

SPECIAL BOARD OF ALDERMEN

SEPTEMBER 28, 2020

7:00 PM

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Meeting ID: 876 8012 6610

Passcode: 195026

To join by phone: 1-929-205-6099 - Meeting ID: 876 8012 6610 Passcode: 195026

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PRESIDENT LORI WILSHIRE CALLS ASSEMBLY TO ORDER

PRAYER OFFERED BY CITY CLERK SUSAN K. LOVERING

PLEDGE TO THE FLAG LED BY ALDERMAN LINDA HARRIOTT-GATHRIGHT

ROLL CALL

PUBLIC HEARINGS

R-20-071

**AUTHORIZING THE MAYOR AND CITY TREASURER TO ISSUE BONDS
NOT TO EXCEED THE AMOUNT OF EIGHT MILLION DOLLARS (\$8,000,000) FOR TWO
CONSTRUCTION PROJECTS, CONSISTING OF A PUBLICLY ACCESSIBLE GROUND LEVEL
PARKING GARAGE (\$2,500,000) AND ADDITIONAL FUNDING FOR THE PROPOSED
PERFORMING ARTS CENTER (\$5,500,000)**

Testimony in Favor

Testimony in Opposition

Testimony in Favor

Testimony in Opposition

**ADOPTING A TAX INCREMENT FINANCING (TIF) DEVELOPMENT DISTRICT UNDER RSA 162-K
AND NRO 295-11, THE "SCHOOL STREET TIF" AND A TAX INCREMENT FINANCING
DEVELOPMENT PROGRAM AND FINANCING PLAN FOR THE NEW TIF**

Testimony in Favor

Testimony in Opposition

Testimony in Favor

Testimony in Opposition

ADJOURNMENT



RESOLUTION

AUTHORIZING THE MAYOR AND CITY TREASURER TO ISSUE BONDS NOT TO EXCEED THE AMOUNT OF EIGHT MILLION DOLLARS (\$8,000,000) FOR TWO CONSTRUCTION PROJECTS, CONSISTING OF A PUBLICLY ACCESSIBLE GROUND LEVEL PARKING GARAGE (\$2,500,000) AND ADDITIONAL FUNDING FOR THE PROPOSED PERFORMING ARTS CENTER (\$5,500,000)

CITY OF NASHUA

In the Year Two Thousand and Twenty

WHEREAS, the Board of Aldermen passed R-18-001 “Authorizing the Mayor and City Treasurer to issue bonds not to exceed the amount of fifteen million five hundred thousand dollars (\$15,500,000) for the Performing Arts Center located at 201 Main Street” on February 13, 2018.

WHEREAS, the Board of Aldermen passed R-18-092 on December 11, 2018, which amendment allowed borrowing for the design of the project prior to the raising of \$4,000,000 in private funds, including New Market Tax Credits, for the new performing arts center.

WHEREAS, the Board of Aldermen passed R-20-001 on February 2, 2020, which amended the time period on the expiration date of the Performing Arts Center project bonding authority until August 31, 2021 as it relates to the additional \$4,000,000 to be raised.

NOW THEREFORE BE IT RESOLVED by the Board of Aldermen of the City of Nashua that the Mayor of the City of Nashua and the City Treasurer of the City of Nashua are hereby authorized to issue and sell general obligation bonds of the City in an aggregate principal not to exceed two million five hundred thousand dollars (\$2,500,000). The proceeds of said bonds shall be used for the construction of a publicly accessible ground level parking garage to a proposed 146 unit multi-family apartment project on a City owned parking lot, which would include an area for parking (approximately 48-50 spaces), a minimum amount of lobby and amenity space, fire stairs landing at grade from the building above, and mechanical spaces so serve the building with power, water, and other infrastructure. The useful life of the improvements is twenty-five years.

RESOLUTION

R-20-071

FURTHER RESOLVED, by the Board of Aldermen of the City of Nashua that the Mayor of the City of Nashua and the City Treasurer of the City of Nashua are hereby authorized to issue and sell general obligation bonds of the City in an aggregate principal not to exceed five million five hundred thousand dollars (\$5,500,000). The proceeds of said bonds shall be used to pay construction costs of the Performing Arts Center project, in addition to all other amounts previously approved to be expended for that project. The stipulations approved by the Board of Aldermen under R-18-001, R-18-092, and R-20-001 will apply to this bond resolution (R-20-070). The useful life of the improvements is twenty-five years.

The amounts indicated above for each project are estimates and the Mayor may allocate more funds to any one or more of such projects, and less to others, so long as, in the judgment of the Mayor, each of the projects described above can be completed within the total appropriation made by this Resolution.

It is intent that a new Tax Increment Financing (TIF) district will be created that would fund the annual payments on this bond. The TIF will include certain properties on School Street and surrounding streets.

Pursuant to Nashua City Charter §54-a, this resolution requires a “duly advertised public hearing.” Also see N.H. RSA 33:9, which requires a 2/3 vote of all the members for passage of this resolution.

The bonds shall be general obligations of the City of Nashua, payable as to principal and interest from ad valorem taxes, which will be levied without limitation as to rate or amount on all taxable property within the territorial limits of the City of Nashua.

The bonds shall bear the manual or facsimile signature of the City Treasurer and the Mayor. In accordance with Chapter 91 of the New Hampshire Acts of 2005, bonds issued pursuant to this resolution shall not require an authenticating certificate of a bank or trust company doing business in the State of New Hampshire or The Commonwealth of Massachusetts, or the Commissioner of Revenue Administration.

The bonds are to be issued in fully-registered form by means of a book-entry system or otherwise and shall have such terms and conditions and be in such form, subject to the provisions of this resolution and applicable law, as shall be determined by the Mayor and the City Treasurer.

FURTHER RESOLVED, that the Mayor is authorized to enter into the required contracts therefor as well as any amendments to be made thereto or any other documentation necessary for the receipt of said funds.

LEGISLATIVE YEAR 2020

RESOLUTION:

R-20-071

PURPOSE:

Authorizing the Mayor and City Treasurer to issue bonds not to exceed the amount of eight million dollars (\$8,000,000) for two construction projects. The first being the construction of a publicly accessible ground level parking garage to a proposed 146 unit multi-family apartment project on a city owned parking lot, which would include an area for parking 48-50 spaces. The second being additional funding for the performance arts center. The new total amount needed for the performance arts center project will now be twenty one million dollars (\$21,000,000) - R-18-001 authorized \$15,500,000 and this current resolution R-20-070 authorizes \$5,500,000.

SPONSOR(S):

Mayor Jim Donchess

COMMITTEE ASSIGNMENT:

FISCAL NOTE:

It is anticipated that the bond would be sold in FY 21/22 for a term of twenty five years. It is estimated the interest rate will be approximately 2.5% (TAXABLE) and the total cost of the bond will be approximately \$10,664,225 including interest-level debt. The average annual payment will be approximately \$426,569. At this time it is undeterminable if the TIF district will have sufficient funds to cover the first 2 years of bond payments related to the PAC. It is also anticipated the full or a portion of the revenue derived from the sale of the air rights for the new apartments building may be available for these projects in anticipation of a supplemental appropriation request.

ANALYSIS

This resolution authorizes the City to issue and sell general obligation bonds up to \$8,000,000 for the Parking Garage and Performance Art Center (PAC) The garage has not been through the most recent Capital Improvements Program but it is scheduled for a meeting in September 2020. Funding for this bond will be generated through a new proposed Tax Increment Financing District (TIF). Pursuant to Nashua City Charter §54-a, this resolution requires a “duly advertised public hearing”. Also see NH RSA 33:9, which requires a 2/3 vote of all the members for passage of this resolution.

**Approved as to account
structure, numbers and
amount:**

Financial Services Division

By: /s/ David G. Fredette

Approved as to form:

Office of Corporation Counsel

By: /s/ Celia K. Leonard

Date: 9/2/2020



ORDINANCE

ADOPTING A TAX INCREMENT FINANCING (TIF) DEVELOPMENT DISTRICT UNDER RSA 162-K AND NRO 295-11, THE "SCHOOL STREET TIF" AND A TAX INCREMENT FINANCING DEVELOPMENT PROGRAM AND FINANCING PLAN FOR THE NEW TIF

CITY OF NASHUA

In the Year Two Thousand and Twenty

The City of Nashua ordains that Part II "General Legislation," Chapter 295 "Taxation," Article V "Development and Revitalization Districts," of the Nashua Revised Ordinances, as amended, is hereby amended by adding a new section as follows:

"§295-12.1 District identified.

A. The following properties shall constitute a tax increment financing development district:

The property identified as Tax Map 79, Lot 35

The property identified as Tax Map 79, Lot 54

The property identified as Tax Map 79, Lot 129

The property identified as Tax Map 81, Lot 3

The property identified as Tax Map 81, Lot 16

The property identified as Tax Map 81, Lot 81

The property identified as Tax Map 81, Lot 95

The property identified as Tax Map 81, Lot 98

The property identified as Tax Map 81, Lot 104

ORDINANCE

O-20-030

- B. Such district shall also include any lots created out of or established from the foregoing lots.”

And further, it is hereby **RESOLVED** by the Board of Aldermen of the City of *Nashua* that the attached “Tax Increment Financing Development Program and Financing Plan” is hereby adopted for the tax increment financing development district comprised of land identified in NRO Section 295-12.1.

LEGISLATIVE YEAR 2020

ORDINANCE: O-20-030

PURPOSE: Adopting a Tax Increment Financing (TIF) Development District under RSA 162-K and NRO 295-11, the “School Street TIF” and a Tax Increment Financing Development Program and Financing Plan for the New TIF

SPONSOR(S): Mayor Jim Donchess

**COMMITTEE
ASSIGNMENT:**

FISCAL NOTE: The proposed TIF district at this time does not have any direct impact on the City’s budget. This legislation sets out the governance process necessary to capture the future tax increment within the district, which we do not know, but could range from \$1,400,000 to \$1,500,000 based on a five year timeline. This money would be used to make improvements as outlined on the plan.

ANALYSIS

RSA Chapter 162-K, adopted by the City in 1998, enables the City to establish economic development and revitalization districts, in which enhanced property tax revenue is designated to offset the cost of designated improvements, which may be financed by general obligation bonds. NRO §295-11 adopts the general powers of RSA Chapter 162-K; this legislation adopts a new development district comprised of the identified parcels situated on or around School Street and adopts a development program and tax increment financing plan for the district.

A development district may be designated by the Board of Aldermen upon a finding that it will serve a public purpose. RSA 162-K:5. The district development program and tax increment financing plan details the proposed public and private uses of the district and estimates the cost of the development program and the sources of revenue. See RSA 162-K:6 and 9.

Prior to designating any development district, a hearing shall be conducted by the governing body, held at least 15 days prior to the date on which action on the proposal is scheduled to take place. Notice of the hearing, including a description of the proposed district, shall be posted in 2 appropriate places in the City or published in a newspaper of general circulation at least 7 days prior to the hearing. See RSA 162-K:4.

Before formation of a development district, the City shall provide a reasonable opportunity to the county commissioners and the school board to meet with the governing body. The governing body shall fully inform the county commissioners and the school board of the fiscal and economic implications of the proposed development district. The county commissioner and school board may present their recommendations at the public hearing. See RSA 162-K:9, III.

The City's annual report shall contain a financial report for any development district in the City. RSA 162-K:11. The Board of Aldermen must designate an administrator and advisory board for the development district. RSA 162-K:13 and 14. This legislation has the Economic Development Director serve as the administrator and the Advisory Board is described in the Plan.

Approved as to account structure, numbers and amount:

Financial Services Division

By: /s/ John Griffin

Approved as to form:

Office of Corporation Counsel

By: /s/ Celia K. Leonard

Date: 9/2/2020

School Street

Tax Increment Finance District

Development Program & Financing Plan

Date: _____



Adopted by the Nashua Board of Aldermen _____

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Appendix A - District Boundary Map

Appendix B – 2003 Downtown Master Plan

Appendix C – 2015 Downtown Circulation Study

Appendix D- Performing Arts Center Feasibility Study

Appendix E-Technical Memo on Parking Located On the Ground Floor of the School Street Parking Lot

Appendix F –Property Cards

Appendix G – District Properties, Acreage and Established Value

Appendix H – Adopting Provisions of RSA 162-K

Introduction

In accordance with the provisions of RSA 162-K, Municipal Economic Development and Revitalization Districts, the Nashua Board of Aldermen hereby establishes the School Street Tax Increment Financing ("TIF") District, and the associated Development Program and Financing Plan (hereinafter "the TIF Plan").

Purpose & Objectives

The purpose of the TIF Plan is to advance the desirable development, redevelopment and physical improvements along the adjacent to West Pearl Street and School Street creating a mixed-use environment and a growing multi-family neighborhood. This plan is to create the framework to fund a variety of public improvements necessary to support this vision.

The objectives of this development program and TIF plan are to:

- Improve and upgrade public infrastructure and public amenities that encourage and create opportunities for businesses and housing to locate and expand within the district.
- Enhance employment and residential opportunities for area residents within the district.
- Expand the property tax base.
- Enhance arts and cultural assets within the district including continuing supporting the future Performing Arts Center located at 201 Main Street.
- To or improve parking either through management or adding additional parking.

Achievement of these objectives will occur through a combination of efforts. Existing and future property and business owners, new investors, and City staff and the City Board of Aldermen will be required to discuss redevelopment initiatives, and work cooperatively on funding plans and projects.

What happens to one singular building is important, especially to its owner, but more important is the goal of implementing comprehensive revitalization efforts that help support the economic, cultural, and societal health of the entire neighborhood. The goal, purpose, objective, and strategy of the City of Nashua is to work in a systematic and dedicated fashion to bring vitality, excitement, and character to an area that is ripe for reinvestment in an area of the city that is changing. The downtown is going through a renaissance moving away from retail as a mainstay to an entertainment and arts and cultural district.

Without question the overarching goal is to increase property values and to do this strategic public investments are necessary.

Background

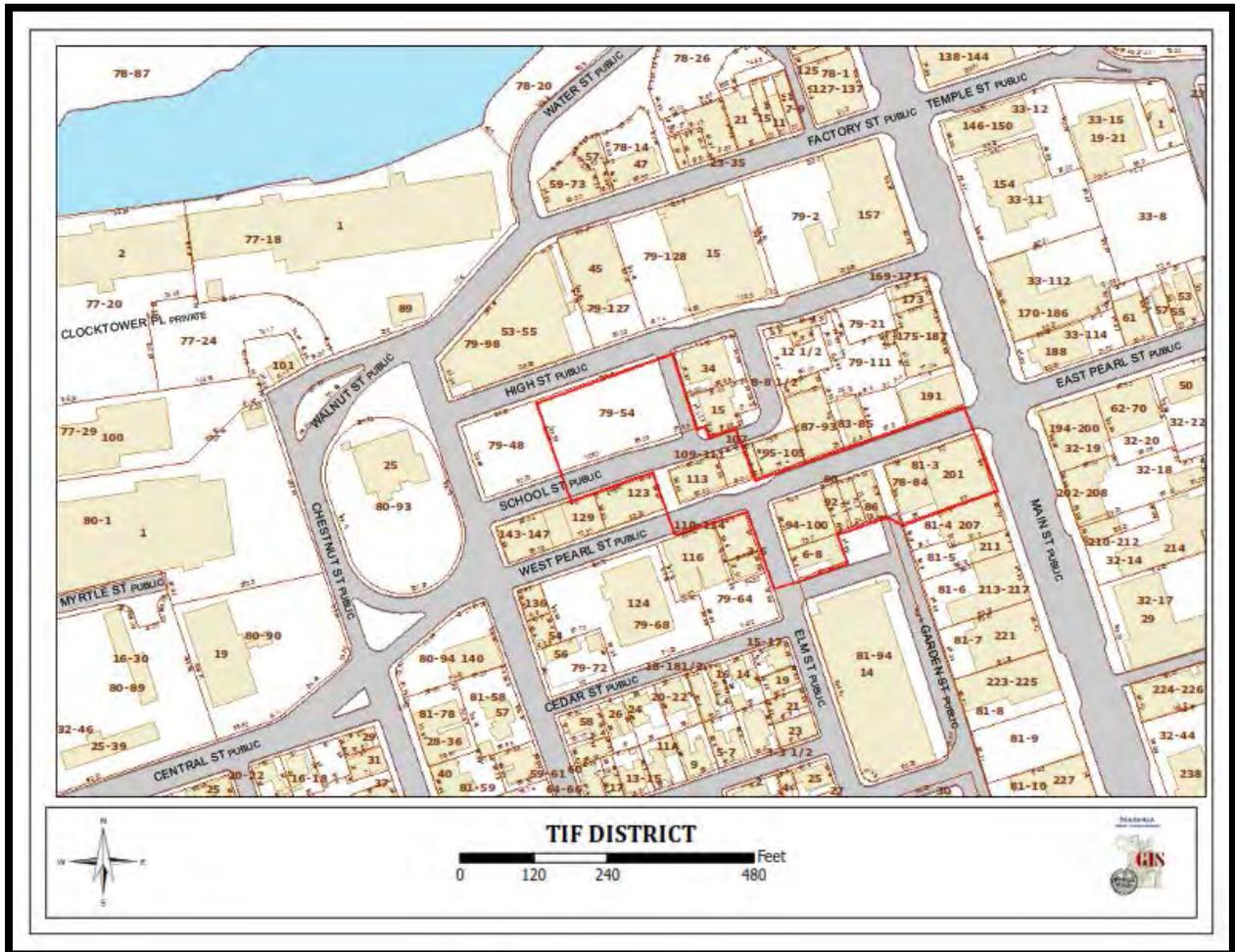
The city issued a Request for Proposals ("RFP") in the winter of 2017 seeking real estate development on 79 Map 54 Parcel an 80+ surface parking lot. Over the course of the past four years working with Lansing Melbourne Group ("LMG") on developing a plan for this surplus piece of property. There is a proposal to erect a 144 unit apartment building on the air rights above the parking lot. During the development of this proposal the abutters raised the question as to whether public parking could be provided for on the first floor. This led to a re-visioning of how the city and the developer would move forward.

Simultaneously, the city over the last few years has contemplated a streetscaping and infrastructure enhancement along West Pearl Street coupled with a reversal of the flow of traffic on West Pearl. More broadly this would also allow for the squaring off the “Courthouse Oval” on Walnut/Central and Factory/Chestnut Street(s).

In addition to the above the city along with some very committed private sector stakeholders have been working diligently to bring a Performing Art Center to the City of Nashua. When this comes to fruition it will bring about a cultural asset like no other to the area will assist in the neighborhood in transitioning into an entertainment and artistic district.

District Boundary

The boundary of the district is shown on Appendix A and included below. The map delineates a land area of 1.63 acres incorporating essentially half of a block from Main Street to Elm Street running along West Pearl Street then crossing over and traveling up School Street halfway.



TIF Development Program

The following outlines the elements of a development program per RSA 162K.

Conformance with District Limitations per RSA 162-K:5

The size of the district is 1.63 acres. The City of Nashua has a total of 19,712 acres. Therefore the district represents significantly less than the 5% maximum of the total City acreage per RSA 162-K:5.I.

The total assessed value [as of April 1, 2020] of all taxable property within the TIF boundary is \$5,007,000 or less than half a percent of the total of all taxable property within the City. Per RSA 162-K:5.II the properties within the TIF represent significantly less than the 8% maximum allowable of the total assessed value demonstrating conformance.

Proposed Improvements

The 2003 Downtown Master Plan highlights a broad range of concepts and recommendations that can facilitate economic revitalization for specific properties and calls out certain areas where there could be a transformative development catalytic for the area, which would reinvigorate the blighted area(s). The plan contemplates specific improvements as well as articulating broad-based themes. It is the belief of the that the best TIF plan is one which does not lock the City into a defined list of specific projects; re-development goals or the infrastructure needs of the City, because they can shift with changing markets, or as a result of different land uses that might be proposed for a specific property. However, the design framework outlined in the 2003 Downtown Master Plan is very applicable and will be used as a guide. Ultimately, being flexible towards what potential TIF projects might work at a certain time will provide for the best utilization of TIF funds, which are, at the end of the day, the incremental tax revenues paid by the TIF District. Again, the 2003 Downtown Master Plan is a guiding document, please see Appendix B.

The 2015 Downtown Circulation Study, please see Appendix C is another document that provides additional guidance on how the circulation and flow of traffic could improve with broad based improvements to the downtown area. Ultimately, the 2015 Downtown Circulation Study attempts to better connect Main Street to the Broad Street Parkway with ancillary improvements suggested to create a better downtown environment.

Finally, The Performing Arts Feasibility Study, please see Appendix D, which outlines the City's overall vision to have a 750 seat flexible venue in the heart of downtown to help revitalize the city.

There is a broad framework of projects that could provide for enhanced revitalization efforts; examples include, but are not limited to, the following:

- Infrastructure improvements [sidewalk/crosswalks/utility upgrades and relocation] that allow for better utilization of property in the District; or stormwater drainage upgrades that will provide for enhanced protection of the Nashua River;
- The construction of, or improvements to, public spaces that will create better links between city residents and visitors to the downtown, which is important to our City's economic history and cultural fabric;
- Construction of a Performing Arts Center;
- Open spaces introduced in strategic locations to support a mixed use environment and provide good urban design benefits.

- The acquisition of buildings or properties which would be better utilized for a public purpose [ex. parking or open/recreational spaces]; and,
- Transportation projects that improve access to the TIF District and/or provide for pedestrian safety. Including looking at the one way reversal of traffic flow and the adding of parking spaces on street.

Each TIF project which is presented to the Board of Aldermen will be linked with one of these general project categories. Each project must also satisfy one of the "public use" definitions contained in RSA 162-K:2. Each project that is approved, following a public hearing, by the Board of Aldermen will constitute a formally adopted modification to this overall TIF Plan, and it's Financing Plan.

Any project brought forward to the Board of Aldermen for approval will need to address how the Downtown area of (West) Pearl and School Streets Tax Increment Financing District is enhanced, utilized or benefited through the implementation of the project. The Board of Aldermen understands the importance of this land area, especially given the valuable resources being associated in a vibrant downtown.

Examples of improvements that could be part of a TIF project include:

- Streetscaping on West Pearl Street; and
- Construction of a Performing Arts Center
- Sewer upgrades
- Utility Pole relocation(s)
- Parking (Management/Creation)

Economic Benefits of the Overall TIF Project

The framework of these improvement categories described herein are required in order to service the existing population and accommodate and encourage future growth. It is the latter that is needed most in the City. As pointed out earlier in this Plan, the economic viability of the downtown area has suffered and is starting to resurge.

The decisions by the Board of Aldermen to undertake TIF improvements coupled with the positive initiatives being brought forward by some owners and investors can and will be a significant catalyst for an upswing in the downtown economy. The combination of TIF projects, private investments, and the use of other state and federal loan, grant and tax incentive programs creates a cooperative framework that can be very effective and transformative.

