

# Broadway Corridor Study

## Public Meeting

December 11, 2014



# Agenda

- Welcome/ Introductions - 5 minutes
- The Project - 10 minutes
  - Study Objective
  - Schedule
  - Scope Summary
- Existing Conditions – 10 Minutes
- Break-Out Groups – Issues / Opportunities – 30 Minutes
- Break-Out Groups Summaries – 30 Minutes
- Next Steps – 5 Minutes



# Introductions

<u>Member</u>	<u>Organization</u>
Dana Wardwell	Public Works Director
John Theriault	City Engineer
David Gould	Planning Officer
Mark Hathaway	Bangor Police
Andrew Allen	MaineDOT
Rob Kenerson	BACTS
Dianne Rice	BACTS
Kevin Schroeder	Schroeder's Tax Services
Ron Lydick	McDonalds Restaurant
Tim Doody	Broadway Shopping Center
Robert Kilpeck	Husson University
Tom Warren	Husson University
Per Garder	Bangor Resident
Wendy Chadwick	Bangor Resident-230 Falvey Street
Greg Edwards	Bangor Resident-91 Pearl Street
Kierie Piccininni	Bangor Resident- 40 Market Street
Susan Slick	Bangor Resident-782 Broadway



# Purpose Statement / Objective

**The objective of this study is to develop a Traffic System Management Plan to ensure that the following will allow Broadway to operate at an acceptable level of service through 2025:**

- (1) Preserve existing roadway capacity over the long term to facilitate through traffic movements and minimize congestion, while at the same time providing safe vehicular access to new and existing developments along Broadway; and
- (2) Maintain the functional integrity and safety of the corridor, while accommodating the public and private needs for access to adjacent land parcels. In developing the plan, the consultant will utilize accepted engineering standards to address such items as:
  - The frequency and spacing of intersecting streets and private driveways;
  - The location, spacing, timing and coordination (for progressive two-way traffic flow) of existing and future traffic signals; the location and design of turning lanes;
  - Channelization, or other turning movement controls;
  - Identification of current levels of service and development of access management standards (which may include minimum sight distance requirements, corner clearance requirements, separation standards, etc.)





# Project Schedule

2014	
September 1	Notice to Proceed
September 1	Begin Data Collection
October 14	Kick-Off Meeting with City/BACTS
November 17	Complete Existing Conditions Technical Memorandum
November 20	Advisory Committee Meeting #1 to Prepare for Public Meeting and Review Findings of Existing Conditions TM
December 11	Public Meeting #1
December 11	City/BACTS Meeting to Review Future Trend Analysis Methods
2015	
January 15	Complete Future Trend Analysis TM
January 22	Advisory Committee Meeting #2 to Review Future Trends Analysis and Review Possible Improvements Strategies
January 26-30	Meet with Businesses and Property
February 19	City Staff/BACTS Meeting To Review Improvement Scenarios for Analysis
March 13	Submission of Draft Transportation Improvement Plan
March 26	Advisory Committee Meeting #3 to Review the Draft Transportation Improvement Plan and Prepare for Public Meeting #2
April 9	Public Meeting #2 to Present the Draft Transportation Improvement Plan
April 16	Advisory Committee Meeting #4 to Review Public Meeting Feedback
April	Present Plan to City Boards
May	Complete Final Transportation Improvement Plan



# Study Scope of Work

## TASK 1A – DATA COLLECTION

- Base Mapping
- Review of Documents
- Conduct a Physical Roadway Inventory -
- Assemble All Existing Traffic Volume Counts in the Area
- Obtain Crash Data from MaineDOT
- Obtain Policies
- Inventory of Built Forms
- Inventory of Land Uses
- Land Use Pattern Mapping
- Review of Standards



# Study Scope of Work

## TASK 1B – EXISTING CONDITIONS ANALYSIS

- Existing Transportation Performance Analysis
- Access Management
- Pedestrian Facility Analysis
- Bicycle Facility Analysis
- Identification of Nodal Pedestrian Sheds to Reinforce and Encourage Walkable and Mixed-Use, Interconnected Neighborhoods
- Critical Review of Existing Zoning and Standards
- Opportunities and Constraints Mapping

# Study Scope of Work

## TASK 2 – IDENTIFICATION OF FUTURE TRENDS AND NEEDS

### ■ Future Traffic Volumes

- BACTS Model
- Trends in land use, zoning and rates of development
- Expected major traffic generators
- Overall traffic growth and major roadway improvements
- We will review:
  - Short-Range Transportation Improvement Programs
  - Planned Development/Redevelopment Activity
  - Bangor I-95 Corridor Study
  - Long-Range Transportation Plans
  - Community Development Plans
  - Husson University Campus Plan

### ■ Future Traffic Operations Assessment



# Study Scope of Work

## TASK 3/4/5 – TRAFFIC SYSTEM MANAGEMENT PLAN/TRANSPORTATION IMPROVEMENT PLAN

- Evaluate existing conditions and projected future needs (2020 and 2025) for the purpose of developing a Traffic System Management Plan.
  - Evaluation of the existing roadway and traffic management systems to handle existing and future traffic demands up to 2025
  - Evaluation of potential options and recommended traffic management system upgrades
  - Planning estimate of costs for potential future traffic management system upgrades
- Develop Transportation Improvement Plan
  - Develop necessary short-term and long-term improvements in sufficient detail for them to develop comprehensive cost estimates
  - Identify any sensitive land areas
  - Recommend how each improvement interfaces with the Maine Department of Transportation's Integrated Transportation Decision-making process
  - Analyze the costs/benefits of accomplishing each proposed improvement

