAL  
IMPACT STATEMENT**

JANUARY 2020

PREPARED FOR:

FEDERAL HIGHWAY ADMINISTRATION  
VERMONT AGENCY OF TRANSPORTATION  
CITY OF BURLINGTON

PREPARED BY:

CLOUGH HARBOUR & ASSOCIATES,  
LLP IN ASSOCIATION WITH  
STANTEC CONSULTING SERVICES, INC.

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**Appendices**

- A. Champlain Parkway Environmental Justice Analysis Progress Memo dated December 16, 2019
- B. September 26, 2019 Public Outreach Meeting Materials and Presentation
- C. May 2019 Reevaluation
- D. May 2017 Rail-crossings Reevaluation

## A. INTRODUCTION

The Southern Connector/Champlain Parkway project is being developed by the City of Burlington (City) in cooperation with the Federal Highway Administration (FHWA) and the Vermont Agency of Transportation (VTrans).

Although the 2005 DSEIS and the 2009 FSEIS each considered disproportionately high and adverse impacts on minority and low-income populations in accordance with Executive Order (EO) 12898, public outreach for that analysis was limited to the general public involvement associated with the NEPA process.

Since the 2009 FSEIS was approved, the FHWA memorandum *Guidance on Environmental Justice and NEPA (Guidance)* dated December 16, 2011 has been issued which advises on the process to address Environmental Justice (EJ) during the NEPA review including documentation requirements. As described in greater detail below, this analysis has been prepared to meet the Federal requirements defined by Executive Order 12898 – *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, dated February 11, 1994, as well as FHWA Order 6640.23A, effective June 14, 2012. This document also references the analysis and conclusions contained in the *Final Supplemental Environmental Impact Statement – Southern Connector/Champlain Parkway*, dated September 2009.

The City, FHWA and VTrans updated the demographic information using the U.S. Census Bureau’s American Community Survey (ACS) 2013-2017 5-Year Estimates and based on FHWA’s *Guidance* memorandum. The City, FHWA and VTrans performed targeted public outreach to minority and low-income populations in the Project study area in order to determine whether the conclusions reached in the 2009 FSEIS remain valid. The City, FHWA and VTrans determined that the EJ analysis and conclusions in the NEPA review needed to be reassessed.

The purpose of this Reevaluation is to assess if, how and to what extent additional environmental analyses need to be conducted to analyze any disproportionate impacts of the project on environmental justice communities.

All project design elements, the traffic forecasts and projected operations of the roadway, and resulting environmental resource impacts summarized in the 2009 FSEIS were reassessed in the May 2017 Reevaluation associated with the two post-2009 FSEIS rail crossings and the May 2019 Reevaluation of the overall Parkway project. The validity of that review and its conclusions are also assessed in this Reevaluation.

This Reevaluation is being conducted in accordance with 23 CFR Section 771.129.

## B. REGULATORY CONTEXT

This EJ analysis follows the procedures recommended in the FHWA *Guidance* memorandum as summarized below.

### **Executive Order 12898**

Executive Order 12898 - *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* – directs Federal agencies to “achieve environmental

justice by identifying and addressing disproportionately high and adverse human health and environmental effects including the interrelated social and economic effects of their programs, policies, and activities on minority populations and low-income populations in the United States.”

### **FHWA Order 6640.23A**

FHWA Order 6640.23A effective June 14, 2012 cancels FHWA Order 6640.23 FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations dated December 2, 1998. FHWA Order 6640.23A specifically details the FHWA’s responsibilities in complying with the Executive Order as well as Title VI of the Civil Rights Act of 1964 (Title VI). Under Title VI, FHWA managers and staff must administer programs in a manner to ensure that no person is excluded from participating in, denied the benefits of, or subjected to discrimination under any program or activity of FHWA because of race, color, or national origin. Under EO 12898, FHWA must administer their programs to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of FHWA programs, policies, and activities on minority populations and low-income populations. When determining whether an action will have a disproportionately high and adverse effect, FHWA will consider mitigation and enhancement measures and potential offsetting benefits to the affected minority and/or low-income population. In determining whether a mitigation measure or alternative is “practicable”, the social, economic (including costs) and environmental effects of avoiding or mitigating the adverse effects will be considered.