The complete economic revitalization of the downtown will be fulfilled with many small steps. Progress is being made, and will continue to be made, through cooperation and communication. Adopting a TIF program is one strategy that needs to be cultivated along with other downtown improvement strategies. One singular approach will not solve all of the economic issues within the downtown.

The following is a list of potential future forecasted development or redevelopment within the district:

| Project | Location | Use | Estimated Tax Revenue |
|--------------------------|-----------------|------------|------------------------------|
| School Street Apartments | School Street | Housing | \$430,000.00 |

*The calculation uses a 2019 tax rate

Goals and needs of the business community and city residents must be openly discussed and aligned. All aspects of a project must be clearly outlined and understood by all parties this way, the economic benefits of this overall TIF Plan and the future project-specific modifications will be realized. The 2003 Downtown Master Plan shall be the principle guiding document due to its breadth in scope outlining the desires and wishes of the community due its extensive outreach efforts to gather community input.

Public Facilities

There will be a variety of public facilities potentially constructed as discussed including a Performing Arts Center and Streetscaping improvements along with the addition of additional parking.

Open Space Planning

As referenced in the 2003 Downtown Master Plan open space and the creation thereof along with the associated recreational opportunities and aesthetic improvements of this nature are important factors and should be taken into consideration for an overall downtown area. These improvements need to be balanced with the potential development that is also encouraged in a downtown, because seeking economic development opportunities is also a priority, especially to ensure there is sufficient revenue available to finance improvements. In this limited TIF District Open Space Planning will not be highly prioritized due to the small land area.

Environmental Controls

Given the historic nature of the developed areas of downtown Nashua and the industrial activities that occurred in the mills, without question there are environmental issues and concerns that will need to be dealt with during any project. The City of Nashua, as well as private parties, will be required to comply with all appropriate environmental regulations. These regulations may include, but are not limited to, any or all of the following:

- State and federal regulations regarding the protection of wetlands and floodplains
- Local/State standards for design of public sewer systems
- Local/State permits regarding soil disturbance/filling
- Local/State and federal regulations regarding air, water, and noise pollution
- Applicable building and life safety codes, zoning ordinance and site planning regulations
- Contamination by hazardous materials and the required clean-up protocols

Proposed Re-Use of Private Property

Since the Board of Aldermen will consider specific projects as plans are finalized in future years, it is difficult to know for certain what the intersection of private property and public projects will look like. The City has explored in the past the acquisition of certain properties for public uses, and it is expected that this approach will remain an option for future projects. As with all TIF projects, the costs and benefits for a possible purchase or taking of private property will be weighed with great care. All public uses and any private uses, whether through lease agreements, outright sales, or other appropriate mechanism will be conducted in conformance with all applicable sections of the RSA 162-K.

Relocation and Displacement

The City of Nashua will work to minimize the impacts of relocation for any residents or businesses within the District boundary. All relocation and dislocation activities will be in conformance with RSA 162-K, Section 6 and 15. Prior to the final acquisition of any property that is part of a specific TIF project and which would involve persons displaced by the project, a Relocation Plan will be prepared and submitted to the Administrator for review and approval. A copy of this plan will also be submitted to the Advisory Board for comment.

Operations and Maintenance of the District

The added cost for operation and maintenance [O & M] associated with the specific design of a TIF project will be part of the proposal package presented to the Board of Aldermen. The City will make every effort to minimize added O & M costs. If significant added O & M costs are identified, then, at the discretion of the Administrator funding of O & M costs may be part of the TIF Financing plan.

One of the goals, which is of the utmost importance is that no additional O & M be placed on the city's general budget.

Estimated Costs of the Development Program

Due to the fact that the Nashua is utilizing a project-specific approval process, it is not possible to provide estimates at this time for a development program. Any TIF project presented to the Board must include a complete cost estimate.

What is known is that the Nashua Performing Arts Center Feasibility Study is acting as a guiding document. This project is well underway with a total project cost of \$25.0 million. There are a few identified sources of funds, but a gap of approximately \$6.0 million, which TIF funds could be used. Additionally, attached in Appendix E is a technical memo outlining the costs for the proposed parking to be included into the School Street Apartment project.

It should be noted, that the above are two known projects that were the impetus for the development of this TIF. Over the coming years if a new project is proposed a full cost estimate will be included and understood.

Funding Sources

The City of Nashua intends to use multiple funding sources to complete the proposed work associated with any TIF project. Without question, a comprehensive revitalization program needs to utilize a broad range of funding sources or support mechanisms.

Examples include:

- Community Development Block Grant programs (CDBG)
- USDA Rural Development Grants
- NHDES Financial Assistance Water or Wastewater Grant programs
- New Market Tax Credits
- Historic Tax Credits
- Community Development Finance Authority programs

- N.H. Housing and Finance Authority programs
- NHDOT Enhancement Grants
- TCSP Grants from the Federal Highway Authority
- New Hampshire Business Finance Authority programs

A key component for the project funding is the use of the accumulated TIF Funds. All of the added-value tax increments shall be set aside and placed into the dedicated TIF Account fund.

It is the overall goal of the Board of Aldermen to pay for projects [either entirely or partially] through the use of the TIF Account Fund. All of the TIF Funds shall be directed towards the payment for specific TIF projects or the retirement of the outstanding bonds and notes issued for the improvements and activities approved through this Plan. The baseline values used to determine tax increments will be as of April 1, 2020. Enclosed in Appendix F are the property cards for the subject properties included in the TIF District.

For the purposes of determining the tax increments, the market based appreciation in value of any property shall be considered as new values to be captured for the dedicated TIF fund.

If there are available TIF Funds in excess of that which is necessary to fund the outstanding financial obligations for approved projects in a given year then the excess amount shall: 1) be used to make additional principal payments on bonds issued in conjunction with approved projects; 2) With the consent of the Board of Aldermen, be applied to a newly approved project within the TIF District; and 3) used for O&M as necessary.

Pursuant to RSA 162-K, the City of Nashua may issue bonds or other appropriate debt instruments to pay for the proposed work and improvements approved under this Plan, and any future approved modification.

As noted elsewhere in this Plan, the projects carried out under this Plan need to be fluid so the City can react to changing needs and circumstances in order to effectively move the goals and objectives forward. The Board of Aldermen, through a public hearing and Plan modification process, must approve all projects and the expenditures of all funds.

The TIF District and RSA 79-E

The Nashua Board of Aldermen voted in 2013 to adopt the provisions of RSA 79-E, the Community Revitalization Tax Relief Incentive program. This program provides a tax incentive for the rehabilitation of buildings in the City's core downtown area, which includes the area within the TIF District. Projects granted tax relief under RSA 79-E pay property taxes, for a determined period of time based on the pre-rehabilitation values.

Recognizing that there is a relationship between the implementation of a TIF Plan or project, and the collection of taxes that might occur under a property subject to tax relief under 79- E, the NH Legislature included the following language at Paragraph 79-E:4:

“VI. Municipalities shall have no obligation to grant an application for tax relief or properties located within Tax Increment finance Districts when the governing body determines, in its sole discretion, that the granting of tax relief will impede, reduce, or negatively affect:

- (a) *The development program or financing plans for such tax increment finance districts; or*
- (b) *The ability to satisfy or expedite repayment of debt service obligations incurred for a tax increment financing district; or*
- (c) *The ability to satisfy program administration, operating, or maintenance expenses within a tax increment financing district. "*

The Board of Aldermen will provide a public hearing for any application for tax relief under 79-E, and each application will be evaluated on its own merits. The Board does recognize that providing 79-E tax relief to a specific property may have an impact on the ability of the City to accrue the necessary TIF funds for the realization of projects that will benefit the City as a whole, but also may directly benefit that specific property. The Board of Aldermen will take the above 79-E language into consideration when making a decision on any individual 79-E application(s).

Development Agreements

The City acknowledges that the creation of public-private partnerships to further the goals and objectives of the TIF District and the Plan as outlined involves some level of risk on the part of both parties.

At the same time, the City recognizes that opportunities for risk with public funds are not in the best interest of the citizens and taxpayers of Nashua. It is not the intent of the Board of Aldermen to vote to authorize the issuance of any bonds or other financial obligation notes without the execution and recording of the appropriate Development Agreements in order to protect the interests of the City and its residents.

As part of the proposal for a private sector spurred project, the Board of Aldermen shall be provided with information on the project costs, the funding plan, and the Development Agreement. The exact language of a Development Agreement will depend on the complexity of the project. The Board of Aldermen may require the developer(s) to execute a clearly enforceable Agreement which will require the developer(s) to pay any deficiency between the City's actual annual cost for bond debt service and incremental tax revenues generated in, or available to, the District. The Board of Aldermen shall have final approval of the language of any Agreement negotiated by the Administrator. All Agreements shall be executed and recorded in the Hillsborough County Registry of Deeds.

Should the City desire to support public improvement within the general project area using the captured incremental tax revenues within the district than in this case, a Development Agreement will not be required.

Impacts on Other Taxing Jurisdictions

Property taxes applied to incremental assessed value in the TIF District will include the municipal, school [local and state], and county taxes currently collected by the City. The Board of Aldermen has not yet adopted the 2020- tax rates; the current 2019 applicable tax rates are as follows:

| | |
|-----------|--------|
| Municipal | \$8.68 |
| County | \$9.80 |

| | |
|-----------------|----------------|
| Education Local | \$2.13 |
| Education State | \$1.15 |
| Total | \$21.76 |

The estimated impact of tax increment financing on the assessed values of all other taxing jurisdictions within the City of Nashua is negligible, since the proposed improvements are designed to encourage commercial investment and lessen the residential tax burden. Thus, these activities will contribute to a long-term increase in the non-residential tax base at a faster rate than would otherwise be achieved.

Over the next five years there is a potential aggregate figure approximately \$500,000 of new tax dollars on the horizon.

Plan Amendments

Pursuant to RSA 162-K:9, this plan may be amended by a vote of Board of Aldermen in conformance with all applicable time frames and notice requirements. As discussed previously, each specific TIF project will be brought forward to the Board of Aldermen for review and approval, thus there will be future amendments to this TIP Plan.

Duration of Program

The TIF District will exist until all improvements or projects approved by the Board of Aldermen have been completed, and all debt issued and borrowing initiated to fund the projects is retired.

The Board of Aldermen will consider the recommendations by the Administrator regarding the proposed expiration of the TIF Plan and District along with amendments. The Board of Aldermen reserves the right to evaluate the TIF Plan every year following its adoption, and make any necessary modifications to the Plan to ensure that all goals and objectives are being met.

Upon full repayment of any outstanding bonds, all TIF Account Funds may be available for all District purposes, as outlined in, and approved by the Board of Aldermen as part of any modification to this Plan. The Annual Report prepared by the Administrator may recommend that a certain percentage of the tax increments may be returned to the City for general fund purposes, and Board of Aldermen approval for that allotment shall not be subject to a formal modification and public hearing process.

Apportionment of Captured Assessed Value

Pursuant to RSA 162-K:10 (a) this plan designates up to 100% of the captured assessed value will be dedicated for retirement of bonds and notes with a de-minimis portion going toward operations or further development of the tax increment financing district. This plan allows for the project to outline specifically how the TIF funds are used when presented for approval.

TIF District Administration

The City Economic Development Director shall be the Administrator of the District and act in with RSA 162-K:13, which prescribe the following duties and powers granted to the City Economic Development Director and it is generally understood the Administrator shall have the following powers:

- 1) Negotiate for the acquisition of real property or easements, and sign options and purchase and sales agreements to acquire said property or easements subject to final approval by the Board of Aldermen;
- 2) Enter into contracts for the construction of any of the facilities included in the development program
- 3) Negotiate and sign, upon the approval of the Board of Aldermen, any contracts relative to the design, engineering, construction or operations of any phase or component of the activities proposed under this Plan;
- 4) Apply for, and accept and execute, upon the approval of the Board of Aldermen, grants from any private or public organization or corporation, or from any state or federal agency for any work associated with this Plan;
- 5) Negotiate any Development Agreements and present the Agreements to the Board of Aldermen for final approval;
- 6) Certify to the Board of Aldermen, for acquisition through eminent domain, property that cannot be acquired by negotiation, but is required for implementation of the Plan; and
- 7) Certify to the Board of Aldermen the amount of funds, if any, which must be raised through the sale of bonds to finance the activities associated with this Plan.
- 8) Engage in any other administrative or ministerial duties necessary for implementation of the development plan and program as outlined.

The Board of Aldermen may grant through an affirmative vote of the Board of Aldermen, additional powers, as deemed necessary and appropriate, in order to implement the goals, purpose, work and improvements outlined in this Plan or any future amendment.

Advisory Board

In accordance with 162-K: 14, the Board of Aldermen through this Development Program and Financing Plan shall appoint the following Advisory Board Members: Managing Partner of Lansing Melbourne Group or his/her designee (Peter Flotz), Chair of Performing Arts Center Steering Committee (Rich Lannan), the Director of Economic Development (Tim Cummings), the Director of Community Development (Sarah Marchant) and the Treasurer (David Fredette) all for a one year term.

After the initial one year term members of the Advisory board shall be appointed by the Mayor and confirmed by the Board of Aldermen, for one year terms or until their successors are qualified, to advise the Mayor and district administrator on planning, construction and implementation of the development program and on the maintenance and operation of the district after the program has been completed.

The district administrator shall consult with the advisory board at least forty-five (45) days before implementation of a phase of the development program and the advisory board may appeal to the Board of Aldermen concerning a district administrator decision no later than thirty (30) days before a phase is to be implemented. Decisions of the District Administrator shall not be overturned except for abuse of discretion.

Annual Report

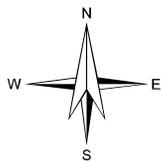
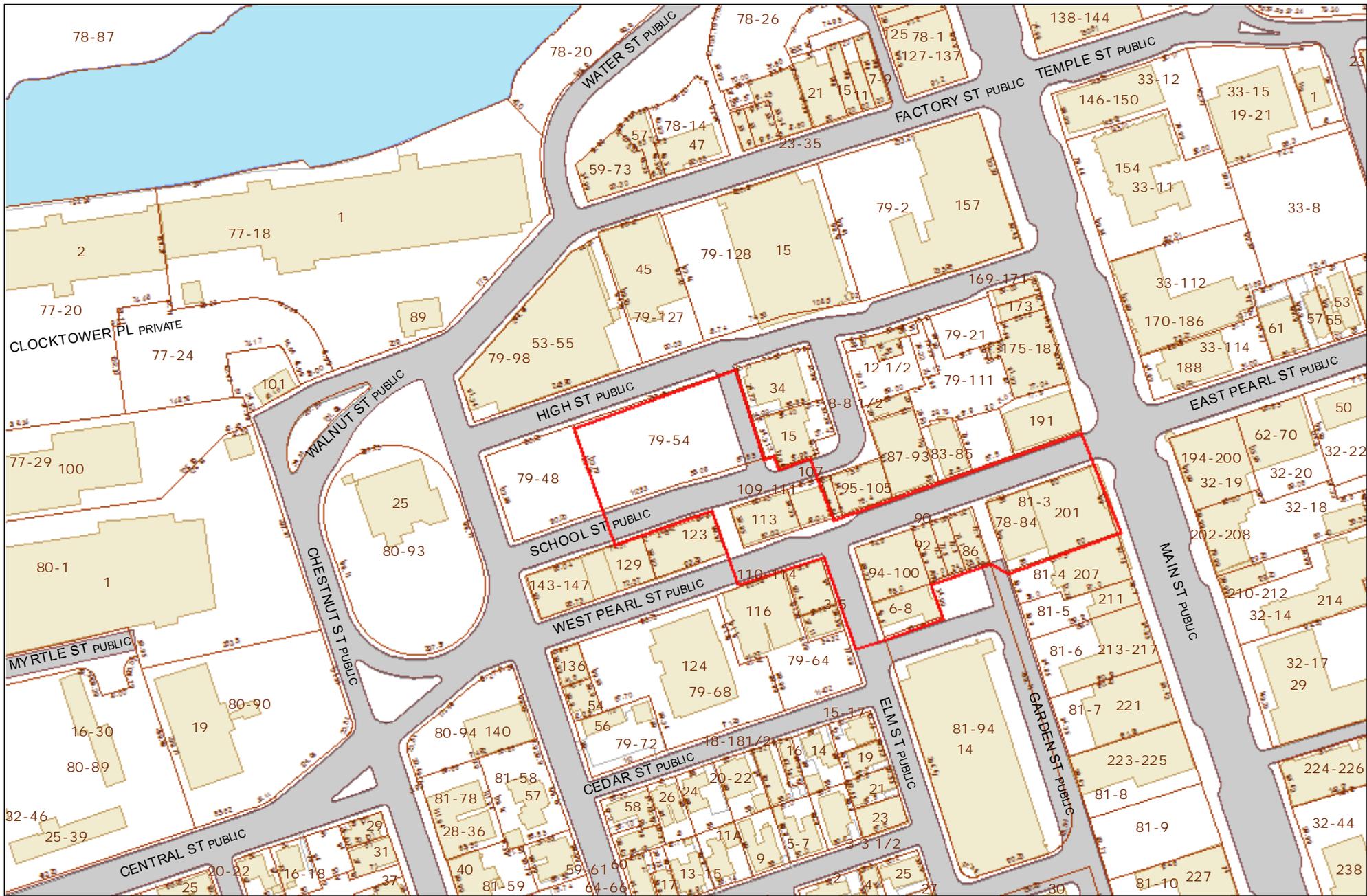
Pursuant to RSA 162-K:11, the City, by and through the Administrator of the District, in consultation with the Advisory Board, shall prepare an annual report containing the following:

- A Narrative Report on the status of the implementation of the Plan and a summary of the work that has been completed within the previous year;
- The amount and source of revenue of the District;
- The amount and purpose of expenditures;
- The amount of principal and interest on any outstanding bonded indebtedness;
- The original assessed value of the District;
- The captured assessed value retained by the District;
- The tax increments received; and
- Any additional information necessary to demonstrate compliance with the TIF Plan

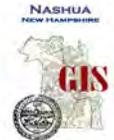
This is understood through an affirmative vote by the Board of Aldermen to Adopt the provisions of Chapter 162-K on November 24, 1998

Appendix A

District Boundary



TIF DISTRICT



Appendix B

2003 Downtown Master Plan



Nashua/New Hampshire

Nashua Downtown Master Plan

Prepared by U R B A N D E S I G N A S S O C I A T E S

Prepared for
City of Nashua, New Hampshire

May 2003



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Acknowledgements

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Special thanks to the countless Nashua residents, too many to name, who gave their time and energy to this effort.

Executive Summary



A Vision for the Next Five Years

Building upon existing investments and branching out from Main Street, Nashua will transform itself from having a notable Main Street to being a great Downtown.

Introduction

Nashua's history is its greatest amenity; it imbues the City with authenticity, character, and strength. Nashua's history is also its greatest teacher; its past teaches us powerful lessons about the importance of urban design. The Nashua Master Plan (the "Plan") strives to recognize and leverage these strengths while incorporating the needs and demands of a globally competitive 21st century city. The execution of this Plan will set Nashua apart from its regional competitors, assuring its health, vitality, and sustainability for generations to come.

Nashua New Hampshire is strategically located on the Nashua River, where water could power the textile mills. The 1823 Plan for the City, drawn by Asher Benjamin, established a remarkably powerful yet simple design concept for the City. The Olive Street Church and the Nashua Manufacturing Company were set on axis with each other, within walking distance, on opposite ends of Pearl Street. Storefronts and services for the town's people were located between these two landmarks. A longer avenue (the present Walnut Street) connected



the Mill to the “South Commons.” The first residential neighborhood was established between the South Commons and the Mill. On any given day, one could walk from the Commons, to work, to church, and to the stores lining Main Street.

The basic lessons from Benjamin’s plan were applied for nearly 100 years, until the 1960’s and 1970’s when its elegant urban design was compromised. In an attempt to save its Downtown, the City embarked on an ill-fated urban renewal program.

Throughout the 1980’s and 1990’s, thanks to grassroots organizing and one small intervention after another, Downtown re-established itself. Today, it is a generally accepted fact that Downtown Nashua has a “nice Main Street.” Sidewalks are lively, events well attended, and investment strong.

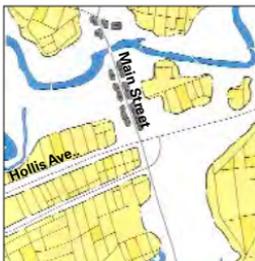
The general appearance of health however mask some problems. Behind Main Street, the many neighborhoods are fragmented and plagued by disinvestment. They are not connected physically or economically to each other or to Main Street. Furthermore, Main Street itself, south of City Hall, has been developed as a suburban commercial strip.

As one charrette participant stated: “We have a good Main Street; now we need a great Downtown.” The purpose of this Plan is to accomplish that task. It will do so by:

- 1 Celebrating Nashua’s primary amenity: Its heritage.** The clarity of

Asher Benjamin’s design has informed many aspects of this plan. Most notably, it serves as a constant reminder that great urban places encourage social interaction through a mix of uses, and that community building must be consciously designed to a human scale.

- 2 Strengthening Nashua’s most unrealized amenity: Its natural resources, especially the Nashua River.** Natural resources will act as a framework for the primary connections between neighborhoods and mixed use areas.



Downtown Today
A portion of Main Street is strong but many of the adjacent neighborhoods are fragmented and separated from this investment by busy arterial streets.



Downtown Tomorrow
Landmarks and public spaces are stitched together with trails and improved streets, thus strengthening the Downtown as a whole.

3 Representing a consensus vision for Nashua's future. The ideas and spirit of this document are a direct outgrowth of the intensity and passion Nashua's citizens have for their Downtown.

The Master Plan

The foundation of the Plan is public involvement. Extensive outreach was undertaken to insure that the Plan represents the ideas brought forth by the resi-



Concept Plan

Main Street will become a vibrant spine of mixed use activities connecting the natural resources of Salmon Creek and the Nashua River.

4



Concept Plan

Public and private initiatives along the Nashua River, Main Street, and in the neighborhoods will solidify Downtown Nashua as the heart of the region.

dents, stakeholders, investors, and leaders of the City. The public involvement process included twenty focus groups, three public meetings, and a four day public, open design charrette. In sum, over 200 individuals took part in the process.

A market study was conducted to establish the feasibility of residential and commercial markets within the five to ten-year time horizon of this Plan. The market study concluded that the residential market is, and will continue to be, Downtown's strongest market. Due to the narrow marketing and appeal of suburban housing, there is a pent up demand for a wider range of housing types and markets in Downtown Nashua, including condominiums and affordable housing. Another strong market is educational, cultural and institutional uses. These uses, though often

non-profit and sometimes subsidized, are critical to diversifying Downtown's offerings and to supporting Downtown retail. The office and hotel market were not seen as vibrant.