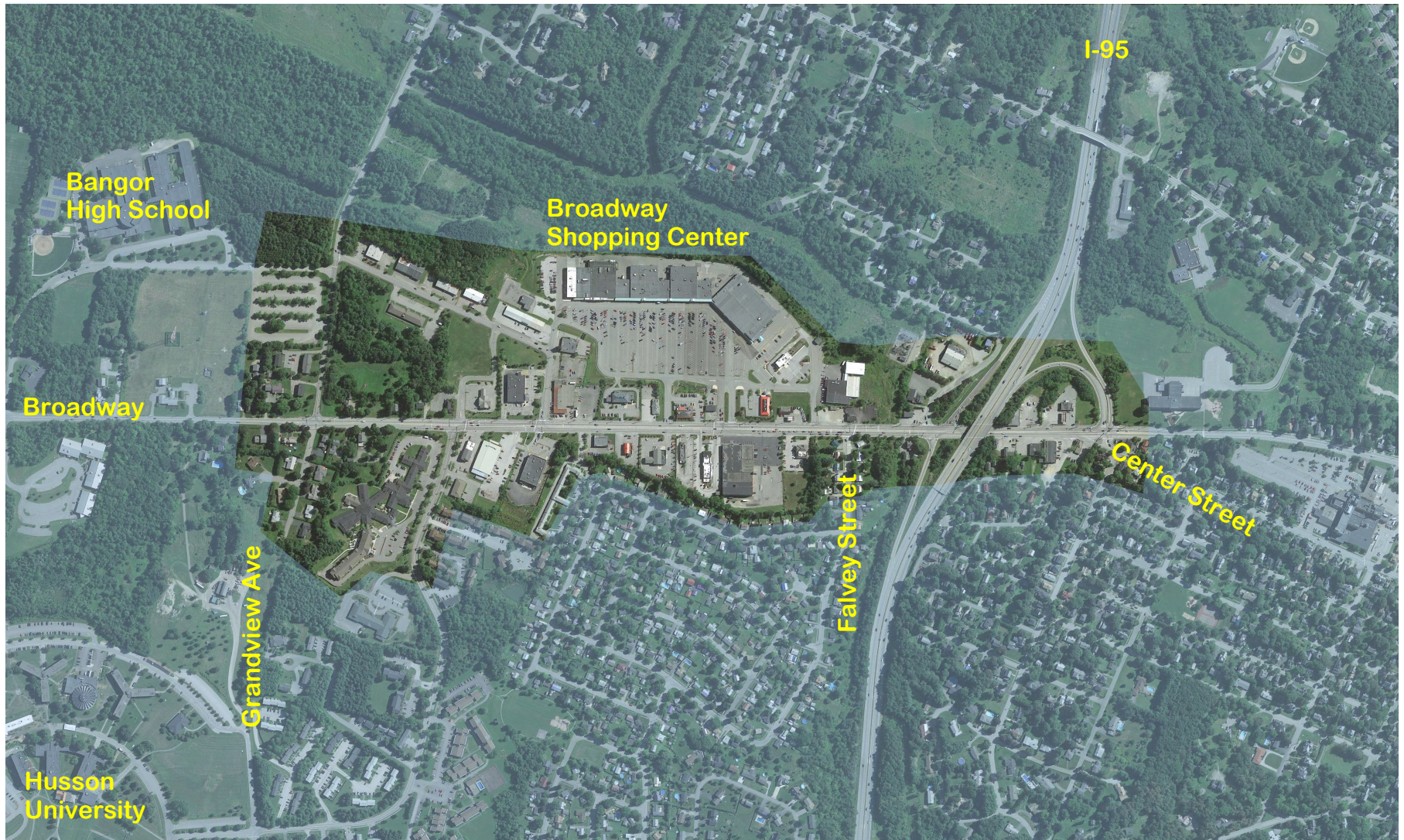
*Broadway Corridor Study*

# Existing Conditions





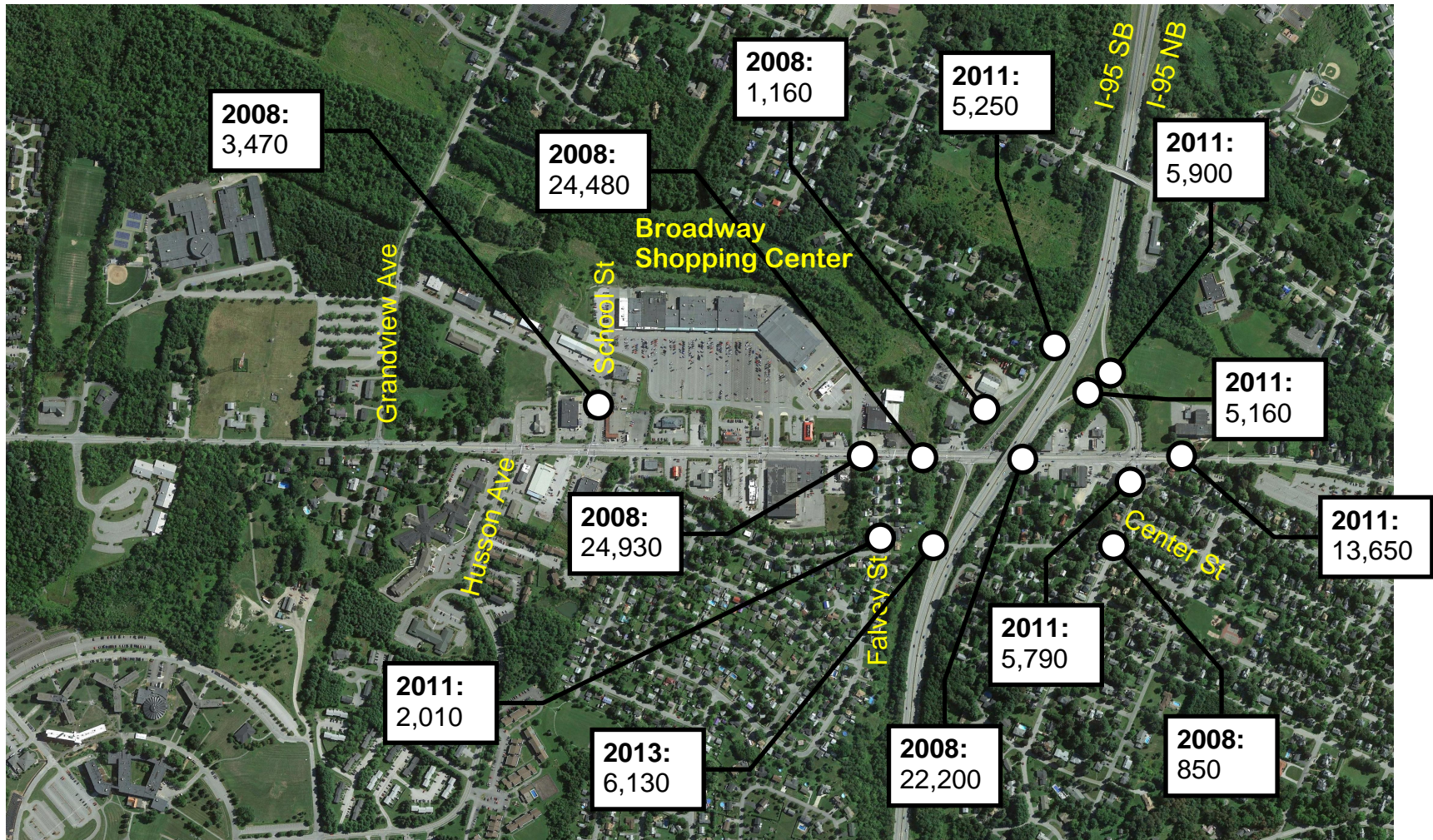
## Broadway Study Area





# Average Annual Daily Traffic Volumes

Source: MaineDOT





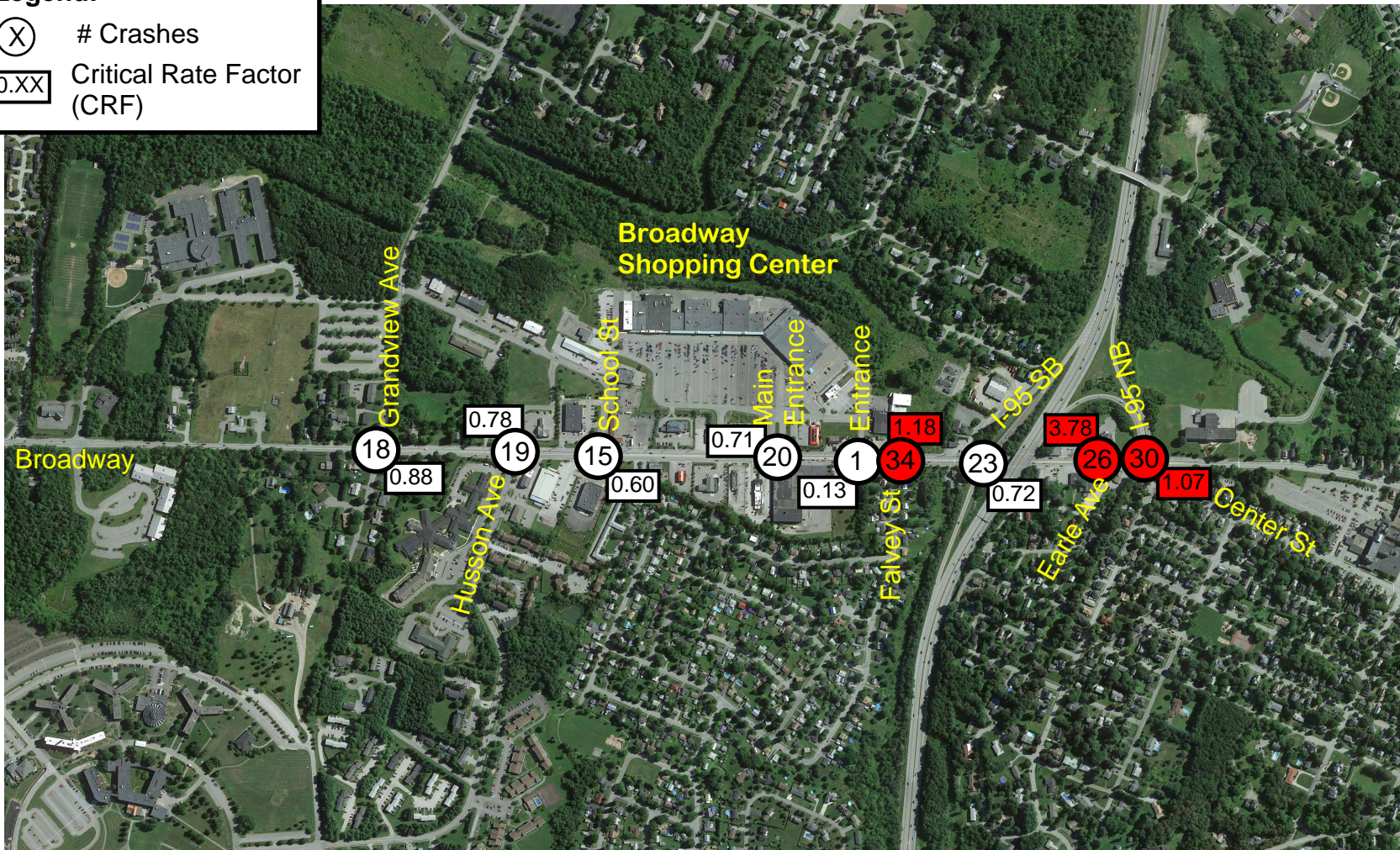
# Intersection Crash Data

Source: MaineDOT

2011 - 2013

## Legend:

- (X) # Crashes
- 0.XX Critical Rate Factor (CRF)