### **FHWA Guidance on Environmental Justice and NEPA**

The information contained in FHWA memorandum *Guidance on Environmental Justice and NEPA (Guidance)* dated December 16, 2011 advises on the process to address EJ during the NEPA review, including documentation requirements. The *Guidance* defines the process for identifying minority populations and low-income populations, documenting public participation, and identifying disproportionately high and adverse effects. For the purposes of EJ analyses, the FHWA defines minority populations as: Black, African-American or of African descent, of Hispanic or Latino origin, Asian-American, American Indian, Alaskan Native, Native Hawaiian or Pacific Islander. The FHWA uses the Department of Health and Human Services (HHS) poverty guidelines to define low-income populations. The *Guidance* directs the agency to use localized census tract data and other relevant information sources to list any readily identifiable groups or clusters of minority or low-income persons in the EJ study area. Small clusters or dispersed populations should not be overlooked. The *Guidance* also directs FHWA to include a discussion of major proactive efforts to ensure public participation, the views of the affected population(s), and steps being taken to resolve any controversy that exists. Lastly, the *Guidance* provides a step-by-step procedure for summarizing beneficial and adverse effects, comparing impacts on the minority and non-minority population, and consideration of mitigation measures if necessary.

## C. METHODOLOGY

In conformance with the EO 12898, new FHWA Order 6640.23A and the new FHWA *Guidance* memorandum, the 2009 analysis was reviewed and compared to more recent data from the 2013-2017 ACS data to determine if there are any readily identifiable groups of minority and/or low-income persons who live in the Project study area. The assessment involved four basic steps:

1. Identify the study area to be considered for EJ screening;
2. Compile race and ethnicity and poverty status data for the study area and identify minority and low-income communities;
3. Evaluate if potential benefit and/or adverse effects on minority and low-income population exist as a result of the Project; and
4. Identify and address if potentially disproportionately high and adverse effects on minority and low-income populations exist after mitigation of adverse effects. This includes comparing high and adverse effects on the minority and low-income population with the non-minority population within the study area to determine if there is a disproportionately high and adverse effect.

### **2009 FSEIS Identification of the Old North End Enterprise Community (Including a Portion Maple and King Street Neighborhood)**

The 2009 FSEIS identified the greater Old North End Enterprise Community as an area characterized by “pervasive poverty, high unemployment, and general distress”. The Empowerment Zone Program consists of three U.S. congressional designations – Renewal Communities, Empowerment Zones and Enterprise Communities. This program allows businesses operating within economically distressed communities to receive tax incentives and grants from the federal government. It should be noted that the 2009 FSEIS misidentified the Old North End as an Enterprise Community. The Old North End was re-designated as a Renewal Community in 2002. More accurately, Census Tracts 3, 4, 5 and 10 in Chittenden County are currently designated as a Renewal Community by the U.S. Department of Housing and Urban Development (HUD). A portion of the Maple and King Street neighborhood is in the Old North End Renewal Community.

### **2019 Identification of Minority and Low-Income Populations**

For this analysis, the latest (2010) census data, supplemented with the ACS 2013-2017 5-Year Estimates, was used to identify potential areas of minority populations. The ACS 5-Year Estimates for household income were compared to the HHS guidelines to identify low-income populations.

As the demographics of Burlington have been changing and the data from the latest Census (2010) is nine years old, the ACS provides the most recent and reliable data. Since Burlington’s population is relatively small, the data is only available at the census tract level. Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people. As seen on Figure 2: Study Area Census Tracts (See Appendix A Champlain Parkway Environmental Justice Analysis Progress Memo dated December 16, 2019), eight census tracts are fully or partially within the study area: Census Tract 5, Census Tract 6, Census Tract 8, Census Tract 9, Census Tract 10, Census Tract 11, Census Tract 33.04, and Census Tract 39. The majority of the study area is within Census Tracts 8, 9, 10, and 11.