The market study and the public process both recommended that the City focus its efforts on initiatives that are inclusive of all residents of Nashua, not simply a narrow slice of the population. Although Main Street remains the focus of Downtown, many of the Plan's recommended actions concentrate on areas beyond the lively sidewalks of Main Street. Specifically, the Master Plan addresses areas along the Nashua River, Main Street South of City Hall, and areas to the east and west of Main Street. Design interventions at these areas are the key to broadening Downtown's appeal, maximizing its market potential,



*Riverfront North,
behind Cattleman's
Restaurant
(existing: top left)
(proposed: bottom left)*



*Aerial Perspective of
Downtown Nashua
(existing: top right)
(proposed initiatives
highlighted: bottom
right)*

and distinguishing it from other cities in the region.

Initiatives

Nashua has been successful in building on its strengths and finding ways to bring private, locally-based efforts together to create a whole that is greater than any single part. Main Street North between City Hall and the River is an example.

A vibrant Main Street has been created by

- public investments in streetscaping that improve the pedestrian experience
- private building renovations that build

upon the City's architectural character

- locally based investors and entrepreneurs willing to provide a product distinct from competing suburbs and malls.
- an aggressive and innovative schedule of events that showcase Nashua as the center of the region

Main Street North has become the anchor for a wide range of new uses that bundle restaurants, entertainment, and retail together as sustainable development in Downtown Nashua.

This Plan connects complimentary Downtown businesses and destinations



Riverfront West
Property located in the flood plain will be redeveloped into a riverfront park.

Riverfront West Existing Condition (top)



Riverfront West Proposed Redevelopment (bottom)

to create a series of initiatives around which different activities and developments are organized. Private efforts, along with public improvements and public/private partnerships have been formulated into five initiatives for the City:

- 1 Riverfront West
- 2 Riverfront East
- 3 Railroad Square
- 4 Main Street North
- 5 Main Street South

Frameworks

In order to support these five initiatives, the Plan recommends improving upon

and creating a series of frameworks that connect different parts of Downtown.

The frameworks, focusing on connectivity, are designed to:

- continually enhance the pedestrian experience on the streets of Downtown
- support and extend the system of bikeways and trails that link the areas of Downtown to each other, as well as the neighborhoods, and to the region's remarkable recreational and heritage amenities
- clarify pedestrian and vehicular circulation through an incremental process of converting one-way streets



Main Street South

New Streetscaping and redeveloped parking lots will transform Main Street South into a pedestrian friendly shopping street.

Existing Condition (top)



Proposed Redevelopment (bottom)

to two-way streets

- establish an alternative for the Broad Street Parkway that provides access to development parcels, connects the trail system, and improves congestion at Railroad Square
- create guidelines for architectural character consistent with the tradition of the City and the objectives of the Plan.

Implementation

The Plan will be implemented over 10 years. Upon completion, approximately 500 new residential units, and 500,000 new square feet of commercial/retail/office and institutional space will be added to Downtown Nashua. In addition, with construction of new riverfront parks, Performing Arts Center, Center for Nashua Heritage and Future Technology, regional and local trail connections, the Downtown will become the region's center for cultural, entertainment and recreational networks.

The primary projects to be completed within three years of adoption of this Plan will include

- Main Street South Streetscape (Design and Engineering)
- Bronstein Homes (Design and Hope VI Application)
- Broad Street Parkway (Design and Engineering)
- One Way Street Conversion Study
- Center for Nashua Heritage and Future Technology (fundraising)

Implementation of the Master Plan will create two legacies. The first legacy will be a completely revitalized Downtown with a diversified economy that benefits all residents of Nashua. Downtown Nashua will solidify itself as soul of the region; it will become an indispensable component to the region's superior quality of life.

Equally important to the historic legacy described above, will be the legacy of new partnerships and civic cooperation that are essential to and will result from implementation of this Plan. The Plan should not be thought of as simply a way to spend public resources - rather it should be thought of as a way to form partnerships, increase investor confidence, raise capital, with the purpose of leveraging public investments.

The ideas set forth in this Plan come from the vested interests of the City's diverse body of residents and investors. The realization of these ideas rely on a coordinated, cooperative and active public sector working in tandem with a entrepreneurial private sector. The results of this private-public partnership will be a lively and vibrant Downtown for all Nashuans; a place which embodies both its history as well as the future aspirations of the region.

Site Analysis



I X-Rays

A UDA X-RAY DRAWING ALLOWS the Design team to better understand the study area, as well as illustrating for city residents and stakeholders the myriad assets and natural patterns found throughout the City. An X-Ray drawing isolates a physical element or category of land use (such as streets) to illustrate patterns and opportunities difficult to perceive when combined in a single drawing. By studying the various natural and man-made systems, urban designers can unveil the underlying patterns, problems, and opportunities of a project area. Often, from these natural, historic, and development patterns, the beginnings of strategies and solutions emerge.

UDA X-Rays are drawn at several scales. By examining the site within the context of the region, city, and immediate study area, one can begin to see the physical forces that impact and influence it. In the case of Nashua's Downtown, X-Ray drawings at the regional scale illustrate the City's strategic location within the region, while X-Rays at the site scale depict the immediate patterns of the built and natural landscape within the boundaries of the City.

The study area for the Plan is centered on Main Street but extends east and west to include the adjacent neighborhoods and cross streets— the extent of the historic and traditional Downtown.



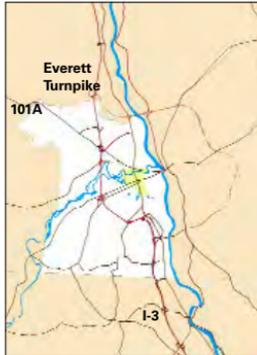
Regional Locator Map

(top left)
 Located just north of the Massachusetts state border, Nashua is the outermost major city in the Boston "commuter-shed."



Regional Natural Features

(bottom left)
 Located at the confluence of the Merrimack and Nashua rivers, the City is connected to watersheds and natural systems that reach out to the region in every direction.



Regional Highways

(top right)
 The City of Nashua is located at the convergence of several arterial roads, each well-connected to the Interstates.

Regional Streets

(bottom right)
 Main Street is one of only two surface road crossings of the Nashua River within the City. Downtown Nashua comprises a collection of colliding, irregular grids and connective arterial roads. The suburban street pattern, where most of the new growth has occurred in the last 10-20 years is distinctly different than the urban grid of the historic town.



Topography

(top left)

The Downtown gently slopes to the Nashua River from the south, with the land dropping more steeply to the river on its north side. The lowland stretching from the Nashua River to Salmon Brook represents unstable soils for development and has therefore historically been an industrial area.



Streets

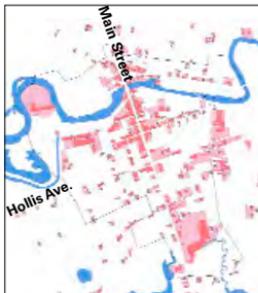
(top right)

The street framework of Downtown Nashua is comprised of several grids. South of the Nashua River, the grids are organized relative to Main Street. North of the river, the street grids respond to the several diagonal arterials that converge at Railroad Square.

Commercial

(middle left)

Main Street retail development north of Hollis Street is a relatively dense concentration of small-scale, street-oriented buildings that form pedestrian-scaled spaces. South of Hollis Street, the commercial buildings on Main Street are scaled to the automobile.



Building Footprint and Flood Plain

(middle right)

Downtown is generally comprised of medium-sized commercial buildings, small-scale residential buildings, and long, linear industrial buildings. Several of the original Nashua Manufacturing Company buildings, now converted to other uses, were originally built in the 100-year flood plain (shown in light blue)

Residential

(bottom left)

Many of the City's neighborhoods are intact; however, their edges are frayed. Nashua's neighborhoods engage neither the river, nor Main Street. .



Neighborhoods

(bottom right)

The neighborhoods of Downtown Nashua are delineated by the arterials and corridors that carry cross town traffic.

Institutions and Open Space

(top left)

The core of Downtown Nashua has many institutional buildings (purple) but no central park or public gathering space. The beginnings of a network of trails (red dots) follow the natural areas along the Nashua River and the abandoned rail line.



Parking

(bottom left)

Surface parking lots (light grey) are a dominant land use in much of Downtown. Only a few parking garages (dark grey) presently exist forcing much valuable Downtown real estate to be used as surface parking.



Industrial

(top right)

Industrial uses dominate the edges of the Nashua River and rail lines. Throughout the City, many of the former industrial uses have been converted to offices or commercial space.



Connectivity

(bottom right)

Despite having tight grids of streets and being located at the traditional center of the City, few streets extend beyond the Downtown.



II Precedents

THE BEST DESIGN SOLUTIONS emerge from the inherent patterns and vernacular of a region. Nashua is one of several Merrimack Valley river towns unique even within the greater region of which it is a part. Planned as settlements to support the textile manufacturing industry in New England in the early nineteenth century, Nashua and its sister cities along the Merrimack River are strikingly similar in their history and planning. By studying the original urban form and the redevelopment that has occurred along the Merrimack Valley as the economy and development base has changed over time, Nashua can develop strategies to root itself in its unique past while planning for an ever-changing future.

Other Merrimack Valley cities similar in both form and history to Nashua, such as Lowell, Lawrence, and Haverhill, provide precedents of exemplary spaces, development strategies, urban design approaches steeped in a similar regional flavor and industrial past.

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III Historic Analysis

ALTHOUGH DANIEL ABBOTT IS WIDELY REGARDED as the “Father of Nashua,” the area of the City now known as Downtown was designed by Asher Benjamin from 1824 through 1827. Primarily known for his use of the pattern book for residential design, Nashua was Benjamin’s only foray into town planning. Benjamin originally planned Nashua as an industrial town with an area for the region’s textile manufacturing on the river, drawing power for its operation from Mine Falls located three miles west. His ideas were utilitarian and simple. A north-south main street provided a bridge across the Nashua River at its north end, leading to Union Square, a public space and railroad depot known today as Railroad Square. A cross-axis was established along Factory Street, which defined the heart of the Downtown. At one end of the Factory Street axis stood the Olive Street Church, later Pilgrim Church; and at the other end, the great smoke stack of the Nashua Manufacturing Company. These simple but powerful urban relationships remained intact for over 150 years

The Olive Street Church, Asher Benjamin’s beautiful religious structure, defined the end of a visual axis between itself and the Nashua Manufacturing Company buildings.



After World War II, the integrity of Benjamin's plan began to erode. In 1984, the Pilgrim Church was demolished. Indian Head Plaza, a 6-story office building surrounded by parking, and a small park were built on the site of the Church. One of Nashua's landmarks was lost and Benjamin's plan was weakened.

Other changes since 1960 further affected the Downtown. Streets were vacated, traffic patterns changed, buildings demolished, and parking lots built in an effort to accommodate the automobile. These measures were ineffective in saving Downtown from its slide in the 1970's. Specifically, the Bronstein Apartments, Courthouse Oval, library development and Spring/Elm Street Parking lots, although well conceived, had negative urban design consequences.

Nashua weathered the 1980's and early 1990's with studies and projects that led to important public improvements and traditions, such as the distinctive brick sidewalks. Nashua's resurgence in the late 1990's is due in no small part to a revived appreciation for the City's heritage. This was confirmed in the public outreach effort, of this study, as it

became clear there was a strong understanding and stewardship of the history and heritage of Nashua. This public awareness has manifested itself in restored buildings, civic programming and events, such as the Holiday Stroll, vintage signage on private buildings, and historically-appropriate streetscaping. These actions have re-established a contemporary authenticity to the City, have created a sense of place, and have made Downtown Nashua a regional destination

16



Benjamin's Plan for Nashua

Asber Benjamin (bottom) created a plan for Nashua where axial relationships provided focus on prominent City structures. Pearl Street was bookended by the Nashua Manufacturing Company and the Olive Street Church, (later, Pilgrim Church). The Hunt Building terminates Main Street in the north.



Appreciation for local culture, as well as a focus on the City's new technological development will be featured in the proposed Center for Nashua Heritage and Future Technology, located on Factory Street and overlooking a new river-

front park. This museum will display Nashua's unique history as the foundation on which the City can meet the challenges of the future.



Changes since 1960

- 1 Bronstein Apartments** - Street vacated for public housing
- 2 Courthouse Oval** - Streets reconfigured into a confusing one-way system
- 3 Nashua Public Library** - Park Street vacated creating a block with poor access
- 4 Spring and Elm Streets** - Many buildings demolished for parking lots

The Planning Process



I Overview of the Process

PROMPTED BY A RECOMMENDATION in the Nashua 2000 Master Plan, the city of Nashua commissioned Urban Design Associates (UDA) to prepare a Downtown Master Plan in the summer of 2002. This Plan, an update of Nashua 2000 and will be based on public input, will act as a framework for future development and decision making and will provide guidance to the City in their efforts to:

- 1 Seek and evaluate development proposals, and
- 2 Prioritize public infrastructure investments.

The UDA team consisted of Urban Design Associates (lead firm), Glatting Jackson Kercher Anglin Lopez Rinehart (transportation planning) and Stuart Patz and Associates (market analysis). In addition, the UDA team relied heavily on the technical, institutional and organizational assistance of the City's Community Development Division and Public Works Division. The views and knowledge of city staff were integral in crafting this plan. Finally, and most importantly, the team relied on spirited and enthusiastic input from Nashua's residents and stakeholders.

Citizen participation, central to the planning process, was strong. In an effort to maximize public input, the planning team cast a wide net of outreach opportunities including inter-

Public Meetings

The Master Plan Team met with the citizens of Nashua to gather input and learn of their goals and vision for the City's future.



views, focus groups meetings, public meetings and open houses, culminating in a public design charrette.

Phase One: Data Gathering and Analysis

The UDA team began the planning process with a two-day data gathering trip to Nashua in August 2002. During this visit, the team conducted focus group meetings and interviews. In addition, the UDA team photographed the Downtown, and conducted site reconnaissance in order to become familiar with the region, Nashua, and especially its Downtown. At the same time, data was collected on land use, zoning, market research, and transportation. Additionally, the team documented precedents from similar Merrimack Valley river towns. (Lowell, Lawrence, and Haverhill.)

In September 2002, the UDA team traveled to Nashua for additional meetings. The purpose of this trip was to conduct a public meeting and additional focus group meetings.

The data gathering phase resulted in

an extensive set of UDA X-Ray drawings and precedent drawings that proved instrumental throughout the process.

Phase Two : Exploring Alternatives

The second phase of the project began with a work session in UDA's office in Pittsburgh. The UDA team and the City staff met to prepare for the design charrette. One result of the work session was a set of design principles.

The majority of Phase Two occurred during a week-long design charrette conducted on Main Street in Nashua at the former Goodale's Bike Shop. During the week, the focus groups reconvened, the Steering Committee met twice, and open houses were held. Concurrent with these meetings, the UDA team developed plans, tested ideas, and continuously revised and refined designs according to ongoing stakeholder and citizen input.

Phase Two of the process culminated in a public meeting on Thursday night at which the design for Downtown Nashua were presented and additional citizen input was collected.

Phase Three: Deciding

Based upon feedback from the public meeting and the Steering Committee, and the city staff, the UDA team prepared a draft plan for review and comment. This plan, upon adoption by the City, will become the blueprint for Downtown Nashua's development over the next ten years.

II Summary of Interviews and Focus Groups

THROUGHOUT THE FALL OF 2002, the UDA team conducted interviews and focus group meetings. Focus groups included:

City Planning Staff
Nashua Historical Society
Nashua Police Department
Nashua Fire Rescue
Aldermanic Planning & Economic Development Committee
Nashua Regional Planning Commission
Nashua Public Works Division
The Great American Downtown
Greater Nashua Chamber of Commerce
Downtown Ward Aldermen
Nashua Board of Aldermen

The UDA team also conducted individual interviews with:

Mayor Bernard A. Streeter
George Crombie, Director of the Public Works Division
Pastor Paul Berube, Grace Fellowship Church
Reverend Evans, First Congregational Church
Anne Barnett, French Hill Resident and Member of Inner City Voice
Grace Grogan-Hicks, Executive Director of Nashua Housing Authority
Klaas Nijhuis, Interim Director of Community Services Division
Angelo Marino, Manager of City Assessing Department



Design Charette
The Master Plan team worked closely with residents, stakeholders, and City staff.

Strengths, Weaknesses and Opportunities

At each focus group meeting, interview and public meeting, participants were asked the same three questions:

- 1 What are the strengths of Downtown Nashua?
- 2 What are the weaknesses of Downtown Nashua?
- 3 What is your vision for the future?

The Downtown assets considered strongest and cited most frequently related to its character and its sense of place created by the pedestrian-friendly environment on Main Street North.

The liabilities most often identified included the confusing, local one-way street system, the disconnect between the Downtown neighborhoods and Main Street, and the development along Main Street, south of Hollis Street.

Visions included a “complete” Downtown in which neighborhoods were connected to and interwoven with Downtown retail and institutions, the development of an expanded, connective riverfront park system, the addition of cultural and entertainment facilities, and an improved public transportation system.

The strengths, weaknesses, and visions are listed in more detail on this page and the following two pages.

Strengths

History

- Heritage of Nashua as one of the first planned industrial cities in the Northeast
- The preserved and rehabilitated buildings along Main Street of historic and/or local character

Main Street

- The walkable, vibrant, and safe environment between the Nashua River and City Hall
- New investments and restaurants creating an active sidewalk and street
- Variety of uses along this spine
- Strong sense of place rooted in traditional streetscape standards
- Locally owned and operated businesses – no national franchises



Strengths and Weaknesses

Main Street North is depicted in green, representing the Downtown's historic core and its strength. Shown in red, the Downtown's main weaknesses are its underutilized riverfront and the vacuous feel and uncoordinated planning of Main Street South.

Strengths (continued)

Amenities

- Riverfront park investments
- Library is a well-organized resource center for the City
- Multitude of churches and institutions
- Transit center
- Rail trail and other developing trail connections
- Low taxes

Weaknesses

Main Street

- Brick sidewalks showing signs of wear and disrepair
- South of Hollis Street is not pedestrian-friendly
- No major entertainment, performance, or educational uses
- No hotel or meeting conference spaces

- No central park or gathering space
- A lack of modestly priced goods and services

Streets and Parking

- One-way streets are confusing and detrimental to retail development
- Parking is not well managed; excess parking on west side; shortage on east side of Main Street
- Only one river crossing

General

- Downtown neighborhoods are detached from the retail district
- Parking along the river is a blight to this natural amenity.
- Spring and Elm Streets act as service roads for Downtown parking lots
- Spring and Elm Streets separate the adjacent neighborhoods from Main Street

Strength: The Nashua Public Library

Nashua's Library is an excellent resource; however, it suffers from poor visibility and access.



Weakness: Parking behind Main Street

The areas behind Main Street suffer from blight caused by poorly designed parking lots.

Visions

- A central park or gathering place
- A major riverfront park
- Diversity of uses Downtown – educational, arts, performance and cultural
- Further diversify Main Street with housing above retail buildings
- A coordinated parking strategy
- Continued support for local businesses versus national franchises
- “Downtown” to extend south to Main Street Marketplace and Salmon Brook
- Develop gateways to Downtown and a greater sense of arrival
- Retail for all incomes
- Commuter rail to Boston
- Extensive bike and trail system
- New housing; both affordable and market rate
- Improved public transportation
- Improved and revitalized Railroad

Square

Opportunities

Several opportunity areas emerged after mapping Downtown’s strengths and weaknesses. These strategic areas are the parts of Downtown where planning and taking action is most important and where benefits will be greatest. Generally, opportunity areas offer the chance to to bolster the identified strengths, eradicate identified weaknesses, and to implement citizen visions.

The primary strategic opportunity areas were identified as: (see map below left)

- 1 The corner of Main Street and Hollis Street
- 2 The Riverfront
- 3 Main Street South between Hollis Street and Allds Street
- 4 Spring and Elm Streets
- 5 The Millyard

Opportunities

The Master Plan establishes strategic locations in Downtown Nashua where design efforts will lead to further cultural and economic development.



Property Ownership

Many of the opportunity areas are owned by just a few parties. The City of Nashua is a primary owner of parcels in the Downtown, as depicted in blue.

III Urban Design Principles

THE UDA TEAM, in conjunction with city staff, developed several urban design principles prior to the design charrette. These principles acted as a compass for the direction of the Master Plan development. Design exploration at the charrette was pursued under the guidance of the following principles:

- 1 Preserve and celebrate the history of Nashua.
- 2 Reconnect Downtown to the surrounding neighborhoods.
- 3 Create a gathering place, a common, or a village green as the center of Downtown.
- 4 Connect to the regional open space system.
- 5 Calm and clarify traffic.
- 6 Develop a parking strategy for Downtown.
- 7 Develop urban design alternatives for the transitional areas behind Main Street.
- 8 Diversify Main Street to become a mixed-use corridor - including retail, offices, government, cultural experiences, housing, medical resources, hospitality centers, and entertainment uses.
- 9 Create an interconnected pedestrian friendly network.
- 10 Develop guidelines for appropriate massing and height.



Market Strategies



I Economic Development Strategies

GREAT DOWNTOWNS ARE DIVERSE. They center a region by serving a substantial list of needs for a variety of residents. With a stable and established Main Street North, Downtown Nashua must now diversify and expand its economic base by increasing investor confidence and by serving the needs of a broader cross-section of City residents.

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Downtown Nashua must also carefully market and position itself in the region. Downtown Nashua will never out-compete other market areas, such as Daniel Webster Highway and Route 101A for large-scale, discount retailers and rapid housing production. Instead of competing with these market areas, Downtown Nashua should create a lasting and unique identity for itself – an identity that cannot be replicated elsewhere in the region. Diversifying the Downtown economy by creating a “24-hour Downtown” and establishing unique markets based on sustainable strategies – not short term market trends – will be the key ingredients to a vital Downtown for years to come.

Downtown Retail

The continued, strategic revitalization of Main Street in its entirety, both north and south of Hollis Street, must be coordinated and is vital to the further growth of the Downtown.



II Residential Strategies

RESIDENTIAL DEMAND WILL LIKELY CONTINUE to be strong in the upcoming five to ten years. The City's population has doubled in forty years and grown approximately fifteen percent over the past ten years. Most of the residential growth has consisted of typical suburban single family housing on undeveloped land west of Everett Turnpike. The growth has served traditional suburban households (primarily married parents with school age children.) Ironically, despite the fact most of the new housing products in Nashua have catered to "traditional households", this household type represents only one quarter of the region's households. The other three quarters consist of mostly single persons living alone, single head of household with children or other dependents, or married couples with no children. These underserved markets are the household types that can be targeted for Downtown Nashua's housing.

Like many regions across the country that have funnelled their new housing construction to suburban areas, the demand for new construction housing in urban areas is very strong and relatively untapped. Thus there is strong market support for new housing in Downtown Nashua, targeted to a large market of "non-traditional" households.