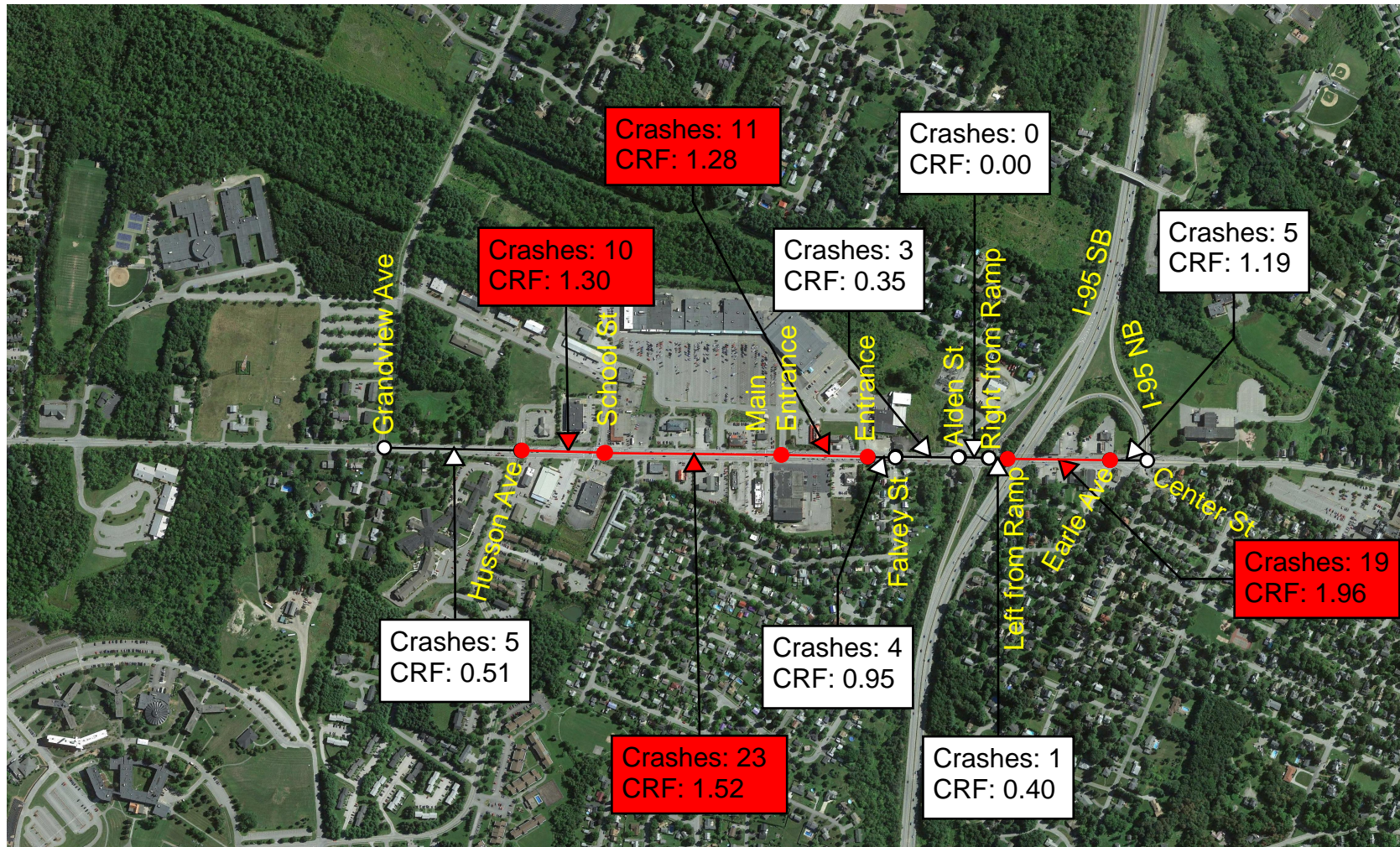




## Segment Crash Data

Source: MaineDOT

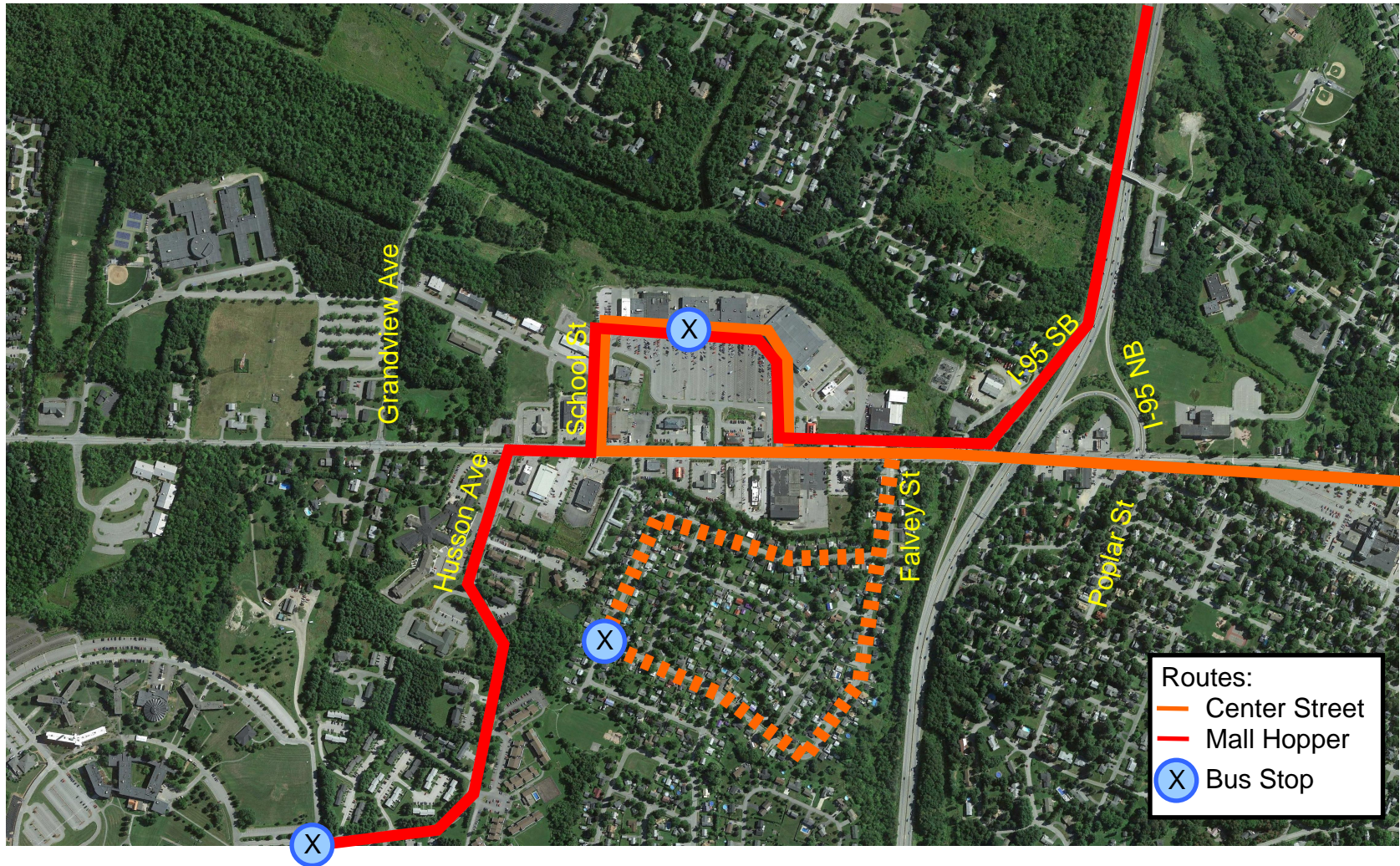
2011 - 2013





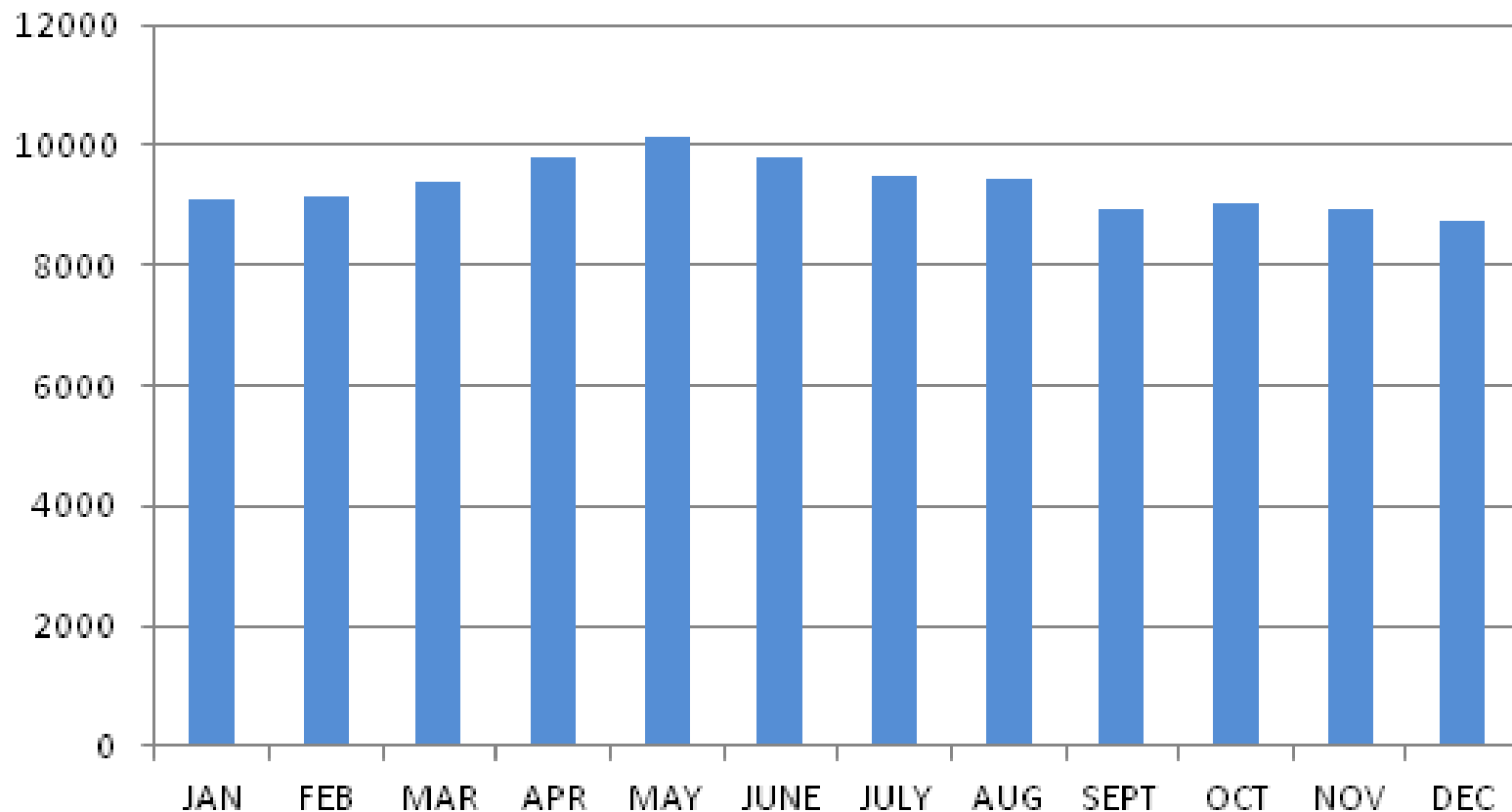