## Minority Populations

For the purposes of EJ analyses, new FHWA Order 6640.23A defines minority populations as: Black, African-American or of African descent, of Hispanic or Latino origin, Asian-American, American Indian, Alaskan Native, Native Hawaiian, or Pacific Islander. The percentage of minority communities in the Burlington City area and in study area census tracts is shown on Figure 3: Minority Population (See Appendix A Champlain Parkway Environmental Justice Analysis Progress Memo dated December 16, 2019).

The Council on Environmental Quality's (CEQ) 1997 *Environmental Justice Guidance Under the National Environmental Policy Act* provides annotated guidance for complying with EO 12898. The CEQ Guidance states that a minority population should be identified where either: (a) the minority population of the affected area exceeded 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

Census Tract 10, comprising much of the Maple and King Street neighborhood, identified as an EJ community in the 2009 FSEIS, has a notably higher percentage of minority residents than the City average, the community of comparison for the purposes of this analysis. As shown in Figure 3: Minority Population (See Appendix A Champlain Parkway Environmental Justice Analysis Progress Memo dated December 16, 2019), Census Tract 10 has a 24.9% minority population compared to the 15.1% citywide average. Considering the relatively small population in Burlington and the demographics of Chittenden County, this is considered a meaningfully greater minority population. Therefore, the Maple and King Street neighborhood is considered an EJ community based on the percentage of minority residents.

Each census tract within the study area has at least one minority population that exceeds the City average for that population as shown on Table 1: Race and Ethnicity (See Appendix A Champlain Parkway Environmental Justice Analysis Progress Memo dated December 16, 2019). Census Tract 10 has a substantially higher minority population. The residential portion of this census tract that is within the study area is part of the Maple and King neighborhood. Four census tracts have minority populations that exceed the total citywide percentage of minority residents (Census Tracts 6, 8, 10, and 11). Three of the four tracts (Census Tracts 6, 8, and 11) are within one percent of Burlington's overall minority population. Therefore, for this analysis none are considered meaningfully greater than the minority population for the City of Burlington as a whole.

In 2018 U.S. Census data made available in December 2019, the percentage of minority residents in the Maple and King Street neighborhood is only marginally higher than the citywide average. However, given the meaningfully greater percentage of minority residents there in prior, yet still recent, census data, it has been determined that the Maple and King Street neighborhood will be considered to be a minority population for the purposes of the project's EJ analysis.

## Low-Income Populations

To identify low-income populations, FHWA uses the HHS poverty guidelines. Based on these guidelines, none of the study area census tracts meet the criteria for low-income populations.

None of the census tracts in the study area meet the HHS poverty guidelines on Table 3: Median Household Income by Household Size (See Appendix A Champlain Parkway Environmental

Justice Analysis Progress Memo dated December 16, 2019). Therefore, they are not considered low-income communities for FHWA EJ analyses.

#### **D. PUBLIC PARTICIPATION**

EO 12898 requires Federal agencies to work to ensure greater public participation in the decision-making process. Furthermore, the new FHWA Order 6640.23A directs FHWA to identify and avoid discrimination and disproportionately high adverse impacts to minority and low-income populations by providing targeted public involvement opportunities and considering the results thereof, including providing meaningful access to public information concerning the human health or environmental impacts and soliciting input from affected minority populations and low-income populations in considering alternatives during the planning and development of alternatives and decisions.

##### *Environmental Justice Outreach*

The public involvement activities for the present EJ analysis have been guided by EO 12898, new FHWA Order 6640.23A and the FHWA *Guidance* memorandum. The primary goal of the targeted public outreach activities described below was to inform the affected community about the Project and seek input on related transportation and environmental issues. As the above analysis concludes, the Maple and King Street neighborhood, located in Census Tract 10, is the only EJ population within the study area.