Bronstein Apartments

The revitalization of this public housing area located near the heart of Downtown into a mixed-income community is a great opportunity for urban residential development.



First, there is an immediate demand for affordable housing. Downtown Nashua is the historic center of a fast-growing and affluent sub-region (consisting of Amherst, Brookline, Hollis, Hudson, Litchfield, etc.) With its plentiful supply of smaller and older homes, Downtown Nashua has experienced significant growth in the low and moderate income populations.

Second, there is an immediate demand for multi-family condominium housing in Downtown Nashua. Most of the region's low-income rental housing is in Downtown Nashua; as a result, owner-occupied housing is at a lower percentage than the rest of Nashua. The introduction of market rate condominium housing would bring stability to Downtown's housing stock and broaden the range of housing options.

The Master Plan identifies locations for affordable and market rate housing. The redevelopment of the publicly-owned Bronstein Apartments is a perfect opportunity for a mixed-income, urban development. Physically obsolete, Bronstein Apartments inefficiently and ineffectively occupies a key site in Downtown Nashua. The Master Plan proposes a redevelopment program of approximately 100 units (1/3 market-rate rental housing, 1/3 public housing, and 1/3 low income tax-credit housing). The

new development would be economically and physically integrated with the Tree Streets neighborhood and with Downtown Nashua. If the redevelopment site includes the County Health and Human Services Building, the new development can be built in phases without relocation of any of the current Bronstein Apartments' residents.

In addition the the Bronstien Homes there are other potential sites for affordable housing in Downtown Nashua. Apartment units atop first floor retail on Main Street as well as selected housing sites along Main Street South provide additional opprotunities for affordable housing.

New market rate condominium housing is also proposed in several locations. Riverfront West presents the strongest site for new housing. With ClockTower Place's conversion to housing in 1989, the first wave of "pioneers" settled in Downtown. Buildings in the Millyard and several Nashua Corporation buildings can be renovated to create unique housing opportunities in a unique urban setting. Overall, the Millyard and the Nashua Corporation buildings have the capacity to add up to 500 new units to Downtown Nashua.

III Retail and Entertainment Strategies

RETAIL DEVELOPMENT POTENTIAL IN DOWNTOWN NASHUA IS specialized and limited. Growth will depend largely upon growth in other sectors, such as housing and entertainment. Adding entertainment uses, recreational uses, regional attractions, educational uses, and other “off-hour” uses, will help sustain the existing retail demand and create critical mass for more retail opportunities.

Due to the regional concentration of discount retailers, and national chains in the suburbs, Downtown Nashua should not compete for such commercial development. Instead, Downtown Nashua should seek a competitive position in a specific retail market consisting of:

- Downtown neighborhood-serving retail
- Visitor and tourist-oriented retail
- Daytime retail supporting Downtown businesses
- Selected, specialized regional retail seeking an urban setting
- Retail serving the myriad uses proposed in the Master Plan such as performing arts, recreational, educational.

To this end, the Master Plan recommends creating a second retail node along Main Street South between Otterson Avenue and Salmon Brook Park. Anchored by the recently renovated Globe Plaza, now the Main Street Marketplace, the Main Street South retail node will complement, but not compete with Main Street North.

Retail and Entertainment

Continued infill initiatives and construction of new cultural, performance, and entertainment venues in the Downtown will provide nightlife to complement existing restaurants and attractions.



Entertainment

The Market Study concluded there is a need for better quality space to serve the existing performing arts market in the City. Currently, Nashua-area performance and arts groups are using several local facilities scattered around the City. In addition, there is a potential for a Downtown Performing Arts Center to compete for a regional performing arts market that is not currently attracted to the area. The market study recommends a new 400 to 500 seat Performing Arts Facility in downtown Nashua to be developed in the short term to meet the needs of arts groups attracting smaller audiences.

A larger facility (800-1000 seats) is not recommended because it will compete directly with several recently built, high quality facilities in surrounding communities. Construction of such a facility is significantly more expensive than a 400-seat venue, is dependent on touring acts, would be in direct competition with facilities in nearby cities, and perhaps most significant, is not needed for performing arts groups currently operating in Nashua, with the exception of the Nashua Symphony.

The Master Plan recommends 14 Court Street for development of the Performing Arts Center. The site will accommodate the recommended 400-

500 seat theatre (or a 1000-seat venue if the market changes in the next few years.)

Hotel

The Market Study concluded there is not currently a strong market for a hotel in Downtown Nashua due to lack of major room-night generators. The overall Nashua hotel market is currently soft because business travel is flat. Demand for a hotel will not likely emerge for at least three to five years.

The Market Study recommends long-term planning for a 75-room, limited service hotel that would serve the needs of business and leisure travelers to the Nashua area who prefer competitively-priced hotel accommodations located near Downtown restaurants and



The proposed hotel site is located adjacent to the Performing Arts Center and along the Nashua River.

shops, to rooms located along the Interstate. The Downtown hotel would be ideally located for parents visiting students attending Rivier College, for example, as well as for travelers visiting the Southern New Hampshire Medical Center. The proposed hotel and proposed Performing Arts Center could have a mutually beneficial relationship, as touring performers could stay at the hotel and weekend “get-away” cultural packages could be offered, linking Downtown restaurants, events at the Performing Arts Center, and hotel rooms. The suggested hotel concept would be an attractive, 4-to-5 story building with 70 to 75 standard guest rooms, a few suites, a boardroom, and an exercise room.

Initiative Areas and Opportunities



I Introduction

THE MASTER PLAN RELIES ON A BUNDLE of strategies that work together to knit Nashua's Downtown into a single, cohesive whole. These strategies, in the form of five initiatives (see map below), build upon the strengths and alleviate the weaknesses of the Downtown. Together, these five initiatives will help Downtown transform itself from a good Main Street to a great Downtown. These strategies are illustrated and described in the following five chapters.

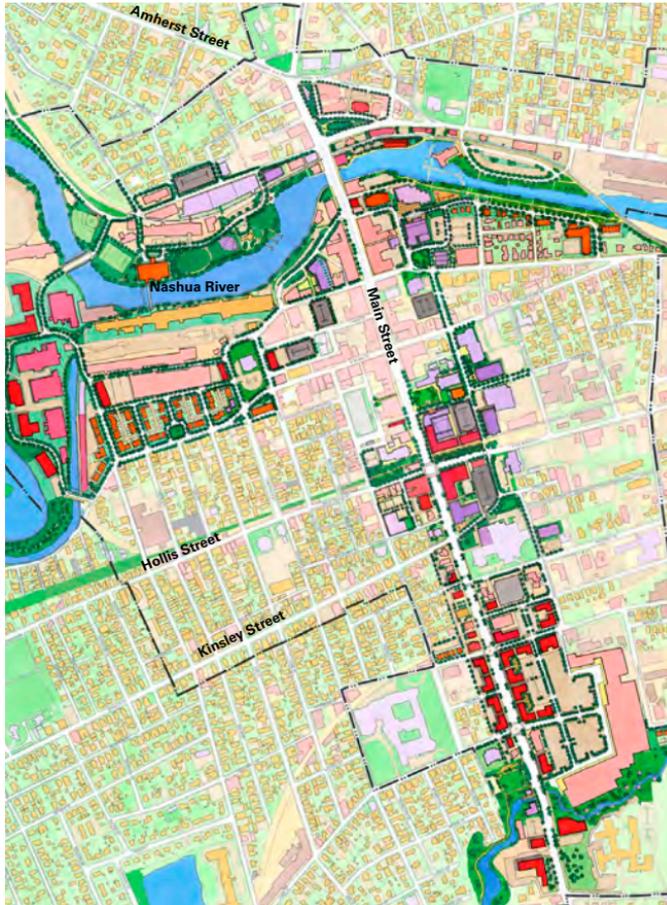
To be successful, it is imperative that the streets, parks and other public infrastructure be improved simultaneously with the development proposed in each initiative area.

Initiative areas



Master Plan

The Master Plan is comprised of many initiatives throughout Downtown. Implementation will help transform Downtown from a good Main Street to a great Downtown.



II Riverfront West

THE TERM "RIVERFRONT WEST" DOES NOT currently exist in the 36 everyday language of Nashua residents. Historically, the Nashua River was both the engine and the sewer for industry. Only in recent years has the City begun to look at its rivers and riverfronts as opportunities for non-industrial, private investment and more importantly, for "quality of life" public investments in parks.

With only one river crossing and the historic pattern of "backing buildings onto" the river, the two sides of the Nashua River have always been viewed as separate places. The Riverfront initiatives seek to develop the river as the connector for a



Riverfront West



single, mixed-use community.

In order to harness the power of the river to drive the Mill's turbines, many of Nashua's oldest industrial buildings were located in the flood plain. Those that have been redeveloped have sealed off their lower floors to protect against flooding. Building new, habitable buildings in the flood plain is not feasible.

Therefore, the Master Plan uses the flood plain delineation for guidance as to where buildings can and cannot be located. A riverfront park becomes the "highest and best use" for the flood plain. This proposed riverfront park will become one of Nashua's most valuable investments.



Initiatives

- A** Riverfront West Park
- B** Nashua Corporation Buildings
- C** Broad Street Parkway
- D** Redeveloped Millyard
- E** Redeveloped Bronstein Apartments
- F** Reconfigured Courthouse Oval
- G** The Center for Nashua Heritage and Future Technology



Flood Plain

Many of the buildings in the proposed Riverfront West area are located in the flood plain (shown in light blue).

Riverfront West Park

Much of the land on the north bank of the Nashua River is in the flood plain. These parcels of land can become the jewel and center of Nashua's riverfront park system. The park should include both active and passive uses, including play fields and an outdoor amphitheater. All new development in the flood plain are event oriented structures not subject

to flood plain regulations for habitable structures. Front Street will become a park drive and the new front door to fully redeveloped Nashua Corporation buildings. The regional trail system should be incorporated in the park.

On the south bank of the river, Le Parc de Notre Renaissance Francaise should be improved. The Water Street ramp currently looms over this park,



Riverfront West Park

(top)
The flood plain will be converted into the City's largest Downtown open space, as well as being connected to the greater regional park system.



Clock tower Place

(middle)
Renovating more industrial buildings, like Clock tower Place, will enliven this area of Downtown with new residents.



Water Street Ramp

Le Parc de Notre Renaissance Francaise can be improved by eliminating one row of parking (existing, bottom left) and creating a screen of landscape (proposed, bottom right).

detracting from its beauty. A row of perpendicular parking should be removed and replaced with a row of parallel parking in order to provide a planting strip to mask the base of the ramp.

Redevelopment of Nashua Corporation Property and Buildings

Further adaptive reuse of the historic Nashua Corporation buildings will require improved access and replacement parking. The Master Plan proposes extending Front Street as a park drive for the new Riverfront West Park which will allow the Nashua Corporation buildings to reorient themselves to the river, taking advantage of a new park address.

The Master Plan also identifies four optional locations for a parking garage serving the former Nashua Corporation. The preferred location is adjacent to the Nashua Corporation buildings, across Franklin Street. This parking garage could be shared with businesses at Railroad Square and adjacent to the Main Street bridge.

All four sites for the parking garage should be more thoroughly studied by

the City. The garage must achieve the following objectives:

- facilitate redevelopment of Nashua Corporation buildings
- accommodate parking needs of businesses at Railroad Square
- introduce minimal negative impacts on surrounding neighborhoods
- have multiple access and egress points
- minimize the negative impact on Railroad Square traffic flow
- minimize property acquisition, especially that of affordable housing.

Broad Street Parkway

Directly serving this area of Downtown, the Broad Street Parkway must fulfill a number of needs:

- provide access to important redevelopment sites
- become a development address
- address issues of air quality by improving traffic congestion at Railroad Square
- serve as a framework for a trail con-



Four potential sites for parking garage

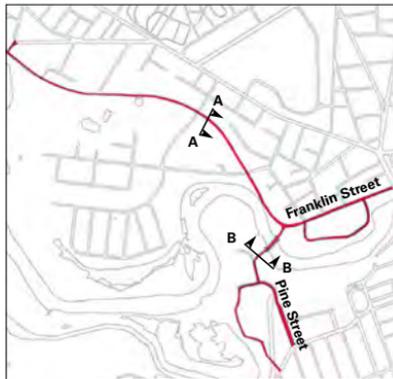
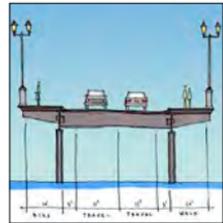
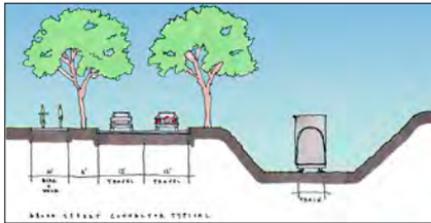
nections

- not a Downtown bypass

The Master Plan recommends the Broad Street Parkway connect to Franklin Street as well as the Milliard. This alignment will route through-traffic directly across Railroad Square, thereby alleviating the cumbersome dogleg movement that currently exists.

In addition, and equally important, the Broad Street Parkway will have a small, two-lane bridge providing direct access to the Milliard. The bridge connection will link into an extension of Pine Street which in turn will provide access to Downtown via Central Street. This bridge connection will also provide a trail crossing from one side of the Nashua River to the other. (Additional

40



Broad Street Parkway

The preferred alternative for the Broad Street Parkway (left) will provide access to redevelopment opportunities, as well as reduce congestion at Railroad Square.

Recommended cross-section (section A-A) (top left)

Recommended cross-section at the new bridge (section B-B) (top right)

discussion of the Broad Street Parkway is located in the Transportation Appendix.)

Bronstein Apartments

Currently an inward facing public housing project, the Master Plan proposes a transformation of the 48 units of public housing into a 100-unit, mixed-income, mixed-financed neighborhood. The orientation and condition of the existing units are such that rehabilitation or modernization will provide only marginal improvements in the quality of life.

The Master Plan proposes extending Palm Street, Ash Street, Vine Street, and Chestnut Street through the Bronstein site to an extended Myrtle Street. Four simple, developable blocks are thus created for medium-density housing. The County Health and Human Services building would be moved from its current location, and the block would be used for additional housing, providing a new front door to this Downtown site. A small park, central to the new housing would be built which would be an amenity for the Tree Streets Neighbor-

hood linking the new housing to the existing neighborhood. The redevelopment of Bronstein Apartments could be phased and implemented without relocating any of the existing residents.

Millyard Redevelopment

The Millyard represents one of Downtown's most promising redevelopment possibilities. The Millyard possesses a rich mix of industrial buildings and proximity to urban amenities. It is a prime location to create living-wage jobs along with loft housing and live/work units.

In addition to rehabilitating the existing structures, several sites have been identified for new construction. The extension of Pine Street and a new loop



Bronstein Apartments
Illustrative Plan of
Bronstein Apartments
(top)



Proposed view of the redeveloped Bronstein Apartments along Central Street (bottom)

road will access these sites and create a connection to Mine Falls Park. Redevelopment of the Millyard will create multiple trail connections between Main Street and Mine Falls Park.

Courthouse Oval and Other Street Improvements

The Master Plan recommends several simple but important changes to the street system. The original Plan for Nashua, established by Asher Benjamin between 1824 and 1827, created a strong relationship between the Millyard and Main Street. Factory and Pearl Streets connected the two areas of Downtown.

Over time, however, that relationship has eroded. One-way streets, traffic ovals, and inward-facing development have all but rendered the Millyards and Main Street as separate districts.

The Master Plan seeks to re-establish this direct relationship with revised street connections and modifications. Most importantly, the traffic oval around the County Courthouse should be removed and replaced with two-way streets. Two additional development sites are identified, as well, east and west of the current Courthouse.

Central Street, Pearl Street, and Factory Street should also be converted to two-way streets. (Additional discussion of one-way street conversion is found in the Frameworks section and the Transportation Appendix).

The Center for Nashua Heritage and Future Technology

The Center for Nashua Heritage and Future Technology is proposed along Factory Street. This 40,000 sq..ft. museum and learning center will become



Illustrative Plan of Millyard redevelopment; new buildings in dark red (far left)

The Center for Nashua Heritage and Future Technology, in purple (left)

a major attraction for Nashua. The museum will showcase Nashua's strong industrial heritage as well as provide interactive areas for learning the new technologies being developed in the Region. The recommended site, between Factory and Water Street, is a strategic Downtown site perfect for this facility. Located less than a block from Main Street, the museum and learning center will have a Main Street presence without occupying valuable Main Street retail frontage. The building will face both Factory Street and Water Street. Its front on Factory Street will help re-establish Benjamin's historic axial relationship that once existed between the Olive Street

Church and the Millyard.

The facility will benefit from an existing parking garage located directly across Factory Street. An additional level may need to be added to this garage to accommodate museum visitors as well as to absorb the loss of parking that currently exists on the proposed museum site.

As a "through-block" building, the museum should provide in its design open, public access between Water Street and Factory Street. Another access point between Le Parc de Notre Renaissance Francaise and Factory Street will further aid pedestrian circulation.

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Existing Park: Le Parc de Notre Renaissance Francaise and Nashua River (top)



Proposed Riverfront West Park on the north bank of the Nashua River (bottom)

III Riverfront East

RIVERFRONT EAST PRESENTS A DIFFERENT experience and opportunity than Riverfront West. The riverbanks are steeper, and the river is more narrow. The crashing waterfall of Riverfront East contrasts with the tranquility of the wetland pockets at Riverfront West.

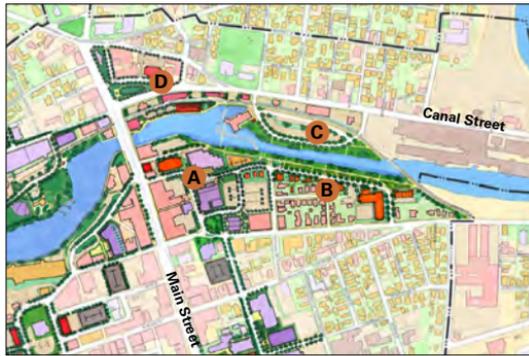


Riverfront East



There are, however, similarities. Like Riverfront West, Riverfront East is proposed to become a single place on both sides of the river with the river as the focus. The current trails are discontinuous, inaccessible, and perceived as dangerous. Many of the buildings back onto the river with parking lots, service alleys, and backyards.

45

**Initiatives**

- A** Library and Performing Arts Center
- B** New Temple Street neighborhood housing and Riverfront Park
- C** Riverfront East Park
- D** Railroad Square revitalization

Riverfront East Park

A new riverfront park is proposed along both sides of the river. The park will be narrow and linear. It will be active with trails but not with recreation areas. The dam and the railroad bridge should be developed with pedestrian and bike trails. The trail on the south side of the Nashua River should be improved with additional connections to an extended Park Street and selective clearing of trees and shrubbery.

The large parking lot between Canal Street and the Nashua River should be improved to be more appropriate for a riverfront and park setting. A parking lot will remain for BAE Systems and other businesses along Canal Street and Railroad Square. A pedestrian bridge built atop the existing dam would connect this parking resource to the south side of the River - particularly to the proposed Performing Art Center at 14 Court Street. The parking lot could be shared by park users on weekends. A trail head for the



Illustrative Plan of Riverfront East Park (top)



Existing section of north bank of Nashua River (middle)



Proposed section of north bank of Nashua River (bottom)

park system and regional trail system should be developed at this location.

The rail right-of-way along the north side of the Nashua River can be utilized for a trail connection between the bridge and Riverfront West park, but can also be used as a connection between Railroad Square and a future commuter rail station, proposed to be located in the vicinity of East Hollis Street near the Merrimack River. This rail line is currently active (with extremely light use) providing rail access to towns west of Nashua. redevelopment of the rail line and areas around the rail line would have to be consistent with continued use of the rail line.

Nashua Public Library and The Performing Arts Center

The Nashua Public Library is a valuable resource for the City. It is the most active library in northern New England. As an important cultural resource, however, it suffers from inaccessibility and a lack of defined parking. The Master Plan proposes an extension of Park Street between 14 Court Street and the Library along the riverfront to Temple Street. This new road will provide a common front door and entry sequence for both the Library and 14 Court Street, at the terminus of the Spring Street Institutional and Cultural Spine.

14 Court Street should be redeveloped as the proposed Performing Arts Center. Whereas there are no high quality facilities for Performing Arts in Nashua, the nearby cities of Portsmouth,

Keene, and Manchester have quality venues for audiences of approximately 850.

There is a market in Nashua for a 400 seat facility. However this size could increase anywhere from 400 to 1000 seats if justified by the market, community interest, funding, and the needs of performance groups within the City.

The construction of a facility of this size was analyzed in depth in a previous Performing Arts Feasibility Study. The issues surrounding this cultural development are discussed in the Market Study Appendix of this report. The 14 Court Street location for the Performing Arts Center is recommended by both the previous study and this Master Plan, however, is agreed upon between the Feasibility Study and this Master Plan, as an appropriately prominent site within walking distance of Main Street.

Parking resources will need to be created for a new Performing Arts Center.



Illustrative Plan of the proposed street and plaza between the Performing Arts Center and Nashua Public Library

A new parking garage may have to be built to support this facility. A site along Spring Street, just south of Temple Street, is recommended. The BAE Systems parking lot, located on the north side of the river should be considered a parking resource for the Performing Arts Center. If the dam structure is modified to contain a pedestrian walk, the BAE Parking lot will be less than a five minute walk from the Performing Art Center.

Temple Street Neighborhood

The Temple Street neighborhood should be extended to include new housing along an extended Park Street. The new housing would overlook the Riverfront East trail and park. As Park Street is extended along the river to Temple Street, a site for a new 100-unit senior/elderly building is proposed. Creating a new riverfront drive will be a great new address and will be an important component to improving visibility and visitability to the park.



Illustrative plan of Riverfront East (top)

Existing section of south bank of Nashua River (middle)

Proposed section of south bank of Nashua River (bottom)





Existing rail right of way behind Cattleman's (top) 49

Proposed rail right of way, redevelopment and trail connection (bottom)



IV Railroad Square

RAILROAD SQUARE IS AN urban design landmark located at the confluence of four regional arterials. With four high-volume arterials converging into a small area bound on one side by water, Railroad Square performs admirably, as it delicately balances the heavy impacts of regional through-traffic on all four arterials with an environment that is surprisingly pedestrian-friendly. The challenge of Railroad Square will be to establish it as Main Street's northernmost retail node, while maintaining its status as an historic pedestrian-friendly place. 50



Railroad Square



Development Opportunities

Most of the buildings on Railroad Square are worthy of preservation. While several buildings may be renovated, one site is identified for new construction. It is important that new construction as well as renovation adhere to strict architectural design guidelines, based on Nashua's historic architectural traditions.

The most important renovation project will be the Laton Hotel. Specifically, the striking double-level porch should be restored.