# Community Connector Bus Routes

Source: City of Bangor



## Average Volume By Month

### 2013 Average Volume By Month



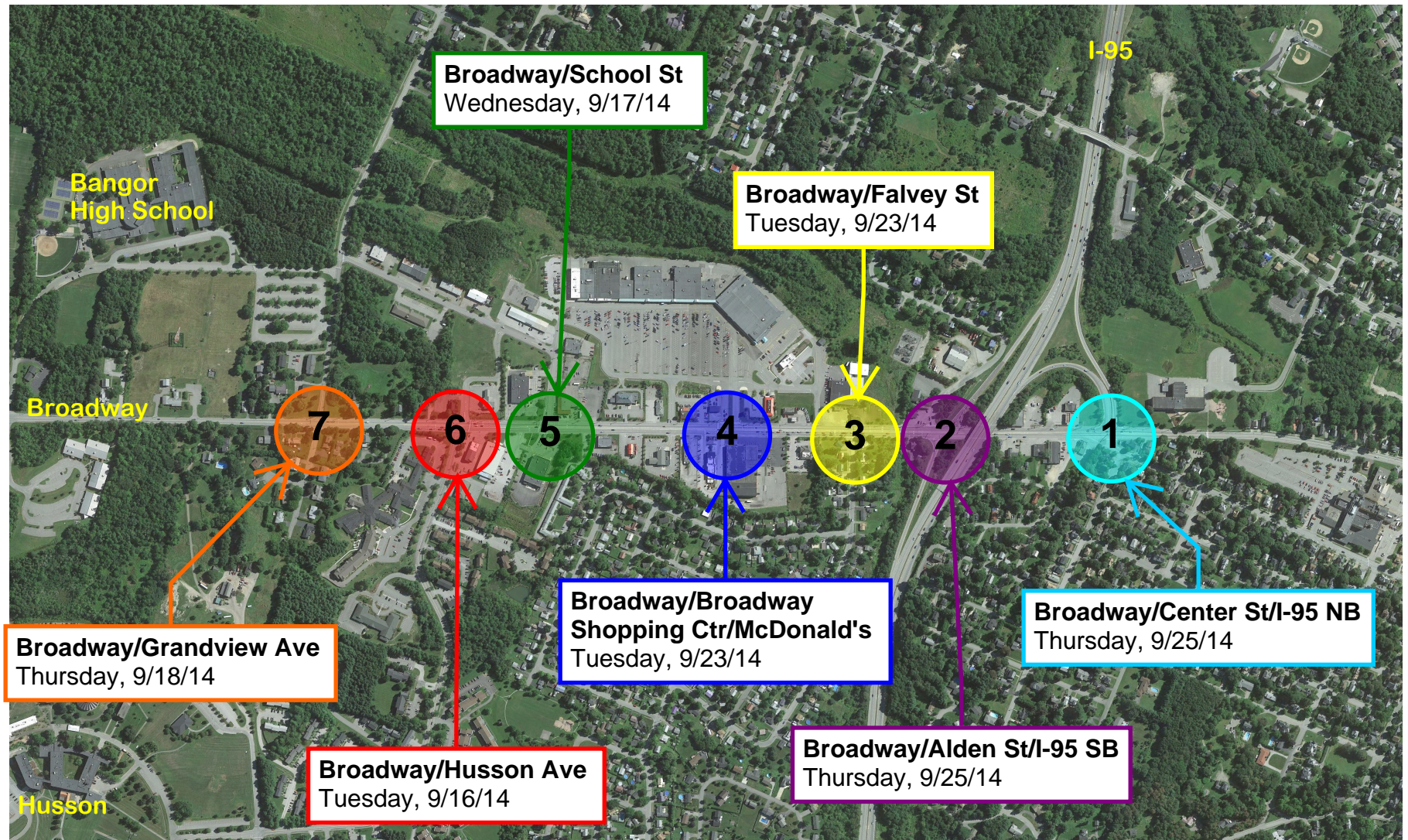


# Daily Volume Variation



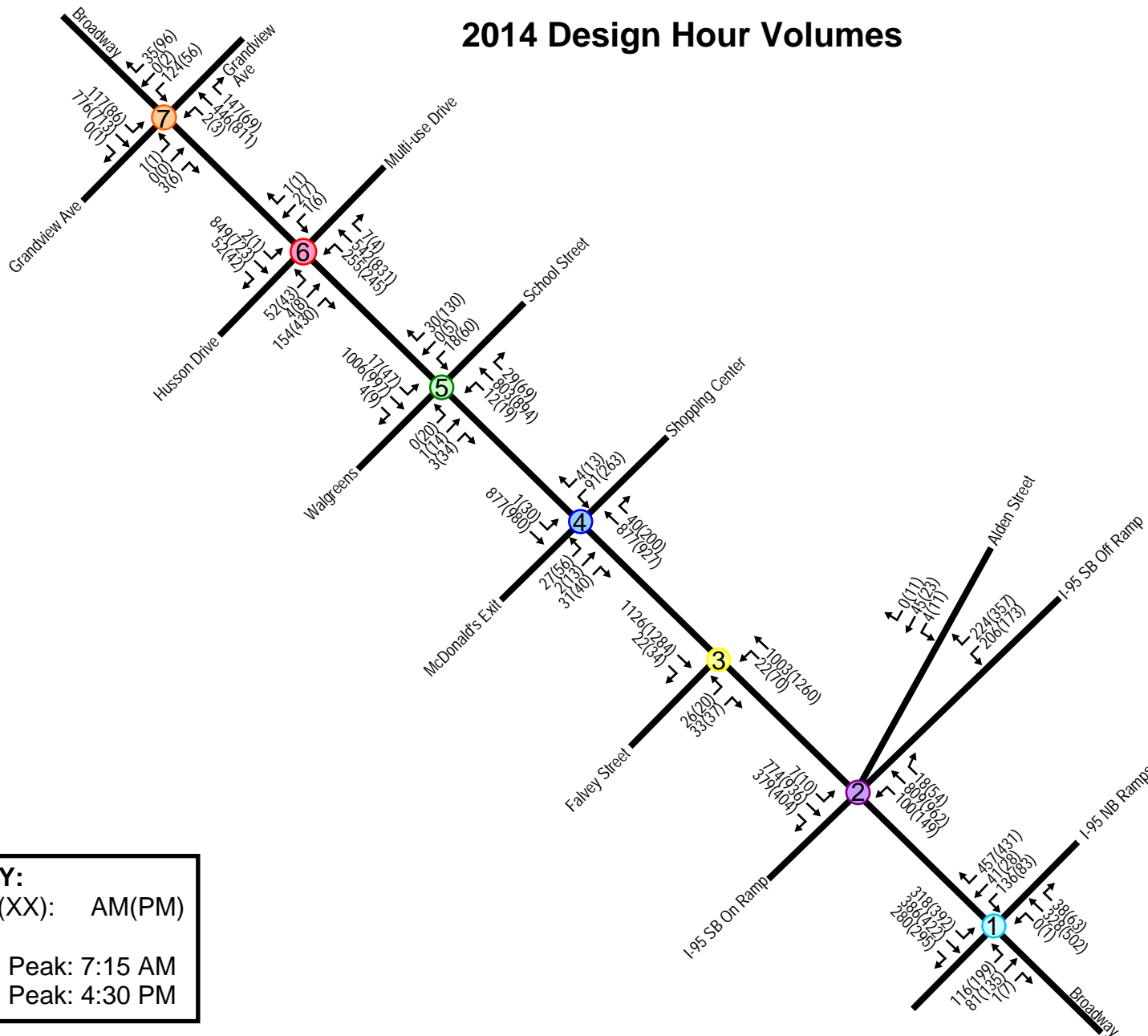