The City, FHWA, and VTrans conducted a targeted public outreach meeting on September 26, 2019. To ensure equal engagement of the minority community, the meeting announcement was translated into Bhutanese-Nepali, Swahili, Somali (Mai-Mai), Burmese, and French. Fliers were mailed directly to residents and City staff went door-to-door distributing fliers. The targeted public outreach meeting was hosted at City Hall, a well-known public landmark that is American Disability Act (ADA) accessible and within walking distance (i.e. two blocks or approximately 0.3 mile) of the Maple and King Street neighborhood. In addition to providing the meeting announcement in multiple languages, interpreter services were made available at the targeted public outreach meeting in the languages identified as being predominant in the minority community. The targeted public outreach meeting allowed the attendees to review displays depicting the proposed Project, view a Project overview presentation provided by the City's design consultant, and submit verbal or written comments. Written comments were also accepted via mail and a specific project email address until October 10, 2019. The Project team including the City's, FHWA's and VTrans' staff were available at the informational open houses before and after the presentation to discuss the Project with attendees.

Please refer to Appendix B for the September 26, 2019 public outreach meeting materials and presentation.

**E. THE NEED FOR ADDITIONAL ENVIRONMENTAL ANALYSIS OF DISPROPORTIONATE IMPACTS ON MINORITY AND LOW-INCOME POPULATIONS**

The new FHWA Order 6640.23A defines a disproportionately high and adverse effect on minority and low- income populations as an adverse effect that:

1. Is predominantly borne by a minority population and/or a low-income population; or
2. Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

Because a new standard of practice related to EJ analysis exists today that wasn't applicable at the time the 2009 FSEIS was prepared, and because of the demographic changes in the study area subsequent to the 2009 FSEIS, it has been determined that a limited scope Supplemental EIS focused on EJ aspects would be appropriate in order to advance the Project.

While the Southern Connector/Champlain Parkway project is expected to have limited footprint impacts in the Maple and King Street neighborhood, the project will increase traffic volumes on Pine Street north of Lakeside Avenue, including the Maple and King Street neighborhoods, when compared with the no-build alternative.

Increased traffic can affect mobility, vehicular and pedestrian/bicyclist safety, noise levels, and air quality. These traffic impacts, and the mitigation that has been proposed, and any impacts on the safety performance of the intersections and the roadway segments that go through the environmental justice community will be analyzed during the supplemental NEPA review. Temporary construction impacts in the Maple and King Street neighborhood will also be considered.

The supplemental NEPA review will take place between January and April 2020, and there will be additional opportunities for public involvement.

## **F. REEVALUATION OF OTHER RESOURCE IMPACTS IDENTIFIED IN 2009**

All other project design elements and resulting environmental resource impacts summarized in the 2009 FSEIS were reassessed in the May 2017 Reevaluation associated with the two post 2009 FSEIS rail crossings (See Appendix D May 2017 Rail-crossings Reevaluation) and the May 2019 Reevaluation of the overall Parkway project (See Appendix C May 2019 Reevaluation).

No further project changes occurred. The conclusions from the 2009 FSEIS remain valid.

## **G. CONCLUSION**

The analysis included in this Reevaluation was prepared in conformance with the EO 12898, new FHWA Order 6640.23A effective June 14, 2012 (canceling FHWA Order 6640.23 FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations dated December 2, 1998) and the FHWA Guidance memorandum on Environmental Justice and NEPA dated December 16, 2011.

An EJ screening was completed within the study area. Although it was determined that none of the study area census tracts meet the criteria for low-income populations, Census Tract 10 was identified as a minority population given the substantially higher percentage of minority residents than the City or county. The residential portion of this census tract that is within the study area comprises much of the Maple and King Street neighborhood.

The City, FHWA and VTrans have assessed whether all the Project's environmental impacts were adequately considered and if any of the impacts may rise to the level of significance. Based on this assessment, it has been determined that all other environmental resource impacts summarized in the 2009 FSEIS have been reassessed in the May 2017 Reevaluation associated with the rail crossings and the May 2019 Reevaluation of the overall Parkway project and the conclusions included in each of those Reevaluations remain valid.

Because a new standard of practice related to EJ analysis exists today that wasn't applicable at the time the 2009 FSEIS was prepared, and because of the demographic changes in the study area subsequent to the 2009 FSEIS, it has been determined that a limited scope Supplemental EIS focused on EJ aspects would be appropriate in order to advance the Project.