In order for Railroad Square to realize its potential as Main Street's northernmost retail node, additional parking resources will be required. The Master Plan identifies four possible locations for parking structures that could serve the businesses at Railroad Square, as well as other uses.

Veterans Park

If a new parking structure is built for Railroad Square businesses, the parking lot defining the north edge of Deschene's should be rebuilt as a through lane with on-street parking. It should be built as narrow as possible to discourage cut-through traffic, yet define the park more clearly and publicly.



Laton Hotel

The full front porch of the Laton Hotel should be restored to its original elegance.



Riverfront West and Railroad Square Parking

Four potential sites for a parking structure are identified (as dotted boxes). The structure must serve both the redevelopment of the Nashua Corporation buildings, as well as Railroad Square.

v Main Street North

MAIN STREET NORTH is healthy. Also referred to as “walking Main Street”, there are almost no retail vacancies, sidewalks are active, and there is a vibrant mix of retail, offices and restaurants. Behind Main Street on both sides, however, significant attention is required. The seam between the neighborhoods and Main Street North is ragged. Spring Street and Elm Street are characterized by disinvestment, surface parking lots, and unpaired and confusing one-way streets.

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Main Street North





Main Street North

- A** *Main Street North Streetscaping*
- B** *Relocation of Joanne's Kitchen*
- C** *Spring Street Institutional Spine*
- D** *Citizen's Bank site*
- E** *New Nashua Commons*
- F** *SENHMC expansion*
- G** *Redevelopment of existing buildings*



Streetscaping

Maintenance and upgrades to the streetscape of Main Street is critical. Begun in the early 1980's, the streetscape program has been a great success. The comfortably wide sidewalks, warm red bricks, and the canopy of street trees create a pedestrian environment that has been instrumental in Main Street's resurgence over the past 15 years. However,



Main Street North

some sidewalk bricks have been dislodged and many of the street furnishings are either historically inappropriate, poorly located, or in general disrepair.

Basic upkeep and selective improvements to the streetscape on Main Street North are as critical today as the introduction of these standards 20 years ago. If the public sector falls behind in its responsibility, the private sector will not

re-invest. The Master Plan therefore recommends pursuing a responsible maintenance and upgrade program for streetscaping on Main Street North as an early action item for the City. At a minimum, “responsible maintenance” should include annual inspection of sidewalk

conditions following the spring thaw and immediate replacement of damaged pavers. In addition, the City should consider utilizing a more delicate sidewalk sweeper, one that does not damage the pavers as it cleans them.

Benches

Several benches along Main Street are poorly located. Benches that face traffic or are located in the middle of sidewalks are rarely used. Where possible, benches should either be paired, facing each other, or they should be located with their backs to storefronts.



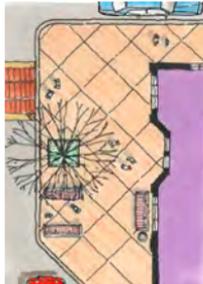
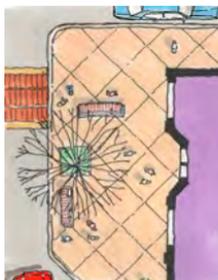
Pavers and grates on Main Street in need of replacement



Diagrams

Inappropriate bench location (below left)

Appropriate bench location (below right)



Pedestrian Connectivity

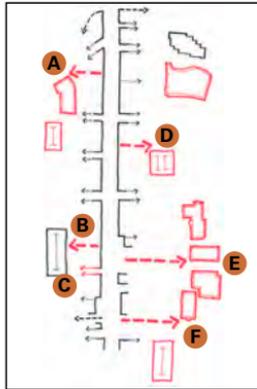
The Library Walk is a great success. It provides pedestrian access through Nashua's long blocks to destinations located one block behind Main Street. More such connections are required in order to connect and stimulate investment along Spring and Elm Streets.

The Master Plan recommends creating five additional through-block pedestrian connections: two on the interior of buildings, and three exterior. The exterior pedestrian paths should be public, well-lit, and modeled after the successful Library Walk. The interior paths require partnerships with private building owners. They should be integrated with the interior circulation through a lobby or public corridor.

Hollis and Main Street Intersection: The Region's 100% Corner

There is no more important intersection to redevelop in Nashua than the intersection of Hollis and Main Streets. The intersection is the region's "100% corner," as it creates gateways to Main Street from the east and west and south.

All four corners of this intersection are currently underutilized and underperforming. In a City with limited available land and relatively low-scale buildings, three of the four corners present opportunities to add significant square footage to the Downtown inventory of office, retail, institutional, and cultural space without creating an inappropriately sized building. Downtown's largest new buildings should be sited at



- A** Through an existing building
- B** In place of the relocated Joanne's Kitchen
- C** A new lane beside relocated parking
- D** Along side of the church
- E** Through new Downtown common
- F** An extension of the rail trail

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New Pedestrian Connections

Several new pedestrian connections (similar to Library Walk and shown in red) should be created to improve the permeability of Main Street's long blocks.



this intersection. A series of distinct, 4- to 6-story, mixed-use buildings would create a center to the Downtown. They would anchor both ends of Main Street by creating a strong center, and transform an anonymous intersection into the region's symbolic heart.

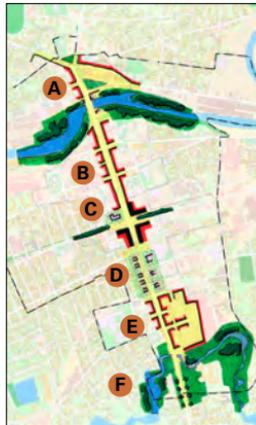
Citizen's Bank Site

The most important site at Nashua's 100% intersection is the northeast corner of Hollis and Main Streets - commonly referred to as the Citizen's Bank site. This site has an address on two of the busiest arterials in Nashua (Main Street and Hollis) and is a gateway to the Downtown. Additionally, with the Main Street Marketplace under reconstruction, it is the largest remaining developable site fronting Main Street. The long term redevelopment of the Citizen's Bank site must establish the standard for all other development in Nashua because it is a front door to the region. It should leave a positive legacy for years to come.

Hollis and Main Street: The region's 100% Corner



In December 2002, Citizen's Bank secured approval for plans to build a single story bank with drive through facilities. This building should be considered an interim solution for this important



Main Street as a Series of Rooms

The entire length of Main Street should be designed as a series of rooms and experiences, not as a single monolithic avenue.

- A** Railroad Square
- B** Main Street North
- C** 100% Corner: Hollis Main Street Intersection
- D** Transitional area: Hollis to Otterton Streets
- E** Secondary retail node: Main Street marketplace
- F** Southern Gateway: Salmon Brook



The intersection of Hollis and Main Streets as it exists today: an under-developed intersection dominated by high volumes of through traffic.

site. When market forces dictate redevelopment of the site, the City should partner with Citizen's bank to create a legacy project.

The public outreach process and the market study both conclude that this site would be best developed as a mix of uses, including a ground floor bank, and anchored by an institutional use such as a downtown campus for an area college. Such a use would bring a diverse group of people into the area at all hours, enforcing the desire of developing Nashua as a "24-hour city".

As an educational building, classrooms would occupy the upper floors of the buildings with Main Street retail at the ground level. This configuration allows for active, pedestrian-oriented uses on the street to add to the already healthy street-life on Main Street North. Also, providing for retail uses on the ground level allows for businesses and restaurants to be open and active after office hours.

The site north of the Citizen's Bank site can also be integrated into an

amenity for Main Street. The potential relocation of Saint Patrick's gymnasium to Spring Street provides a proper civic greenspace for the City of Nashua. The desire for outdoor, public space is great in the City, and this resource would provide a new "Commons" for Nashua.

Southeast Corner of Hollis Street and Main Street

To truly create a 100% corner at Hollis and Main, the southeast corner of the intersection should also be a redevelopment opportunity. At present, this site houses a service station, a drugstore, a few miscellaneous businesses and restaurants, and surface parking for Southeast New Hampshire Medical Center (SENHMC). Constitution Plaza occupies the other corner of the site, that of Main and Kinsley Streets, though few would know it is there amidst the uncoordinated land uses. The proposed building configurations will not only define the corner of Hollis and Main Streets as a gateway, but with ground floor retail uses they will encourage pedestrian-oriented street-life.



*Citizen's Bank Site,
Short Term Vision: A
bank with a drive
through facility. (left)*

*Citizen's Bank Site,
Long Term Vision:
Redevelopment as an
Educational Complex
with ground floor retail
and Main Street
Commons (right)*

The proposed buildings would have retail businesses at street level with offices above. The offices could be used by the hospital, or physicians offices, or other businesses seeking office space in the heart of Downtown.

At the easternmost part of the block, a parking garage is proposed to accommodate current parking needs for SENHMC as well as addressing parking requirements of other uses on the block. And most importantly, Constitution Plaza will be surrounded by public uses to provide a more defined, proper environment for community gathering.

Parking Strategy

Easy access to parking was identified by many as a problem in Downtown Nashua. Currently, there are approximately 3,500 parking spaces and 850,000 square feet of retail/office/commercial space in Downtown. This is over 4 spaces per 1000 square feet - a more than adequate supply for an downtown that aspires to be pedestrian friendly, mixed use, dense and urban so supply is not the problem.



Illustrative Plan of a redeveloped Hollis and Main Street intersection

Analysis and public testimony support the fact that there is not a shortage of parking, but rather that the existing parking supply is not well-managed, coordinated or visible. Therefore, simply providing more parking would not only fail to solve the parking problem, but it would conceivably create additional problems in Downtown.

Parking issues should be addressed on two fronts. First, the current parking resources should be better organized and managed. Second, new parking should be carefully and selectively added to proper

Existing conditions at Hollis Street and Main Street



Proposed redevelopment of Hollis Street and Main Street



locations when it is needed. Determination of need should consider issues such as the deleterious effect of excess parking, the potential impacts on surrounding properties, and the need to create a dense unique urban environment for Downtown.

Parking Management

Currently the 3,500 parking spaces downtown are scattered throughout downtown in private and public lots, large and small lots, metered and free lots, on streets, and in public and private structures. Existing parking resources must be more effectively managed. This should be a priority, initially, over building more spaces.

As an inexpensive first step, the City should implement a wayfinding and signage system to help visitors to Downtown have better access to the City's parking supply. In addition, parking lots and sidewalks should be designed with comfortable pathways, trees, and lighting in order to maximize their use.

A second step should be to organize and manage the current parking space - both public and private. Metered spaces should be used for short-term parking. They should be the most expensive cost to park per hour, and have a limit of two hours. Because they are the most accessible and important to retail, the metered spaces should encourage a high turnover of users.

The parking garages should be used by employees and for longer-term parking. Upper floors of garages, the least

convenient spaces, should be reserved for employees who park all day. They can be leased out to business owners, thereby freeing up their on-site spaces and street spaces for customers. Lower levels of garages should be used for both long term and short term parking.

Shared Parking and Partnerships

The City should enter into discussions with owners of large parking lots and parking structures (SENHMC, BAE Systems, Indian Head Plaza, etc) in order to allow these facilities to be used at "non peak" times.

For example, the Performing Arts Center (PAC) may require very little new parking if the unused evening capacity of the BAE parking lot (connected to the PAC with a walkway atop the dam) and the Indian Head Plaza are utilized. Both are within a five minute walk of the proposed PAC.

Surface Parking

Limited surface parking located on street or in small lots is important for retailers in Downtown Nashua. The spaces are easy to use, have a rapid turnover, and are readily accessible in small lots, behind buildings or mid-block. They lots should be well-designed and have clear pedestrian connections to sidewalks and paths.

Many of downtown Nashua's parking spaces are scattered throughout the downtown in small and large lots. The dozens of small parking lots provide an efficiency and efficacy that belies their size. Many smaller lots, tucked away and

behind buildings, are more effective and efficient than fewer larger lots, but the location and availability may be difficult to discern for visitors.

On-street parking should be introduced wherever possible. If peak hour traffic flow is an issue, parking can be prohibited during rush hours. Cars parked on the street provide convenient short-term parking as well as acting as a traffic calming barrier between cars and pedestrians.

Parking Garages

No new parking garages are immediately needed. There is adequate parking to serve today's inventory of occupied commercial/office/retail space as well as to absorb the current vacancies (approx-

mately 200,000 sq.-ft. of commercial/office/retail space). However, implementation of the Master Plan will further intensify downtown uses and necessitate the conversion of some surface lots to structured lots. The Master Plan proposes five potential sites for parking garages. These new parking garages, combined with the three existing garages will adequately serve downtown upon build-out. The proposed locations will correspond with places where there is a current parking deficit, or where new development will generate future parking demand. With two garages currently located on the west side of Main Street, priority should be given to a new structure on the east side of Main Street. Any new parking facility should be matched with a private sector initiative. Parking should be shared to balance the daytime and evening uses.

Spring Street Institutional Spine

The Master Plan proposes Spring Street as an institutional spine. Currently several public buildings are located along Spring Street. However, they are not connected to each other or related to Main Street or the neighborhoods.

Parking Strategy

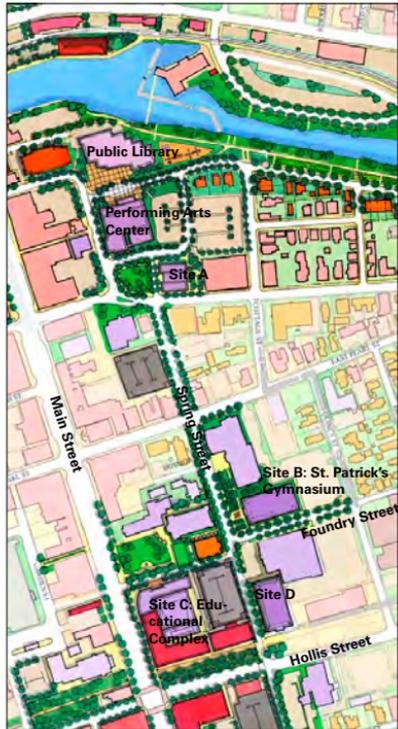
Upon completion of the proposed garages, the Downtown core will be well served with parking, as denoted by five minute walking radii. (left)

A well-defined parking lot in the heart of Lowell, Massachusetts illustrates that small, surface parking areas can be tucked in and around buildings and landscaped creating a pleasant street wall. (right)



A streetscaping program will create an appropriate setting for the five public buildings located on Spring Street.

Also, four additional sites along Spring Street have been identified for public buildings. One of the sites could be used for the relocation of Saint Patrick's Gymnasium from Main Street. Moving the gymnasium to this site maintains the facility's adjacency to the parish but rebuilds it on a more appropriate site and frees up the Main Street site for a town green, or Commons.



Spring Street
Institutional Spine
Anchored on the north by the Performing Arts Center, an improved Spring Street is an ideal address for civic and public buildings.

VI Main Street South

MAIN STREET SOUTH – or “Driving Main Street” – stands in sharp contrast to Main Street North or “Walking Main Street.” Main Street South has an exceedingly wide road, a large number of auto-dependent uses, and the absence of an intact historic fabric. Historically, Main Street South was residential, not commercial. However, over time, as traffic volumes increased, Downtown commercial uses grew south towards Salmon Brook. A few grand houses and apartment buildings still exist; however, most have been demolished. Main Street South was formerly identified by Salmon Brook and its wetlands. However, the wetlands have since been filled and the stream was covered and culverted by the Globe Plaza (now Main Street Marketplace) in the 1960’s.

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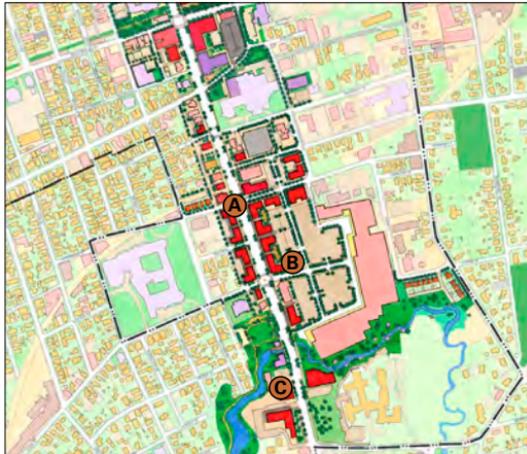


Main Street South



Main Street South can become an important part of the overall Downtown experience, its retail strategy, and its circulation and park system. The half-mile length of Main Street South should be developed as a series of spatial experi-

ences varying one's perception of the long straight road, not as a single monolithic avenue. The initiatives contained in the following pages develop Main Street South as a progression of unique places with a mix of uses.



Main Street South

A Streetscape program

B Redevelopment sites

C Salmon Brook Park

Streetscape Program

The Master Plan recommends the City undertake a comprehensive streetscape and road improvement program for Main Street between Hollis Street and Allds Street. Creating a high quality pedestrian environment does not require major traffic flow modifications. The Master Plan proposes preserving the cur-

rent lane configuration. The moving and turning lanes that exist today, will remain. However, the curb should be moved east or west 8' to create on-street parking lanes wherever possible. The parking would be set between bulb-outs at the corners in order to minimize the pedestrian crossing distance of Main Street. Easements or acquisition of prop-



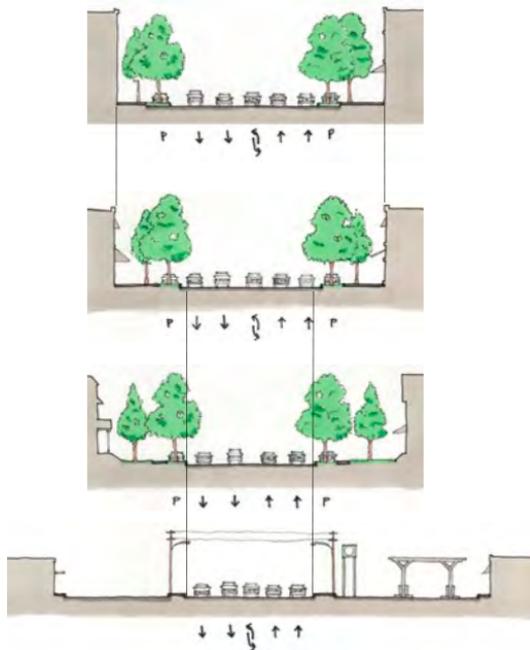
Main Street South
Existing (left)

Proposed (right)

erty would be required in front of most properties to create sidewalks and a planting zone. Buildings between Otterson and Hollis should be set back approximately 15' the sidewalk to preserve the residential/institutional fabric. Buildings between Otterson and Salmon Brook should be built to the sidewalk.

The streetscaping program will improve the overall pedestrian and vehi-

cular experience of Main Street South. A new streetscape program should locate utilities underground in accessible trenches. In addition, the streetscape should provide generous street trees, low level pedestrian scaled lighting, high level street lighting, textured (possibly brick, extended from Main Street North) sidewalks and crosswalks. The streetscape should be designed to calm traffic by cre-



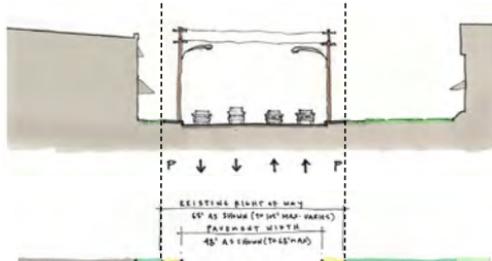
Street Sections

Existing Main Street North, between Hollis Street and the Nashua River (top)

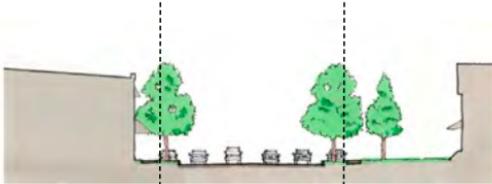
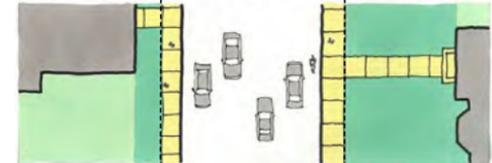
Proposed Section for Main Street South between Salmon Brook and Otterson Street (second)

Proposed Section for Main Street South between Hollis Street and Otterson Street (third)

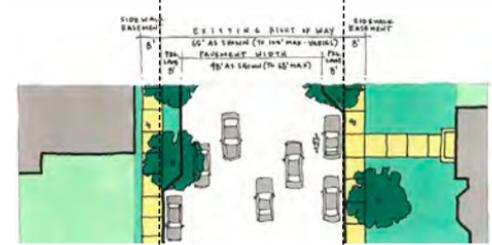
Existing Section of Main Street South between Otterson and Salmon Brook (bottom)



Existing Conditions of Main Street South:
 Sidewalks are located directly adjacent to moving lanes of traffic. The lack of street trees and presence of overhead utilities creates a dangerous and unattractive pedestrian environment. (top two images)



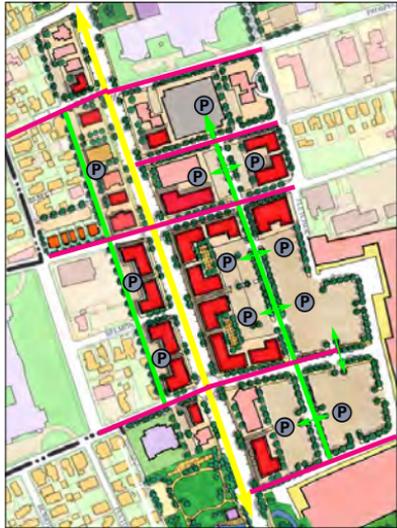
Proposed Plan and Section for Main Street South:
 The moving lanes of traffic remain unchanged. Parking bays are created, street trees are planted. A new sidewalk is constructed on private property. No building demolition is required. (bottom two images)



ating visual interest and subtle cues to drivers that Main Street is an environment that balances the needs of automobiles and pedestrians. All street furnishings (benches, light poles, trash receptacles) should be coordinated through a carefully selected palate of materials and colors.

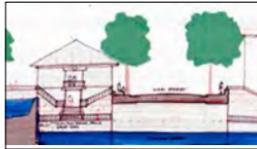
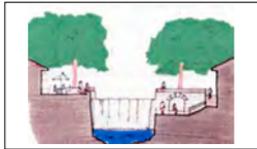
Circulation and Parking

The Master Plan recommends improved commercial circulation by creating rear lanes to access most of the properties along Main Street and installing traffic signals at key cross streets. The rear lanes will provide parallel access to Main Street. Traffic destined for establishments on Main Street South will access the properties at controlled intersections and rear lanes as opposed to via curb cuts directly on Main Street. In addition, a rear lane allows local traffic travelling from one establishment to another on



Circulation and Parking

Regional through traffic on Main Street (shown in yellow) will be aided by the reduction of local traffic and curb cuts from Main Street. The network of cross streets (shown in magenta) and parallel lanes (shown in green) provide local access to parking and service.