## Intersection Count and Evaluation Locations

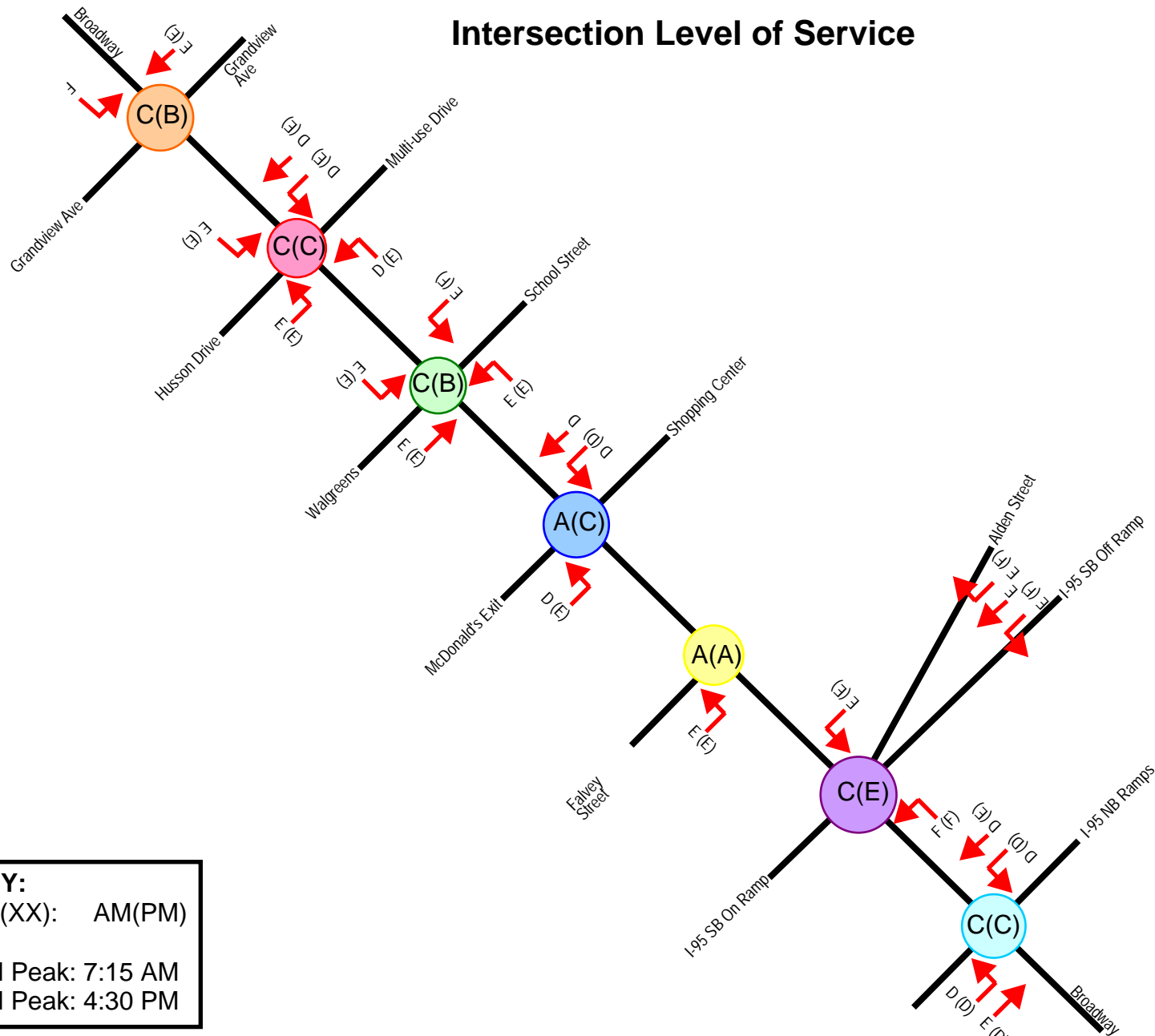




# 2014 Design Hour Volumes



# Intersection Level of Service



## KEY:

XX(XX): AM(PM)