Salmon Brook Park 68

*Section A:
Section across Salmon Brook: dam and turbine are restored as an historic industrial remnant and public sculpture. (top left)*

*Section B
Section through Main Street: a pedestrian underpass under Main Street is created connecting Salmon Brook Park to Main Street Market Place. (top right)*

(section drawings from Salmon Brook Charette)

Main Street South to avoid Main Street altogether. By removing as much local traffic and curb cut access from Main Street as possible, Main Street can function more effectively as a regional through route.

Salmon Brook Park

Located south of Main Street Market-Place, Salmon Brook Park is the southern Gateway to Downtown. The park can create a "green" gateway.

Studies and a public design charrette for Salmon Brook Park have explored the possibility of daylighting the culverted brook south of the Main Street Market-Place and creating a pedestrian underpass under Main Street. Additionally, the

park would restore and stabilize remnant historic industrial structures where a dam and turbine once stood. Implementation of this plan will require a partnership with the private property owner.

Redevelopment Opportunities

Main Street South presents many opportunities for redevelopment. Most are located between Otterson and Salmon Brook. With the exception of a few of the grand residences between Hollis and Otterson, most of the buildings are either disposable, obsolete, or of no historic value. Over the next ten years, it is likely that many of these properties will be redeveloped. The Master Plan recommends this redevelopment occur incre-

The reconfigured park celebrates and preserves this part of Nashua's early heritage and development (bottom)

mentally and be primarily driven by the private sector. A public streetscape program is recommended however wholesale public sector acquisition and redevelopment is not necessary.

In sum, the Master Plan identifies approximately 10 to 15 sites for private redevelopment. Most of the sites on Main Street South are located at the proposed retail node between Otterson and Salmon Brook Park. With the redevelopment of the Main Street Marketplace, this retail node will complement both the form and types of retail on Main Street North. Storefront buildings would define the street and sidewalks. Overall, this retail node can absorb between 50,000 and 75,000 additional square feet of retail, further widening the array of Downtown businesses.

Retail sites along Main Street South should redevelop according to the following principles:

- a build-to line should be established at the back of the sidewalk, and a building's frontage must occupy at least 60 percent of this frontage line
- parking must be located behind the building; parking may be located in a 60' wide lot beside the building pro-

vided it is adequately screened from the sidewalk and street.

- buildings must have windows and activities that animate the sidewalk; at least 50 percent of a building's facade on Main Street must have windows and ground floor glass doors opening onto the sidewalk.
- primary entrances must face Main Street South
- in order to minimize parking requirements and encourage development, parking should be shared between adjoining properties; a parking maximum of one space per 4000 square feet should be enforced
- properties must be developed between .25 FAR and .5 FAR (FAR stands for "floor-area-ratio", meaning the ratio of the building's floor area to the overall area of its site).
- buildings must be a minimum of 2 to 3 stories in height



*Existing
Main Street South
(top)*

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*Proposed
Main Street South
(bottom)*

Frameworks



I Streets: Access and Connectivity

IN GREAT CITIES STREETS are more than a means of simply moving traffic. Streets are just one of the many components creating the public realm.

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This Master Plan proposes a new framework of streets and blocks for Downtown Nashua. The framework includes converting one-way streets to two-way streets, improved streetscaping, and alignments of new streets.

Conversion of One-Way Streets to Two-Way Streets

Many of the streets in Downtown Nashua were converted to one-way movement after World War II as a means of moving higher volumes of traffic through Downtown. Typically streets were converted in pairs, one in each direction (such as Kinsley and Hollis or Pearl and Factory). However, some are “orphans”—that is, they are not paired.

The public outreach process uncovered a variety of opinions, both negative and positive, about one-way streets. While they do move more traffic, there are several negative impacts:

- faster traffic, therefore a less pleasant pedestrian experience
- confusion and frustration for drivers who cannot move through Downtown based on intuition
- needlessly additional vehicle miles due to restricted movements and re-routing
- less desirable retail environment because businesses get exposure to traffic during either the morning or afternoon commute, but not both
- diminished access to parking and other destinations because of restricted movements
- reliance on wayfinding and signage because driving is no longer intuitive.

For these reasons, the Master Plan recommends converting as many one-way roads to two-way as possible. Doing so, however, is more complicated than simply removing the one-way sign. Typically, slight reconstruction of the road and intersection, as well as new traffic signals are required. Because of the complexity of converting streets from one-way to two, the Master Plan recommends a phased sequence of conversions. All streets have been categorized. A phased conversion is rec-

ommended beginning with those streets that are the most simple to convert (the “orphans”) because they are not paired with another one-way street. Streets were categorized as follows:

- streets that are less than 30' wide and are too narrow to convert to two-way movement with on-street parking
- streets that can be easily converted because they are wider than 30' and are not paired with a street in the opposite direction
- streets that are paired but can be converted with signalization improvements
- lowest priority streets whose conversion is most complicated and therefore require most study.

A more detailed study of one way street conversions is recommended as an early action item in the Implementation Section. This study should examine street widths, land uses, social / cultural contexts, impact of potential loss of on street parking and costs.

Broad Street Parkway

One of the charges of the Master Plan process was to examine the existing plans for the Broad Street Parkway and make recommendations for revisions if necessary to better serve the Downtown and the neighborhoods.



Tier One Conversions:
(top)
Unpaired streets greater than 30 feet wide shown in green
Remaining one-way streets are shown in red.



Tier Two Conversions:
(middle)
Paired streets with sufficient width and capacity shown in green. Remaining one-way streets are shown in red.



Tier Three Conversions:
(bottom)
Paired arterials that require further study shown in green. Remaining one-way streets shown in red.

To this end, the planning team reviewed and analyzed the current proposal, interviewed the community development staff, public works staff, and the regional planning commission staff, conducted a field examination, and applied national experience from other similar projects to the design of the Broad Street Parkway.

Broad Street Parkway:
Existing Proposal

The existing proposal for the Broad Street Parkway calls for a four-lane arterial highway, most of it divided by a center median, extending a distance of 1.7 miles, from a northern terminus at Broad Street to a southern terminus on Hollis Street. In addition to its two terminus intersections (Broad Street and Hollis Street), the proposed parkway would have three other intersections: at a connection to a Sargent Avenue extension, in the Milliard south of the Nashua River, and at Ledge Street just to the south of the Milliard. Auxiliary lanes (left-turn lanes and, in some instances, right turn lanes) would be present at all intersections.

The design speed of the proposed Broad Street Parkway is 40-50 miles per hour, typical of a multi-lane suburban arterial highway. The Parkway is a limited access roadway, with no fronting properties having access to the road. Access to adjacent properties is gained through the three internal intersections and the two terminus intersections.

Strengths and Challenges

The master plan team recognized the two underlying strengths of the current Broad Street proposal:

- It adds to the arterial street network. Adding new street network is always preferable to the alternate action of widening the existing street network.
- It adds new street network in perhaps the most useful alignment in Nashua: i.e., north/south across the Nashua River, thereby creating a par-



Existing One Way Streets

(top)
Current inventory of all one-way streets shown in red



Proposed Conversions

(bottom)
Through an incremental process, 20 of the 47 one-way streets can be converted. Converted streets are shown in red, remaining one-way streets are shown in red.

allel alternate route to the Main Street crossing of the Nashua River, one of the most problematical traffic “bottlenecks” in the City.

- The proposed Parkway provides a large increment of new access to the Millyard district, enabling travel between the Millyard and the north side of the Nashua River without requiring the use of Main Street.

However the Master Plan team developed an alternative which better meets the goals of the City and Downtown.

Although in agreement with the fundamental premises of the Broad Street Parkway, the Master Plan team identified several challenges with the current design as proposed:

- **Road Type A** limited access road is

fundamentally at odds with the character of Nashua, and indeed with cities in general. Limited access roads are most appropriate where mobility – higher speed travel over longer distance – is paramount. In contrast, the primary purpose of arterial streets within the city is access, i.e. distribution to as many intersecting streets and fronting properties as possible, and the provision of frequent opportunities for pedestrian crossings. The limited access feature of the proposed Broad Street Parkway, therefore, is fundamentally at odds with the existing character of Nashua streets, and with the desired character for new streets within the system.

- **Design Speed** The proposed Broad Street Parkway has a design speed of 40-50 miles per hour. This high

Current Broad Street Parkway Existing Proposal
(bottom left)

The proposal provides a high-speed link between Broad Street and the Millyard, but does little for regional through-traffic.

Preferred Alternative for the Broad Street Connector
(bottom right)

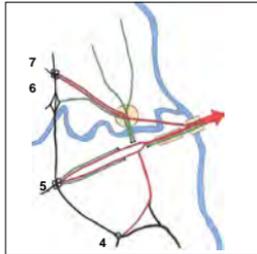
The preferred alternative will provide access to redevelopment properties and will improve congestion at Railroad Square created by regional through traffic.



design speed is incompatible with the densely developed urban fabric (or what should be such fabric) in the road corridor. Design speeds in the 40-50 miles per hour range are appropriate for suburban arterials, in which mobility is the highest consideration. For urban streets for which access and urban street values are the primary consideration, design speeds of around half this amount (i.e., 25 to 30 miles-per-hour) are more appropriate.

- Number of Lanes** Four through lanes of traffic, as proposed in the current Broad Street Parkway design, are far in excess of any need likely to be generated by even the most optimistic of downtown growth scenarios. A two-lane roadway (one lane in each direction) is, on the other hand, fully adequate for all reasonable projections of downtown growth. For example, a two-lane roadway would accommodate downtown growth of 1.25 million square feet of new shopping, or 1.74 million square feet of new office, or 6,200 new downtown dwelling units. These supportable growths, or combinations of them, are greatly in excess of any downtown growth projections.

A cross section with four through lanes translates to a cross section of six lanes at most intersections, and seven lanes at the “worst case” at Ledge Street. Intersection widths of this type are not only visually blight-



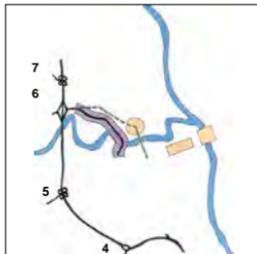
Diagnosis

(top)
 Traffic from Exits 6 and 7 is funnelled through a dog-leg at Railroad Square and a single Merrimack River crossing on East Hollis Street.

Current Broad Street Parkway

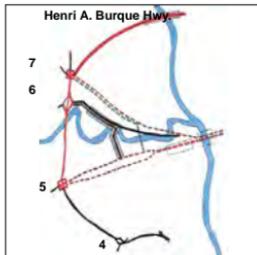
Proposal
(middle)

Proposed roadway serves only Exit 6 traffic to the Milliard. Much traffic is still funnelled through Railroad Square and the single Merrimack River crossing.



Alternative Proposal Broad Street Parkway
(bottom)

Exit 7 traffic takes the Henri A. Burque Highway across the Merrimack River on a new bridge. Exit 6 traffic crosses Railroad Square in a “through-movement.”



ing and out of character with the City of Nashua, but they are inefficient for traffic operations, and hostile to pedestrian and bicycle travel.

- Lack of Address Value** The proposed limited access feature on the proposed Parkway design means that fronting properties cannot have an "address" on the Parkway. At best, properties can appear to front on the Parkway, but must be reached from side streets or parallel "frontage roads." The proposed limited access feature of the Parkway, therefore, will prevent the Parkway from ever becoming an "armature" of development in Nashua. Failure to realize

this potential is particularly disappointing, given the currently undeveloped state of two prime developable areas through which the corridor passes: (1) the Millyard south of the Nashua River and (2) the currently undeveloped land on the south side of the corridor near its western terminus at Broad Street.

- Lack of East/West Street Connection** Although the proposed Broad Street Parkway design accomplishes the all-important north/south connection across the Nashua River, it does little to provide an additional east/west connection on the north side of the River. Such a connection

Broad Street Parkway: "An armature for everything"

If designed well, the road can provide (A) access to redevelopment parcels, (B) connections to a regional trail system, (C) an extension of a local trail system, and (D) improvements to signal operations at Railroad Square.



would be highly valuable in redirecting east/west traffic now on Amherst Street through Railroad Square to other locations (most obviously, to Franklin Street, thereby crossing Main Street away from Railroad Square).

- **Lack of Local Street Connections**

To the south of the Nashua River (i.e., in the Millyard and in the Hollis Street area), the Parkway terminates in a dense network of small local streets or street-like spaces in the Millyard and the Tree Streets Neighborhood. Rather than weaving the Parkway into these streets, however, the proposed design obliterates them, connecting only at one existing street (Ledge Street) with a seven-lane cross section, and at a large new single intersection (five lane approaches) in the Millyard.

- **Through Trips** Although a stated purpose of the proposed Broad Street Parkway is the relief of through traffic (i.e., traffic with neither origin nor destination in Nashua), the road as configured does not offer an impressive source of relief. The major through movements within Nashua are not fundamentally north/south movements, but rather east/west movements, primarily between interchanges 5, 6 and 7 of the Everett Turnpike and the single crossing (Hollis Street) of the Merrimack River. The currently proposed configuration of the Broad Street Park-

way rearranges some of these movements, particularly the movements between Everett Turnpike interchanges 6 and 7 and the Hollis Street crossing of the Merrimack River. The proposed Parkway will permit the rerouting of these movements (or some of them) away from the congested multi-leg intersection at Railroad Square, and redirect them toward the new north/south river crossing and then onto Hollis Street and Kinsley Street. This rerouting of traffic, however, may not have a large benefit, since the same volume of east/west traffic would still appear at the critical bottleneck location at the Hollis Street crossing of the Merrimack River.

- **Cost** The cost of the proposed Board Street Parkway (\$60 million) is extravagant and out of scale. Almost all of the major street network (arterial and collector street) within Nashua is in need of major expenditure for preservation and upgrading. Reducing the scope of the proposed Broad Street Parkway and redirecting the "savings" in funds to other needed projects throughout the City would, in all likelihood, yield a far greater level of return per dollar expended.
- **Land Consumption** The sweeping curves, dictated by the higher design speed of the proposed Parkway, consume large amounts of land for the roadway footprint itself, and further

render a number of land parcels into unusable fragments. Such land gained in excess of real footprint is not suitable for other uses, such as park land or an adjacent trail. The intersections (particularly at Ledge Street, with its seven-lane approach) are notably larger than anything now existing on any surface street within the City of Nashua.

- **Neighborhood Impact** The proposed Broad Street Parkway design terminates in the Tree Streets neighborhood. More accurately, it obliterates a good part of a neighborhood by terminating there.
- **Unimodal** The proposed design is heavily oriented toward moving the maximum possible volume of vehicles, at the highest reasonable speed. Travel by other modes – bicycling and walking – do not appear to be a serious consideration in the design. The design does not appear to integrate the regional walking and bicycling system, despite the fact that the new design constitutes a major acquisition of new land and provides a new river crossing.

Preferred Alternative, Broad Street Parkway

The Master Plan team, in realization of the challenges associated with the currently proposed Broad Street Parkway, proposes the following modifications to the plan:

- **Road Type** In contrast to the cur-

rently proposed limited access road, the master plan recommends a controlled access street. On such a street, high-value fronting properties are encouraged, and are given vehicular access under controlled conditions (carefully planned driveway spacing, rear alley connections, etc.). Rather than minimizing the number of intersections, the preferred alternative would seek to maximize intersections. Specifically, to the south of the Nashua River, the preferred alternative would be carefully woven into the fabric of five or six local streets, rather than obliterating them and imposing a new single intersection.

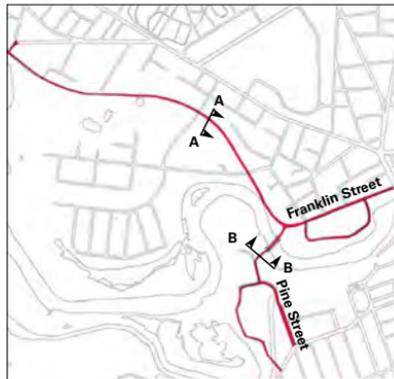
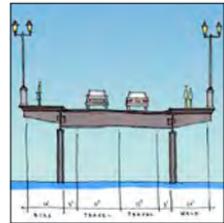
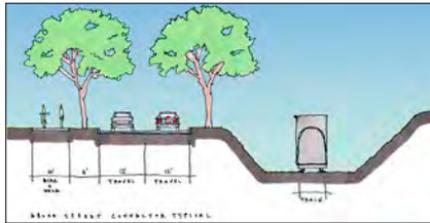
- **Design Speed** The preferred Broad Street Parkway has a design speed of 25-30 miles per hour, appropriate for a new arterial street in an urban area. The lower design speed permits more compact geometric design of the street, smaller intersections, reduced sight distance requirements, makes on-street parking more feasible, greatly improves the pedestrian atmosphere, permits plantings and street furniture to be placed closer to the street, and generally reflects the desirable traits of existing streets in Nashua.
- **Number of Lanes** The preferred alternative should have two through lanes (i.e., a single through lane in each direction). At intersections, a third left-turn lane should be provided. Right-turn auxiliary lanes

should not be provided. A two-lane roadway provides an increment of capacity that is far more than adequate for any reasonable projection of new downtown growth in Nashua.

- **Address Value** The design features of the preferred Parkway – specifically its accessibility, design speed and size – should add to the value of the road as an address. Supporting

City policies (zoning, redevelopment initiatives, etc.) should foster the role of the road as an armature for new development.

- **East/West Street Connection to Franklin Street** A major advantage of the preferred alternative over the currently standing Broad Street proposal is the connection to Franklin Street on the north side of the



Broad Street Parkway

The preferred alternative for the Broad Street Parkway (left) will provide access to redevelopment opportunities, as well as reduce congestion at Railroad Square.

Recommended cross-section (section A-A) (top left)

Recommended cross-section of Parkway at the new bridge (section B-B) (top right)

Nashua River. This connection creates a new east/west route parallel to Broad Street and Amherst Street, and permits east/west through traffic (from Everett Turnpike interchanges 6 and 7 to the Hollis Street/Merrimack River crossing) to divert from Broad Street and Amherst Street, to use Franklin Street and Canal Street instead, and thereby avoid the major congestion at the multi-leg intersection at Railroad Square. Although the currently proposed Parkway could redirect some of this same through movement southward across the new Nashua River crossing (thereby evading the Railroad Square location), the current plan does not create a new east/west connection, but simply adds the redirected through traffic to the already high volumes on Hollis Street and Kinsley Street.

- Local Street Connections** The preferred alternative, rather than obliterating street connections in the Millyard and Tree Streets neighborhood, will create a fabric of new connections and small streets. The preferred alternative will have far less impact on local streets than the currently standing proposal, because: (1) it will deliver only a single lane of traffic across the Nashua River in each direction and (2) it will disperse its traffic to a number of local street connections, rather than focusing onto a single new large intersection

at Ledge Street.

- Land Consumption** The preferred alternative will consume far less land than the currently proposed Broad Street Parkway. The controlled access feature (as contrasted to the limited access feature of the current proposal) will require the taking of fewer properties, since fronting property value will be increased, not obliterated, by the road. The more compact geometric design of the road, manifested in low design speeds, small frequent intersections, and two-lane cross section, will greatly reduce the land needed for the road footprint itself. Rather than obliterating much of the neighborhood land at the southern terminus, the preferred design would restore this land to dense urban uses.
- Cost** The compact right-of-way, two-lane cross section and lack of limited-access purchases will yield a preferred Broad Street alternative that is most likely a fraction of the cost of the currently proposed alternative. Some individual elements of the cost savings are likely to be spectacular. For example, the structure for the crossing of the Nashua River, some 1,100 feet in length (4 lanes) under the currently proposed plan, would be less than 200 feet (2 lanes) under the preferred alternative.
- Neighborhood Impact** An important principle of the preferred alternative is the restoration of

neighborhoods, and creation of new neighborhood fabric, particularly at the southern end of the Parkway. The preferred alternative does this through a downsized street, the adoption of urban street design guidelines, and the connection to the existing street system at numerous points.

- **Multi-Modal** The preferred design is multi-modal, providing connections to the regional trail system and extension of the local trail system.

An Alternative to Through Traffic:

Extension of the Outer Loop

A Broad Street Parkway – either the currently proposed version or the preferred alternative from this Master Plan – is not the answer to through traffic in downtown Nashua. Far more important than the Broad Street Parkway, in any of its versions, is the extension of the Henri A. Burque Highway with another crossing of the Merrimack River.

As part of the original circumferential connector, the Henri A. Burque Highway was designed to provide a “beltway” around downtown. As is often the case with large road projects, the planning process was slower than private development. As a result, intense development occurred in the corridor and the right-of-way. In the 1990’s, the idea of extending the Henri A. Burque was “shelved” in favor of a new alignment for the circumferential connector several miles to the north on more easily

acquired greenfield land.

Extending the Henri A. Burque was valid many years ago. Today it is still valid, albeit highly unlikely and infeasible. Extending the Henri A. Burque Highway to Hudson will allow traffic generated from Everett Turnpike interchange 6 (Broad Street) and interchange 7 (Amherst Street) destined east to Hudson to do so without traversing Amherst and Canal Streets, and most importantly avoiding Railroad Square and the Hollis Street bridge.

Extension of the Henri A. Burque highway is not likely. Acquisition costs in the foreseeable future are prohibitive. Likewise, NHDOT is in the process of issuing an SEIS on the Circumferential Highway several miles north of the Henri A. Burque. However, should conditions in the corridor change such that the extension of the highway becomes, once again feasible, Nashua should pursue this option.

Preferred Proposal:

Design Recommendations

If the City decides to pursue the basic alignment of the current Broad Street Parkway proposal, the following recommendations are made to assure this alignment best serves both downtown and the region.

The Parkway should be true to its name and be designed as a 25-30 mile-per-hour, two lane road, not a 45-50 mile-per-hour, limited access highway as it has been designed as and conceived of.

A two-lane cross-section will reduce the cost of the roadway significantly yet will not reduce its effectiveness.

The Parkway should incorporate trail elements that substantially implement the City's Master Plan for trails and greenways.

All efforts should be made to preserve and protect the Tree Streets Neighborhood, located at the road's southern terminus. The greatest impacts will likely occur on Elm Street between Hollis and

Kinsley, now a small residential street, where the roadway will force all regional traffic to converge.

The Broad Street Parkway proposal will require traffic modeling in order to confirm the strategic assumptions and decisions. It is important to note that traffic modeling, by itself, should not be considered a litmus test for good (or bad) transportation proposals. Rather they should be used as a tool to help evaluate proposals.

II Trails

A FRAMEWORK OF TRAILS is as important to Nashua as a new framework of streets. People will choose to move to and invest in Nashua because of a package of amenities – not simply because it is affordable or proximate to employment opportunities. Creating a well-developed, well-connected park and trail system will contribute to Nashua's quality of life and make Downtown an integral part of the lives of all Nashua residents, as well as other residents of the region. Its natural assets will attract homebuyers and visitors searching for a connected and public life. Investments in trails will:

- provide recreational outlets for both residents and visitors to Nashua
- weave together important places in the City for individuals and families on bike or on foot
- provide an alternate means of commuting to Downtown
- be a draw for tourists as a connection between the abundant heritage resources Nashua has to offer
- provide improved air quality by offering access to the City without the automobile

Loops and Connections

The new Downtown riverfront park will connect into the larger regional open space system, linking Mine Falls Park to the Merrimack River and other Downtown open space amenities. Dotted red lines indicate on-street bikeways. Solid red lines indicate paths and trails.