AM Peak: 7:15 AM

PM Peak: 4:30 PM



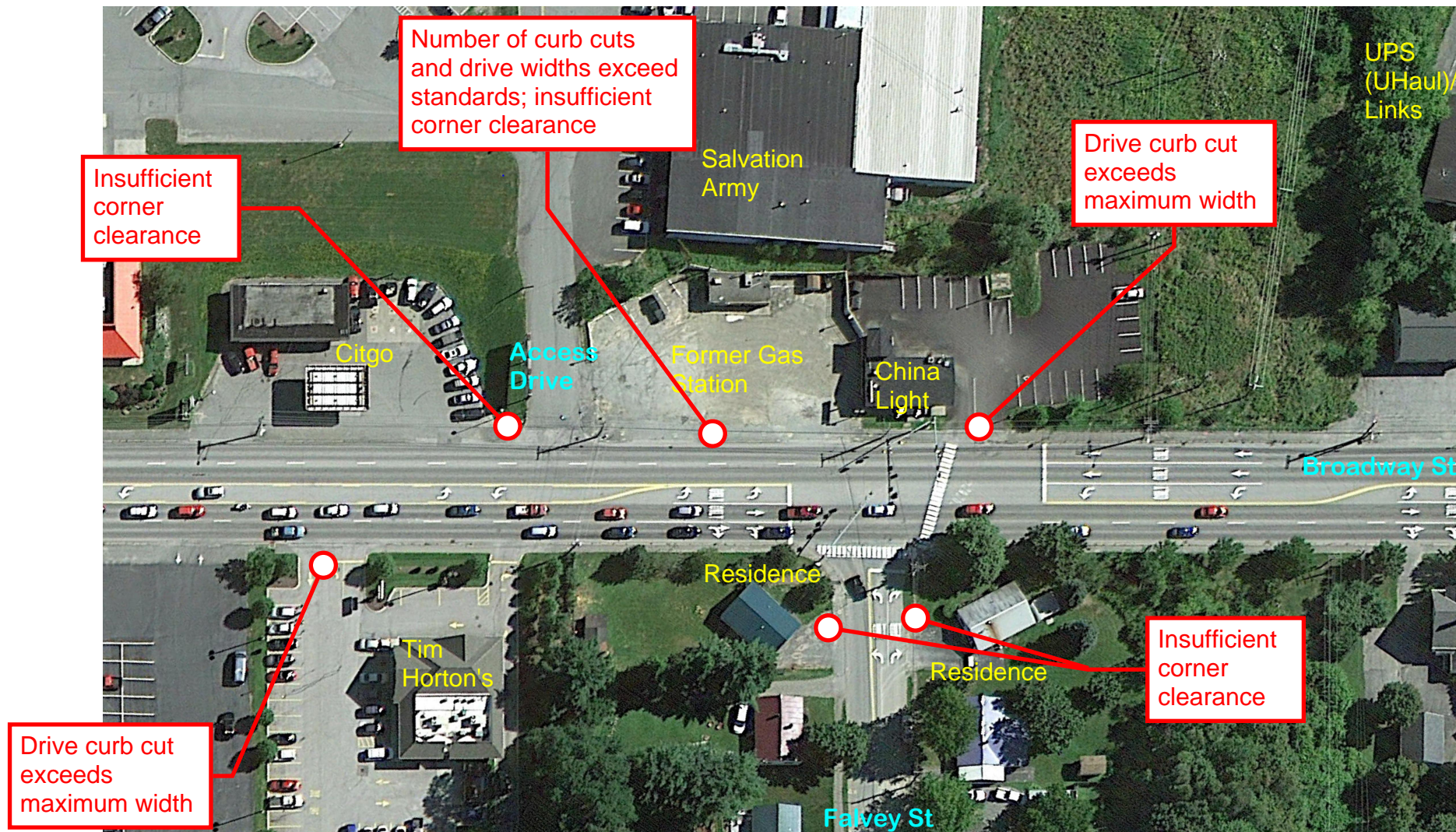
## Broadway Corridor Study



City of  
**Bangor**  
Maine

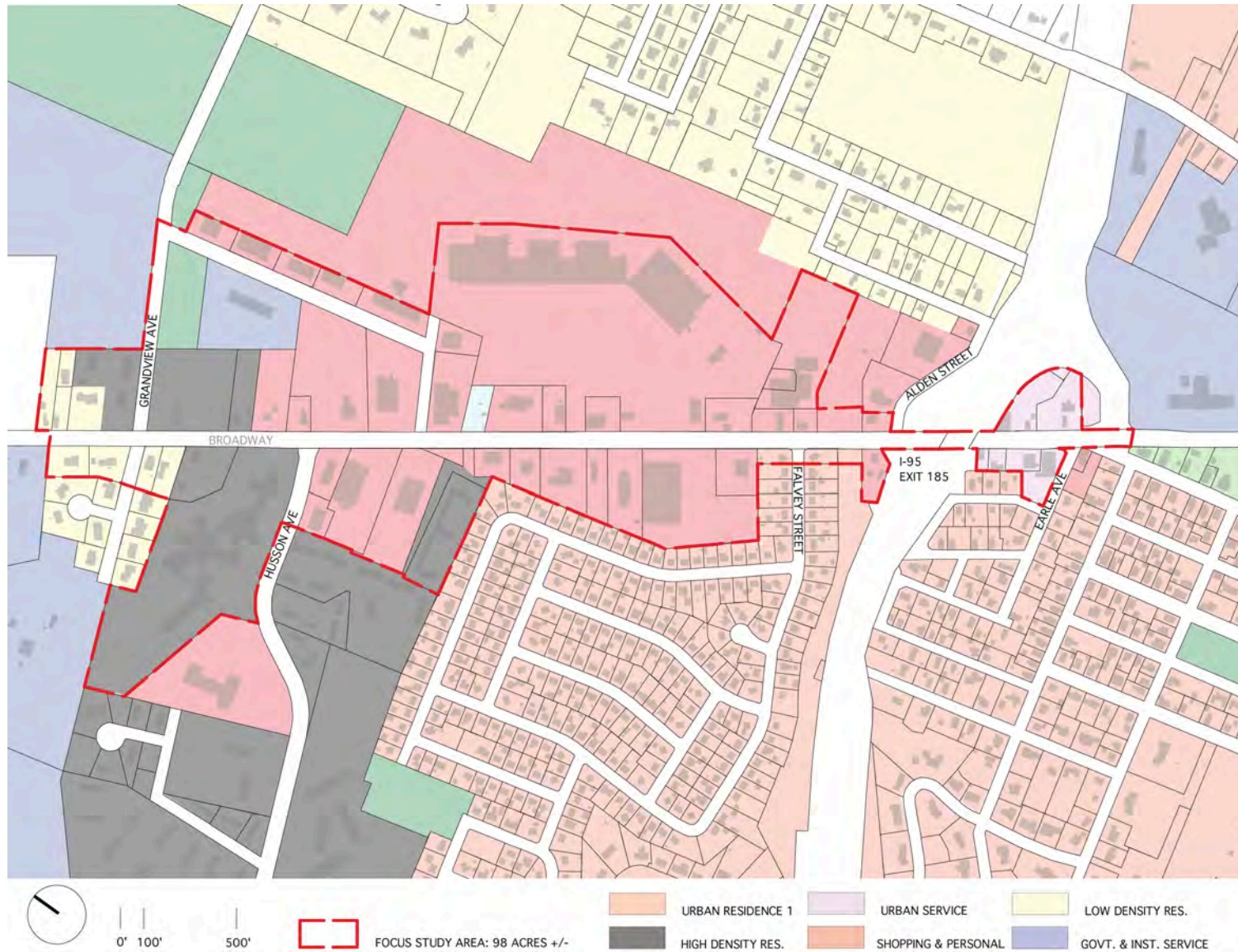


## Access Management Example *Falvey Street Intersection*

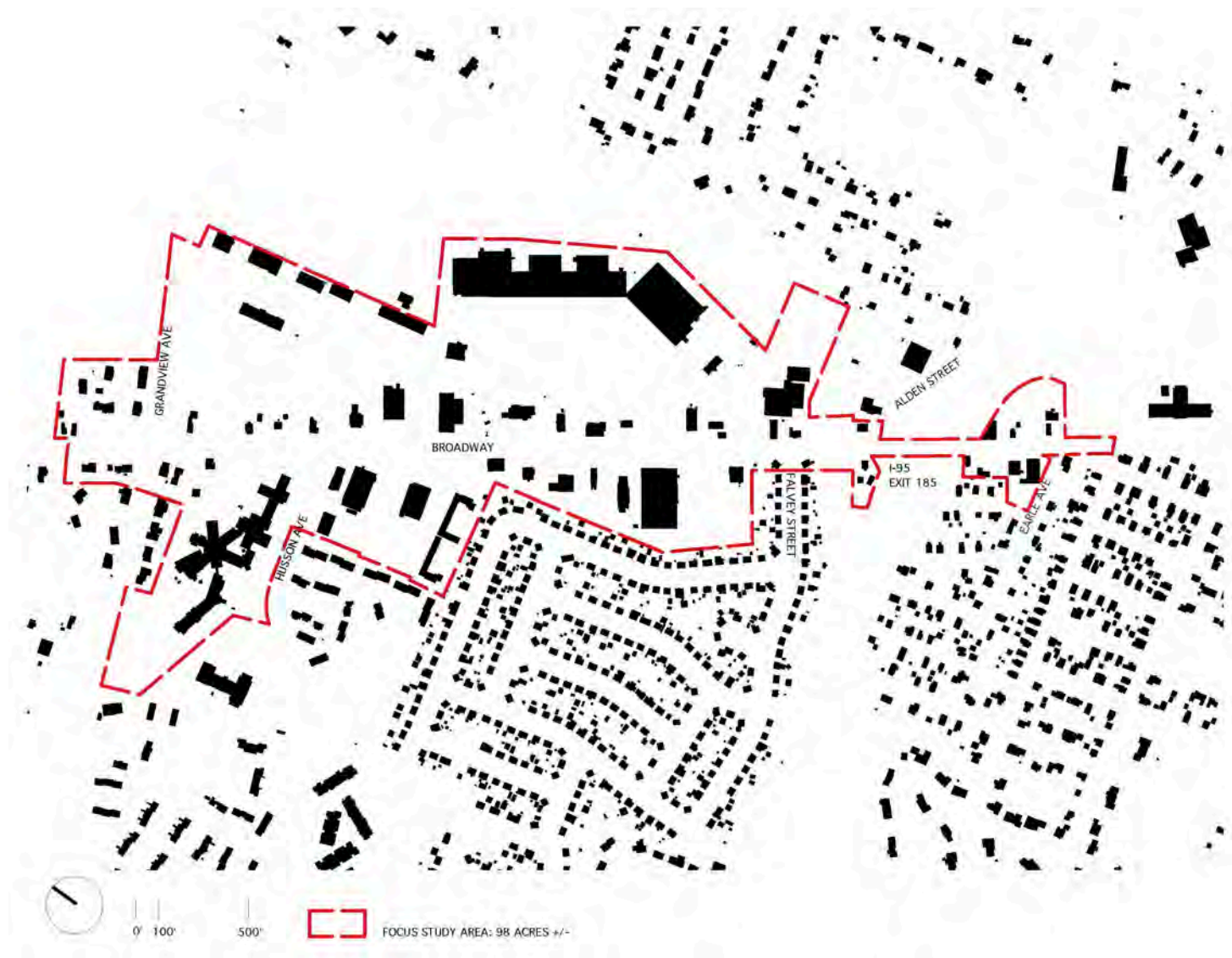




# Existing Zoning



## Figure Ground / Development Patterns





## Asphalt / Impervious Surface

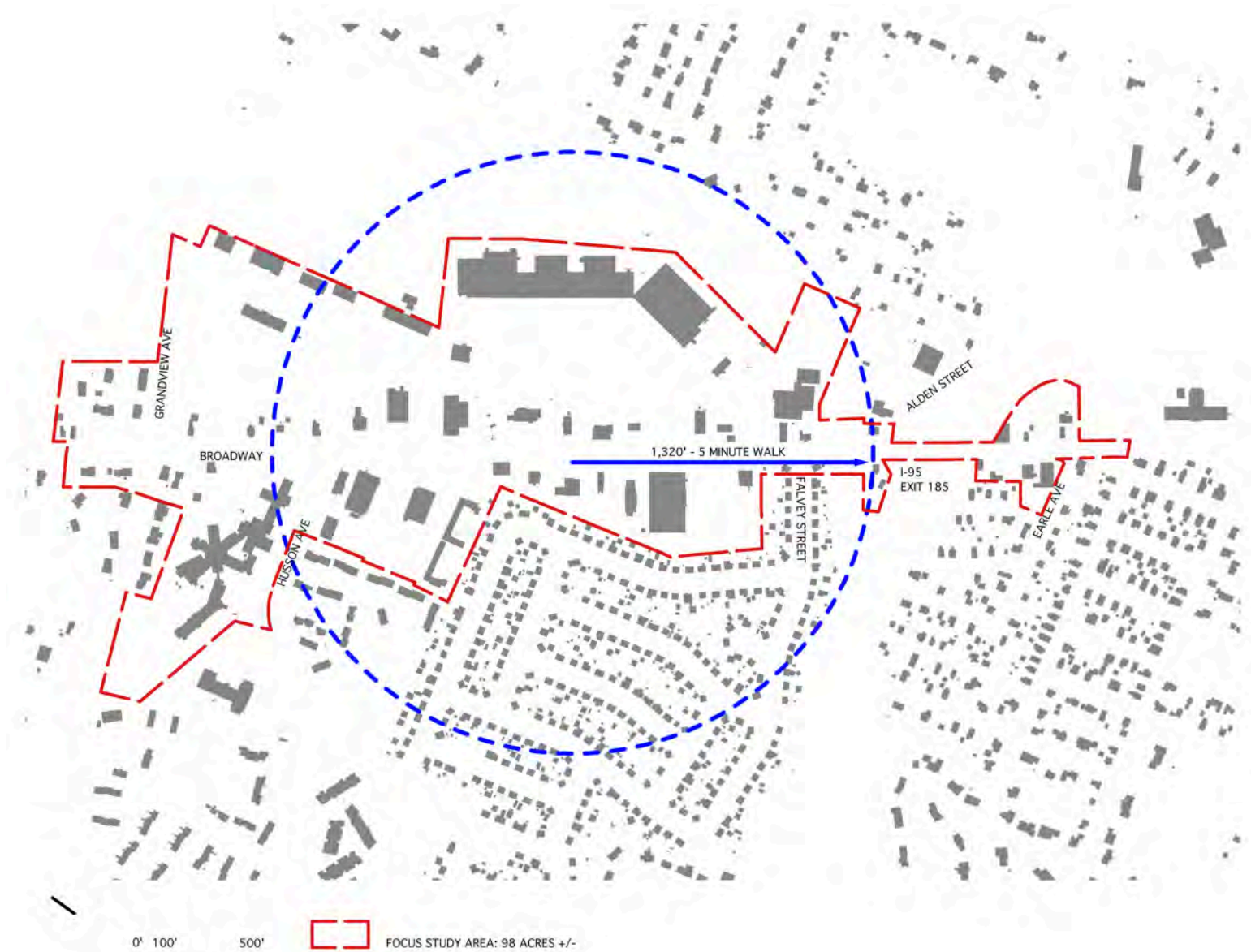


# Impervious Surface

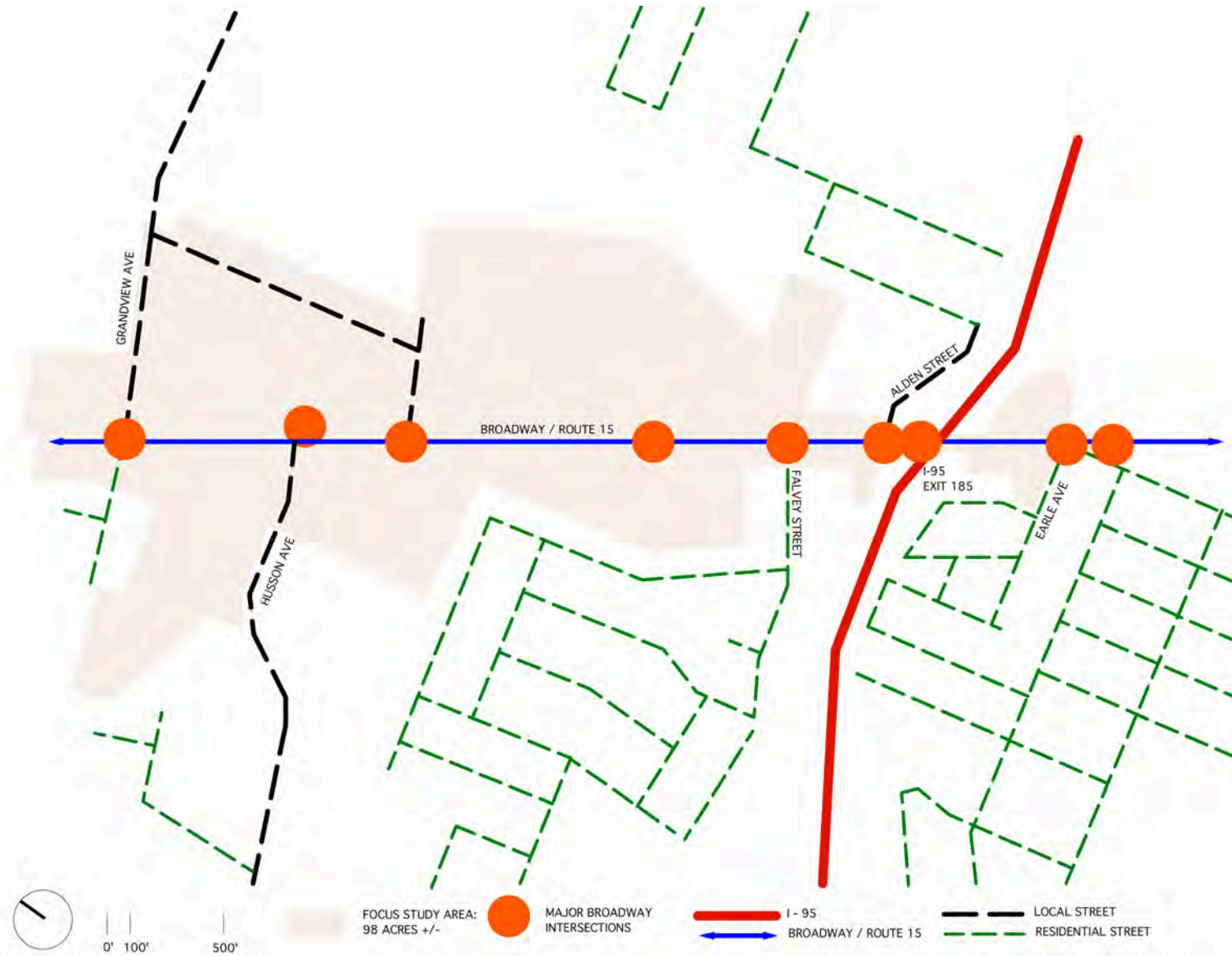




## Pedestrian Shed



## Streets / Connectivity



# Next Steps

1. Incorporate Findings from Public Meeting into Findings
2. Future Trends Analysis – December/January
3. SC Meetings (#2 Future Trends/Possible Improvement Strategies) – January 22, 2015
4. Property Owner / Business Open House
5. Second Public Meeting – Present Draft Recommendations
6. Planning Board / Council Presentations