- serve an economic development objective by providing a valuable leisure activity for individuals and families.

The idea of an extensive trail system is already a part of the City's 1993 Trails Plan, adopted as part of the City's Master Plan, as well as the region's long-range plan. This Master Plan illustrates how trail systems can be implemented by private and public initiatives recommended in this Plan.

A trail would line both sides of the Nashua River in the Downtown, linking together the new parks, as well as Mine Falls Park. Multiple river crossings create "loops" in the Downtown, connecting many nodes and attractions along the

trail system. Short loops in the Downtown are particularly important because they make short excursions on foot, such as a walk during a lunch hour, interesting and enjoyable.

The riverfront park system proposed in this Master Plan will be connected to Mine Falls Park, thus connecting to the City's predominately residential areas west of the Interstate. This wider connection will open up Downtown as a destination for families and recreationists who would not otherwise go Downtown for anything other than an occasional visit. These trail connections will help expand the appeal of Downtown to all residents of Nashua, not just those living east of the Interstate.

III Design Guidelines



DESIGN GUIDELINES ARE NECESSARY to encourage new development along Main Street South and to reinforce and support the overall goals of this Master Plan. The design guidelines that follow can be applied to new private development opportunities along Main Street South, between Hollis Street and Salmon Brook Park. Within this area, however, the Master Plan defines two very different areas of development:

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- 1 A retail node between Otterson Street and Salmon Brook Park, distinct from, yet complementary to, Main Street North.
- 2 A mixed-use area between Hollis and Otterson Streets that respects the architecture and urban design of the existing historic mansions, apartment buildings and institutions.

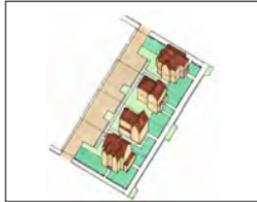
As such, two sets of design guidelines are developed to address desired development patterns for these areas.

Design guidelines present standards for new development. They should be supported by the new zoning code to assure development compatibilities, minimize design review friction, insure investor confidence, and ultimately that new, urban buildings will be appropriate to their context and contributory to the overall health of Downtown Nashua.

Main Street between Hollis and Otterson

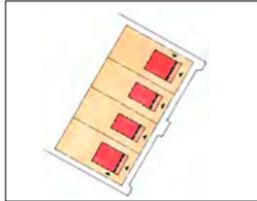
Urban Design Intent

The urban design intent in this area is to strengthen Downtown by creating a transitional zone between the two retail nodes along Main Street North and South. This area should contain smaller buildings with residential, institutional or office uses. Retail development should be discouraged. The form of the buildings should relate to the existing residential buildings; that is, they should be narrow and deep buildings with small yards on all sides.



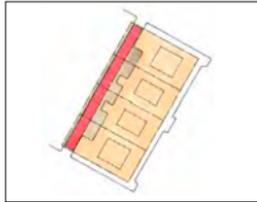
Massing

(top)
Buildings should be domestic in form, two stories and evenly spaced.



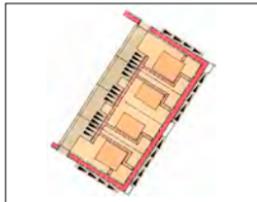
Siting

(second)
Buildings should be set back approximately 15 feet, with one front entry per building.



Easement

(third)
A rear easement is required to coordinate an efficient parking, circulation and service system.



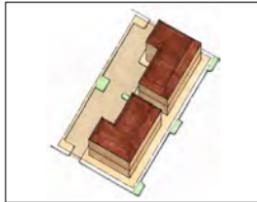
Parking and Pedestrian Circulation

(bottom)
All parking should be in the rear and on-street. Pedestrian circulation A walkway should connect the sidewalk to the front door.

Main Street between Otterson and Salmon Brook

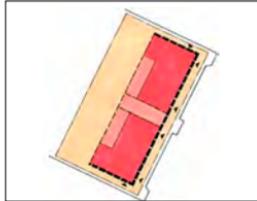
Urban Design Intent

The urban design intent in this area is to concentrate Downtown's retail growth potential in a second retail node along Main Street South by creating mixed-use buildings with mandatory, traditional retail storefronts on the round floor. Broad sidewalks, street trees, on-street parking, awnings, and active storefronts will create a vibrant pedestrian-oriented retail node.



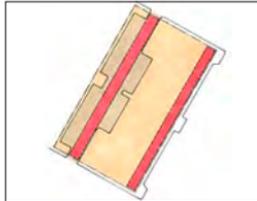
Massing

(top)
One to three story buildings should be simple, well-proportioned masses that front the street.



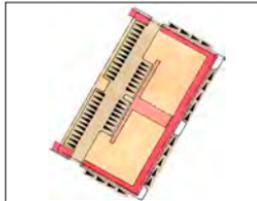
Siting

(second)
Buildings must be located on the sidewalk, with multiple entries to multiple storefronts.



Easement

(third)
A front easement is required to create a broad sidewalk. The rear easement is required to provide access to parking, service and a clear circulation system.



Parking and Pedestrian Circulation

(bottom)
Each block should have a mid-block pedestrian connection. This path can be either interior to the building or an exterior walkways to access parking behind the buildings.

Residential Design Guidelines

The Master Plan identifies several sites throughout Downtown for new housing. These sites fall into two categories: (1) extensions and insertions into old neighborhoods and (2) former commercial or industrial sites.

The architectural character of new housing should be based upon traditional patterns found throughout and proven successful in Downtown Nashua. Adherence to guidelines is more critical on sites adjacent to or within existing neighborhoods.

Essential characteristics of housing adjacent to or within existing neighborhoods:

- simple, straightforward volumes with gabled or hipped roofs
- windows and doors with wide but vertical proportions
- simplified details and trim
- orderly, but not necessarily symmetrical relationships between windows, doors, and overall building mass
- buildings setback approximately 20 feet from the sidewalk, consistent with surrounding houses, providing a shallow yard zone.



Typical massing of houses (top)

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Detail of entrance (second)



Perspective of Bronstien Homes (bottom)



iv Implementation

The Master Plan will be implemented over ten years. Upon completion, approximately 500 new residential units, and 500,000 square feet of new square feet of commercial space will be added to Downtown Nashua. In addition, with construction of a new Performing Arts Center, The Center for Nashua Heritage and Future Technology, riverfront parks, and trail connections, the downtown will be strengthened as the region's center for cultural and entertainment, and recreational networks.

Completion of this Master Plan will create two legacies. The first will be a revitalized downtown with a diversified economy that benefits all residents of Nashua. Downtown Nashua will become the soul of the region, and a critical component to the region's superior quality of life.

Second and equally important will be the legacy of partnerships and civic cooperation that are critical to realize the visions of this Master Plan. The Master Plan should not be thought of as a way to spend scarce public dollars - rather it should be thought of as a way to form partnerships, raise capital, and leverage resources.

The ideas set forth in this plan come from the vested interests of the City's diverse body of residents and investors. They rely on a coordinated, cooperative and active public sector working in tandem with an entrepreneurial private sector. The results of this private-public partnership will benefit current and future generations of Nashuans.



Phasing of Priority Projects

The priority projects within the first phase of implementation will include

- Main Street South (Design and Engineering)
- Bronstein Homes (Design and Hope VI Application)
- Broad Street Parkway (Design and Engineering)
- One Way Street Conversion Study
- Center for Nashua Heritage and Future Technology (fundraising)

The priority projects within the second phase of implementation (years 3-6) will include:

- Main Street South (begin construction)
- Broad Street Parkway (begin construction)
- Bronstein Homes (begin construction)
- Riverfront Parks (design and engineering)
- Performing Arts Center (feasibility study)
- Center for Nashua Heritage and Future Technology (design)

The priority projects within the final phase of the implementation will include:

- Riverfront Parks and related development projects (construction)
- Center for Nashua Heritage and Future Technology (construction)
- Performing Arts Center (construction)



Phasing Diagram
Design, Engineering, Feasibility and Fundraising for primary projects described in the Master Plan are shown in blue. Primary construction projects are shown in red; Phase One: (years 1-3) (top)



Phase Two: (years 3-6) (middle)



Phase Three: (years 7-10) (bottom)

Acquisition and Strategy

Many of the Master Plan initiatives, particularly those listed in the previous section as *priority projects* will be relatively simple to implement because of the lack of complicated property acquisition. In

most cases much of the required property is either owned by a single private entity or by a public body.

Bronstein Homes

(top)
Ownership

(bottom)
Illustrative Plan



| Key | |
|---|-------------------------|
| | Private Ownership |
| | Public Ownership |
| | Institutional Ownership |



**Riverfront West
Park**

(top)
Ownership

(bottom)
Illustrative Plan



Key

| | | | | |
|--------------|--------------|--------|-------------|-------------------------|
| Light Yellow | Light Orange | Orange | Dark Orange | Private Ownership |
| Light Blue | Blue | | | Public Ownership |
| Light Green | Green | | | Institutional Ownership |



**Riverfront East
Park and
Performing Arts
Center**
(top)
Ownership

(bottom)
Illustrative Plan



| Key | |
|---|-------------------------|
|     | Private Ownership |
|   | Public Ownership |
|   | Institutional Ownership |



**Broad Street Park-
way**
(left)
Ownership

(right)
Illustrative Plan

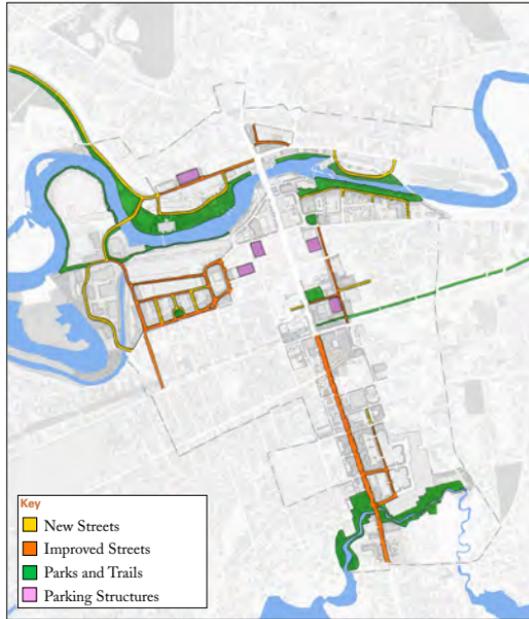


**Nashua Center For
Heritage and
Future Technology**
(left)
Ownership

(right)
Illustrative Plan



| Key | |
|---|-------------------------|
| | Private Ownership |
| | Public Ownership |
| | Institutional Ownership |



Public Infrastructure

The Master Plan recommends public action be taken to create infrastructure that will leverage substantial private investment.

Infrastructure Quantities

The table below is to be used to generate preliminary estimates of costs. Locally appropriate per unit costs can be applied to the values in the table.

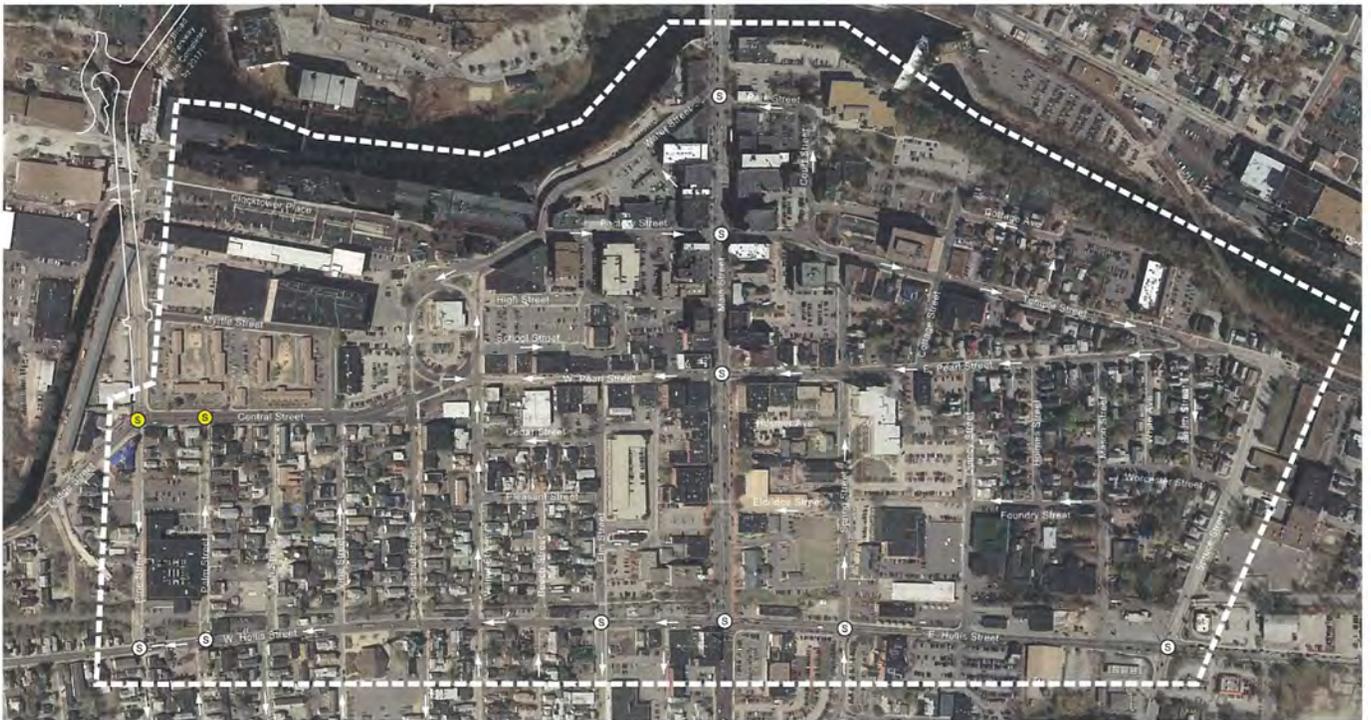
| | Riverfront West | Riverfront East | Railroad Square | Main Street North | Main Street South | Total |
|----------------------|-----------------|-----------------|-----------------|-------------------|-------------------|--------------|
| New Streets | 10,650 lf | 3,150 lf | 0 | 650 lf | 250 lf | 14,700 lf |
| Improved Streets | 6,350 lf | 0 | 700 lf | 2,200 lf | 4700 lf | 13,950 lf |
| Parks | 8.2 acres | 7.5 acres | 0 | .7 acres | 6.4 acres | 22.8 acres |
| Parking Structures | 520 spaces | 0 | 0 | 640 spaces | 300 spaces | 1,460 spaces |
| Trails outside Parks | 9,600 lf | 250 lf | 0 | 3,300 lf | 0 | 13,150 lf |

Appendix C

2015 Downtown Circulation Study

Downtown Circulation Study

Nashua, New Hampshire



Prepared for **City of Nashua, New Hampshire**

Prepared by **VHB / Vanasse Hangen Brustlin, Inc.**
Bedford, New Hampshire

January, 2015

Downtown Circulation Study

Nashua, New Hampshire

Prepared for

The City of Nashua, NH

Prepared by

Vanasse Hangen Brustlin, Inc.
Bedford, New Hampshire

January, 2015

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Executive Summary

Introduction

Nashua's Downtown serves an integral role in defining the identity and spirit of the community. Main Street and the surrounding roadways that make up the Downtown are places to gather, conduct business, and express the values that unite residents. With this in mind, the City of Nashua retained Vanasse Hangen Brustlin, Inc. (VHB) to evaluate existing traffic circulation within the Downtown and to make suggestions on any needed modifications that might enhance the experience of those who live, work, and visit the Downtown. The purpose of the study is to:

- Develop and evaluate potential actions to improve roadway and intersection traffic flow with regard to mobility
- Strengthen transit, pedestrian, and bicycle connections
- Enhance accessibility for residents and business within the Downtown.

The intent of the study is not to develop or recommend major reconstruction projects, but rather, to identify modest actions that the City might consider implementing over time.

The study area is generally bound by the Nashua River to the north, Spruce Street to the east, East and West Hollis Streets to the south, and Pine Street to the west.

Existing Conditions

A review of existing conditions revealed a vibrant and thriving Downtown. Traffic volume demand is high, not only during the peak commuter hours, but throughout the day. Traffic flow is controlled along the major arterials of Main Street, West Hollis Street, and East Hollis Street by a total of nine traffic signal controlled intersections. Additionally, as part of the Broad Street Parkway project, two new traffic signals will be installed at the Central Street/Pine Street and Central Street/Palm Street intersections.

The results of the operational analyses, with the Broad Street Parkway in place, indicate that each of the signalized intersections are expected to operate acceptably (LOS D or better). Similarly, the results of the evaluation shows acceptable operating conditions at the unsignalized study area intersections with the exception of the Walnut Street Oval, which revealed an LOS F operation during the weekday evening peak hour.

The most dominating feature of the Downtown's existing roadway network is the presence of numerous one-way streets. Factory Street and Temple Street form a one-



way east-west couplet with East Pearl Street and West Pearl Street. Similarly, West Hollis Street forms a one-way east-west couplet with Kinsley Street. There are also numerous north-south one-way couplets such as Pine Street with Palm Street, Ash Street with Vine Street, and Chestnut Street with Walnut Street. Other one-way streets include School Street, Cedar Street, Eldridge Street, Spring Street, Foundry Street, South Street, Cottage Avenue, Court Street, and Park Street.

The Downtown is well served by public transportation with the Nashua Transit Center located on Elm Street in the heart of the Downtown. The Nashua Transit System runs Citybus (a daytime fixed route service); After 7 (an evening fixed route service); and City Lift (a paratransit senior citizen service, with routes throughout the Downtown).

Pedestrian mobility is accommodated primarily with the presence of sidewalks, crosswalks, pedestrian phase actuation at traffic signal controlled intersections, and off-road facilities such as the Nashua Heritage Rail Trail and the Nashua Riverwalk. Sidewalks are provided along nearly all streets within the study area with only minor exceptions. Crosswalks are present at major roadway intersections while midblock crossings are present along East Pearl Street, Main Street, Temple Street Pine Street, and Palm Street.

The Nashua Heritage Rail Trail, which runs parallel to West Hollis Street, provides access to both pedestrians and bicyclists. While the trail has some roadway crossings, it provides an important alternative to the high traffic volume route of West Hollis Street.

Other than the Nashua Heritage Rail Trail, there are few defined bicycle facilities within the study area. Defined bicycle lanes are provided on Temple Street, between Spring Street and East Pearl Street, and on East Pearl Street, between Spring Street and Temple Street. Bicycle lanes are marked and include both diamond and bicycle shaped identification markings. Bicycle shoulders are also provided along Pine Street, Palm Street, and will be provided along the soon-to-be completed.

Also, the Nashua Heritage Rail Trail and the defined bicycle lanes along such roadways as Temple Street and East Pearl Street are not well connected. This absence of connectivity tends to discourage recreational bicyclists and young bicyclists from using the existing bike facilities. Additionally, no bicycle racks were observed. However, the City has recently purchased bike racks as part of the City's sidewalk reconstruction project. The City is currently considering where best to locate the bike racks.

A review of crash data over the nine-year period of 2002 through 2010 showed the Main Street/West Hollis Street/East Hollis Street intersection to have the most reported crashes with an average of over 10 crashes per year. This intersection also showed the highest occurrence of pedestrian related crashes with a total of eight pedestrian related crashes over the nine-year period. Also of note, 70 percent of all pedestrian related crashes within the study area occurred at signalized intersections that have pedestrian crossing signals.

Public Input

The study included an open and consensus-driven public participation process. In addition to meetings with City staff and a public presentation to a joint meeting of the Board of Aldermen Committee on Infrastructure and Planning & Economic Development Committee, an important public workshop was held on April 30, 2014.

The workshop, which was attended by residents, property and business owners, as well as the Mayor, members of the Board of Aldermen and key City staff, provided attendees an opportunity to share their ideas on a wide range of potential solutions directly with the study team in an informal workshop-type format.

The following is a small sampling of some of the comments provided by attendees of the workshop. This is not a complete list of the comments and suggestions.

- Do not remove on-street parking.
- Maintain raised crosswalks.
- Bike racks are needed throughout the Downtown.
- Bike lanes need to be connected and routes need to be developed for both east-west as well as north-south travel.
- Consider “walk with traffic” pedestrian traffic signals.
- Converting Water Street to a pedestrian connection with green space is a good idea.
- Reverse the one-way flow on East Pearl Street and Temple Street to improve circulation.
- The Post Office on Spring Street is the cause of most of the existing problems on the street – customers cause backups during the morning peak hours.
- Maintain one-way operation East Hollis Street and East Pearl Street, but convert Spring Street to two-way.
- Consider any circulation modifications within the context of future land development projects.

These and many other comments and suggestions were considered in the development of the Study Findings.

Study Findings

To improve vehicular mobility, strengthen transit, pedestrian, and bicycle connections, and to enhance accessibility for residents and businesses, the City

should consider converting some of the Downtown's one-way streets to two-way flow. However, changing the circulation patterns of several streets at the same time can be disruptive and therefore it would be best to implement these types of actions over time. Some of the actions could be implemented now, some in the future, and some would be best implemented as part of future roadway reconfiguration projects.

Walnut Street Oval

Reconfiguring the Walnut Street Oval would not only afford the City an opportunity to enhance access to the Downtown from the west (complimenting the Broad Street Parkway), but it would also provide a tremendous opportunity to both encourage redevelopment and introduce a more pedestrian friendly appeal to the area.

A range of reconfiguration alternatives were considered. Although each option has its advantages and disadvantages, the duel roundabout option would appear to provide the best opportunity to enhance vehicular and pedestrian mobility while encouraging area redevelopment.

Advancing the roadway reconfiguration, solely as a City improvement project, would be costly and as result could take many years. However, if there was an opportunity for this type of roadway reconstruction project to be constructed by the private sector as part of a larger redevelopment plan where the City and one or more property developers worked together, this type of project could advance much quicker. To advance this concept, the City should share the reconfiguration concept with interested area property developers and initiate discussions with them in an effort to spark interest in the area's redevelopment opportunities.



Water Street

If one or more private developers, in collaboration with the City, were to advance a pedestrian friendly redevelopment plan for the Walnut Street Oval area, it would be advantageous to provide continuous pedestrian connectivity to the Nashua River at Water Street. This could be done by converting the western segment of Water Street to a pedestrian corridor. Full vehicular access and egress would be maintained for all businesses on Water Street by way of the traffic signal controlled Main Street intersection. The pedestrian corridor, which would connect to Factory Street, would not only provide access to pedestrians and bicyclists, but it would provide an aesthetically pleasing area with landscaping, benches, and great views of the River.





Factory Street

In addition to the aesthetic and community enhancements and the improved pedestrian connectivity to the Nashua River, converting the western segment of Water Street to a pedestrian corridor, would remove vehicular traffic from entering Factory Street from Water Street and thereby negate the poor sight line issue. With the poor sight line issue addressed, Factory Street can be converted to two-way flow. Factory Street's existing 36-foot curb-to-curb width would accommodate a single travel lane in each direction while maintaining the existing on-street parking on the north side of the street. This change would require modifications to the Main Street/Factory Street/Temple Street traffic signal. The City should consider converting Factory Street to two-way, but only as part of the closure of the western segment of Water Street.

West Pearl Street

Converting West Pearl Street to two-way flow would provide improved connectivity to and from Main Street. The existing 36-foot curb-to-curb width along the segment of West Pearl Street from Main Street to Elm Street would accommodate a single travel lane per direction while allowing the City to maintain the existing on-street parking on the north side of the street. However, because the segment of West Pearl Street from Elm Street to Walnut Street is only 34 feet wide with on-street parking on both sides of the street, the conversion to two-way flow would most likely result in the loss of the existing on-street parking spaces on the south side of the street. In an effort to minimize any loss of on-street parking, the City could consider reducing the approximately 8' wide sidewalk on the south side of the west end of West Hollis Street by approximately 2 feet. This additional roadway width could accommodate two 10' travel lanes in addition to maintaining on-street parking on both sides of the roadway.

This conversion to two-way operation would require modifications to the Main Street/ East Pearl Street/West Pearl Street traffic signal. Converting West Pearl Street to two-way flow would best be accomplished as part of any reconfiguration and redevelopment plan for the Walnut Street Oval.

Temple Street and East Pearl Streets

Converting either Temple Street and/or East Pearl Street from their existing one-way operation to two-way flow would improve vehicular mobility. However, the downside of the conversion would be the loss of on-street parking and/or an existing designated bike lane. Temple Street's existing 34-foot curb-to-curb width accommodates a single travel lane, a bicycle lane, and on-street parking on both sides of the street. To convert the roadway to two-way flow with a travel lane and a bike lane in each direction would necessitate the loss of parking on both sides of the street. Similarly, providing two-way flow on East Pearl Street, which has sections as narrow as 28 feet, would necessitate the loss of parking and the bike lane. Additionally, based on public input, there does not appear to be much support for converting either Temple Street or East Pearl Street to two-way flow. For these reasons, it may be best for the City to leave Temple Street and East Pearl as currently configured for the time being.

Spring Street

Converting Spring Street from East Hollis Street to East Pearl Street from its existing one-way northbound operation to two-way flow would be relatively straightforward as the roadway currently has two travel lanes in addition to on-street parking on the east side of the street. However, the change would require modifications to the East

Hollis Street/Spring Street traffic signal. Also, patrons of the Post Office would no longer be able to queue along one of the travel lanes when the parking lot gets congested (as they do today) as the northbound traffic would be limited to one lane. Nevertheless, if the City is committed to begin to convert some of its one-way streets to two-way, Spring Street may be a good location to start.

Court Street and Park Street

Converting Court Street and Park Street to two-way operation would improve mobility in the area and also enhance land development opportunities. Converting Court Street to two-way operation would at a minimum involve modest modifications, to the Court Street/Temple Street intersection such as removing the raised channelized island on Temple Street. However, a better option would be to initiate discussions with the owner of the 30 Temple Street property regarding the potential redevelopment opportunities for the adjacent parcels, which perhaps could include the reconfiguration of the intersection in such a way as to connect Spring Street directly into the intersection. Also, given the offset configuration of the Main Street/Park Street/Water Street intersection, it may be best to maintain the one-way westbound restriction for the short (approximately 100') western most section of Park Street. Connection to Pearson Street would be maintained through the existing parking lot. Prior to the City advancing the conversion to two-way flow along Court Street and Park Street it would be advantageous to work with the owner of the 30 Temple Street property to consider whether a reconfiguration of the Court Street/Temple Street intersection could be coordinated with any development proposal.

Share the Road Philosophy

Providing additional designated bicycle lanes within the existing cross-section of the Downtown streets would be difficult without sacrificing on-street parking. Although there is strong advocacy for improved bicycle connectivity, there does not appear to be strong support for providing designated bicycle lanes along Downtown streets – particularly if doing so would impact on-street parking. Nevertheless, there are actions that the City can take to encourage bicycle use and enhance the experience of bicyclists. The City should continue to advance off-road opportunities for connectivity such as the Nashua Heritage Rail Trail and the Nashua Riverwalk. Bike racks could be installed throughout the Downtown. The City recently purchased bike racks as part of the sidewalk reconstruction project and is currently working to identify locations where the racks will be placed.



The City could also install more “Share the Roadway” signs, which serve to remind motorists of the multi-modal character of the Downtown. Moreover, in addition to these specific actions, the City should, within the core of the Downtown, establish a “Share the Road” philosophy. The concept of share the road stems from the idea that all roadways within the core area of the Downtown should have a look and feel of an area where motorists will expect to see and will be welcoming to pedestrians and bicyclists. This is best accomplished by minimizing the pavement width of travel lanes while maximizing the width of sidewalks and providing numerous areas where people are encouraged to gather.

Concurrent Pedestrian Signal Phasing

Together with the share the road philosophy, the City should consider providing concurrent pedestrian signal phasing at all study area intersection. Concurrent pedestrian signal phasing allows pedestrians to cross an intersection at the same time as in the same direction and at the same time (concurrently) with motor vehicles and bicyclists traveling in the same direction. This type of signal phasing, as opposed to exclusive pedestrian phasing that only allows pedestrians to cross when vehicles on all approaches to the intersection are stopped, would provide enhance both pedestrian and vehicular mobility.

Next Steps

This planning study identified a number of issues and potential solutions on a conceptual basis. Some of the actions will require more detailed evaluation and design and some may best be accomplished by, or in partnership with the development community. However, there are steps that the City can begin to take now to improve traffic circulation with the goal of enhancing the experience of those who live, work, and visit the Downtown. These next steps are described as follows:

1. The City should maintain a consistent and continually reinforcing multi-model vision for the Downtown that will serve to guide decision makers over the coming years.
2. As an initial project, the City should consider converting Spring Street from Hollis Street to East Pearl Street from its existing one-way northbound operation to two-way flow. Doing so will necessitate modifications to the East Hollis Street/Spring Street traffic signal at an estimated cost of approximately \$40,000.
3. The City should pursue the two-roundabout alternative at the Walnut Street Oval. This action would serve to improve vehicular, pedestrian, and bicycle mobility while also maximizing developable land. The economic development potential of the area is tremendous. However, the costs are substantial. The roadway reconstruction cost alone (not including land costs) are estimated at over \$2 million. A creative public/private partnership with the City working closely with the development community could stimulate economic development within this important part of the Downtown.
4. Upon the completion and opening of the Broad Street Parkway, the City (perhaps in partnership with the NRPC) should conduct updated traffic volume counts throughout the Downtown. Previous studies have estimated diversionary effects of the Parkway. However, prior to committing to any substantial modifications to the Downtown street system, the City should obtain actual post-Parkway traffic volumes. This is particularly important in assessing the increase in traffic demand destined to Main Street from the Parkway.
5. The City should consider converting West Pearl Street to two-way operation. However, to maintain parking on both sides of the roadway, the City would need to reduce the approximately 8' wide sidewalk on the south side of the west end of West Hollis Street by approximately 2 feet. This additional



roadway width could accommodate two 10' travel lanes in addition to maintaining on-street parking on both sides of the roadway. This modification to the sidewalk is estimated to cost approximately \$20,000.

6. The City should begin to evaluate the potential benefits of converting the western segment of Water Street to a pedestrian corridor. Although this may be a longer-term project, providing this pedestrian connection to the Nashua River, particularly if the Walnut Street Oval area gets redeveloped, will continue to reinforce the notion that Downtown Nashua is a pedestrian friendly environment.
7. If the City converts the western segment of Water Street to a pedestrian corridor, the City should then convert Factory Street to two-way flow. Factory Street's existing 36-foot curb-to-curb width would accommodate a single travel lane in each direction while maintaining the existing on-street parking on the south side of the street. This change would require modifications to the Main Street/Factory Street/Temple Street traffic signal.
8. The City should consider converting Court Street and Park Street (with the exception of the short section closest to Main Street) to two-way flow. However, prior to advancing this action, the City should involve the property owner of the 30 Temple Street office building. Converting Court Street to two-way flow would, at a minimum involve modest modifications, to the Court Street/Temple Street intersection such as removing the raised channelized island on Temple Street. However, a better option would be to initiate discussions with the owner of the 30 Temple Street property regarding the potential redevelopment opportunities for the adjacent parcels, which perhaps could include the reconfiguration of the intersection in such a way as to connect Spring Street directly into the intersection.

1

Introduction

1.1 Project Background

Nashua's Downtown serves an integral role in defining the identity and spirit of the community. Main Street and the surrounding roadways that make up the Downtown are places to gather, conduct business, and express the values that unite residents. With this in mind, the City of Nashua retained Vanasse Hangen Brustlin, Inc. (VHB) to evaluate existing traffic circulation within the Downtown and to make suggestions on any needed modifications that might enhance the experience of those who live, work, and visit the Downtown. The purpose of the study is to:

- Develop and evaluate potential actions to improve roadway and intersection traffic flow with regard to mobility
- Strengthen transit, pedestrian, and bicycle connections
- Enhance accessibility for residents and business within the Downtown.

The intent of the study is not to develop or recommend major reconstruction projects, but rather, to identify modest actions that the City might consider implementing over time.

1.2 Study Area

The project study area is generally bound by the Nashua River to the north, Spruce Street to the east, East and West Hollis Streets to the south, and Pine Street to the west. Main Street, which runs in a general north-south direction, bisects the study area approximately in half. The soon to be completed Broad Street Parkway is located on the western extent of the study area. The study area is depicted in **Figure 1**.



LEGEND

-  General Study Area Limits
-  Directional Traffic Flow
-  Existing Traffic Signal
-  Future Traffic Signal
(To be constructed by the Broad Street Parkway Project)

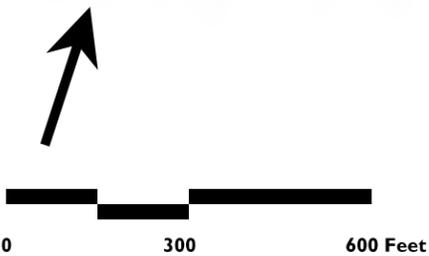


Figure 1
Study Area

2

Existing Conditions

2.1 Introduction

The first step in this study is to establish a clear understanding of the existing conditions within the Downtown study area. This chapter provides a description of existing baseline conditions serving the various modes of transportation (automobile, truck, transit, bicycle, and pedestrian) within the study area. Described and summarized herein are the findings of the data collection effort, the development of the baseline traffic volume networks and the results of the baseline operating conditions. The existing transportation system, including roadways, public transportation, bicycle, pedestrian facilities are also described and summarized.

2.2 Existing Facilities

■ 2.2.1 Roadways

Traffic flow within the study area is primarily controlled along the major arterials of Main Street, West Hollis Street, and East Hollis Street by a total of nine traffic signal controlled intersections. In addition, the study area includes more than 50 unsignalized intersections. Most of the signalized intersections (i.e., all but the Pine-Palm Street signals) provide turning lanes, while the majority of the unsignalized intersections are single lane approaches. Most of the unsignalized intersections are controlled by both pavement markings (STOP bars) and signage (YIELD or STOP signs). There are a few exceptions (nine intersections) where pavement markings are present, but no signage. These intersections are Clocktower Place at the Walnut Street Oval, West Hollis Street at Beech Street, Quincy Street at Foundry Street, Foundry Street at Holmes Street, Elm Street at Garden Street, Walnut Street at Cedar Street, Spruce Street at Worcester Street, Spruce Street at Howard Street, and Spring Street at Hosmer Avenue.

Numerous one-way streets are located throughout the study area. Factory Street/Temple Street form an east-west one-way pair (couplet) with East and West Pearl Streets. West Hollis Street forms another east-west couplet with Kinsley Street, which is located just beyond the southern boundary of the study area. Factory

Street/Temple Street carries eastbound traffic flow while East and West Pearl Streets provide westbound flow. Traditionally, in a downtown grid network, one-way streets would alternate between eastbound and westbound roadways. In Nashua, East/West Hollis Streets are oriented for westbound travel while Kinsley Street is oriented for eastbound travel. This reverse orientation can be challenging for motorists who are unfamiliar with the area. There are also north-south one-way pairs consisting of Pine Street with Palm Street, Ash Street with Vine Street, and Chestnut Street with Walnut Street. These north-south one-way pairs do alternate with northbound roads adjacent to southbound roads followed by northbound roads again for most streets west of Main Street. An exception occurs just east of Main Street where northbound Spring Street does not have a corresponding one-way pair.

Roadways throughout the east end of the study area, as well as East Hollis Street and West Hollis Street, have posted speed limits of 30 mph. Posted speed limits throughout the west end of the study area, as well as along Main Street, are 25 mph.

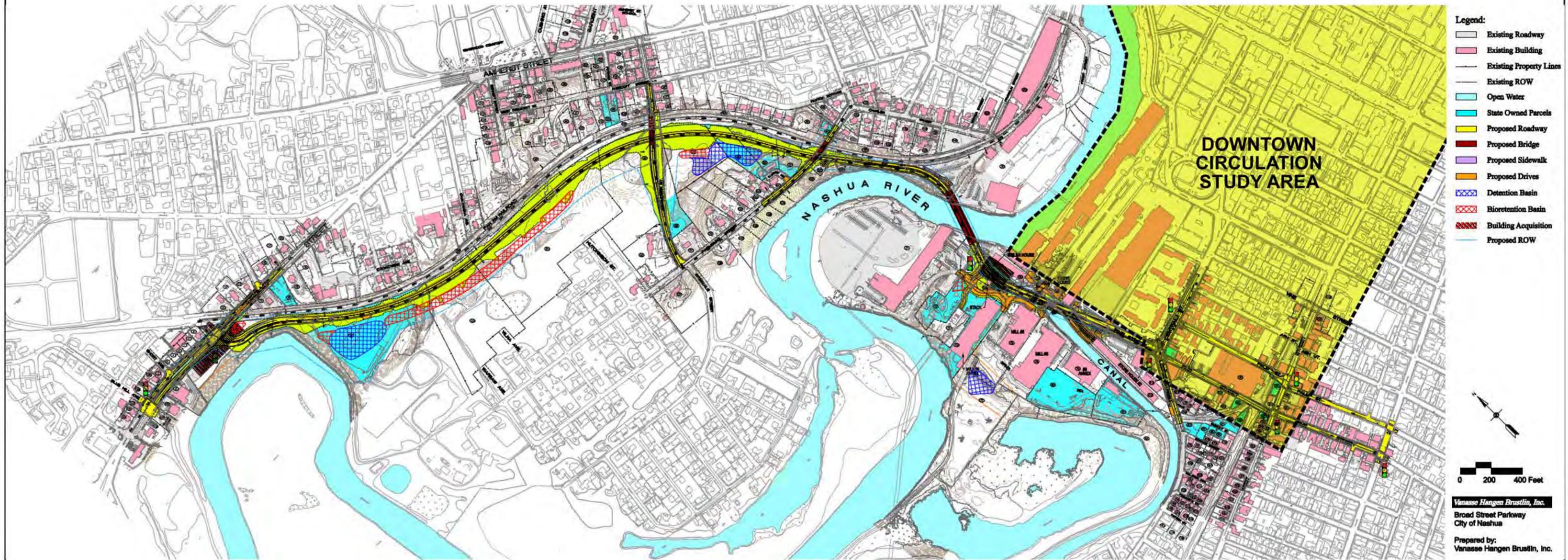
For the purpose of this study, the evaluation considers that the Broad Street Parkway is complete and fully operational. The 1.8 mile roadway will provide a link between Broad Street (NH Route 130) on the north side of the Nashua River and the West Hollis and Kinsley Street couplet on the south side of the river. This roadway connects the Millyard District directly to the north side of the river bypassing Main Street. The Broad Street Parkway is intended to divert north-south traffic from Main Street and provide greater access to the Millyard. **Figure 2** shows the finalized concept plan for the Broad Street Parkway in relation to the study area. Although the Final Environmental Impact Statement and all supporting analyses identified the Broad Street Parkway to be opened by 2017, the City has expedited the project and completion is currently targeted as early as August 2015. Nevertheless, this study considers 2017 as the baseline condition.

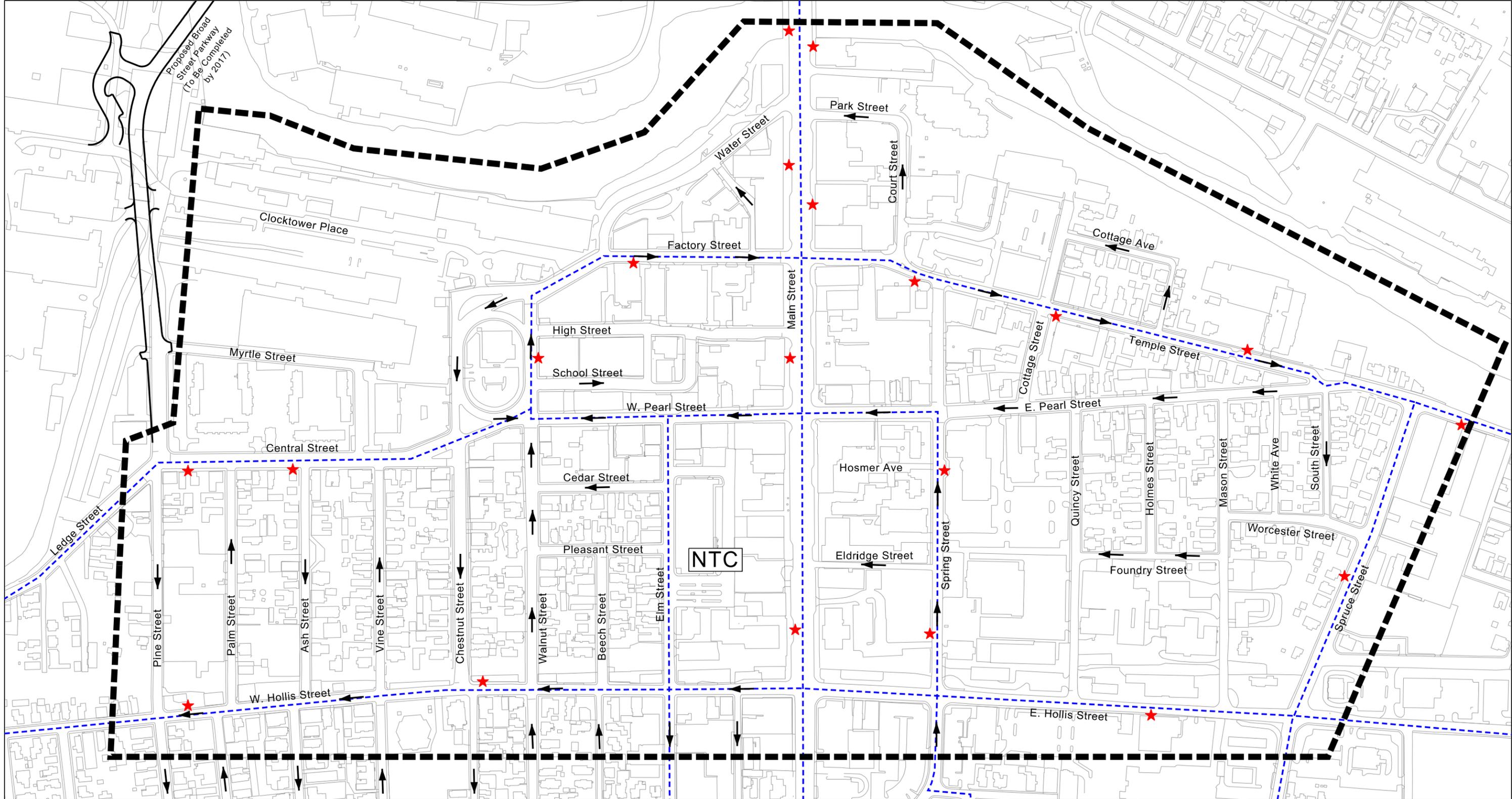
■ 2.2.2 Public Transportation

Public transit is currently provided within the study area by the Nashua Transit System (NTS) with the Nashua Transit Center located on Elm Street adjacent Nashua City Hall. NTS has provided public transportation since 1886 and has routes extending throughout the City. Three major services are provided by NTS: Citybus – a daytime fixed route service; After 7 – an evening fixed route service; and City Lift a paratransit and senior citizen service running on the same routes as Citybus with expanded service areas. All routes begin and end at the transit center. The primary roadways with transit activities within the study area are Elm Street (location of transit center) Main Street, Temple Street/Factory Street and East/West Hollis Street. The study area bus routes and bus stops are depicted graphically in **Figure 3**.

■ 2.2.3 Bicycle and Pedestrian

Pedestrian amenities are important to encourage walking trips within the downtown. Safe and efficient pedestrian mobility contributes to a vibrant downtown. Pedestrian facilities within the Downtown consist primarily of sidewalks and crosswalks along





LEGEND

-  General Study Area Limits
-  Directional Traffic Flow
-  Nashua Transit Center
-  Approximate Bus Stop Locations
-  Bus Routes

public streets, but also include internal connections on and between building sites. As shown in **Figure 4**, sidewalks are provided along nearly all streets within the study area with only minor exceptions. Crosswalks are present at major roadway intersections while midblock crossings are present along East Pearl Street, Main Street, Temple Street, Pine Street, and Palm Street. There are walkways located between buildings that provide pedestrian connectivity. One example is the pedestrian connection linking School Street and West Pearl Street on the south side of the School Street parking lot.

The Heritage Rail Trail is located on the west side of the study area parallel to West Hollis Street. Starting at Main Street near City Hall, the Heritage Rail Trail extends westward and parallel to West Hollis Street for approximately 1.3 miles. This paved rail trail is shared by both pedestrians and bicyclists. While the trail has many roadway crossings, it provides separation from the heavy traffic flow that can be found along West Hollis Street.

Other than the Nashua Heritage Rail Trail, there are few defined bicycle facilities within the study area. Defined bicycle lanes are provided on Temple Street, between Spring Street and East Pearl Street, and on East Pearl Street, between Spring Street and Temple Street. Temple Street and East Pearl Street are both one-way roadways with marked parking generally on both sides of the roadway. Bicycle lanes are marked and include both diamond and bicycle shaped identification markings. Bicycle shoulders are also provided along Pine Street, Palm Street, and will be provided along the soon-to-be completed Broad Street Parkway.

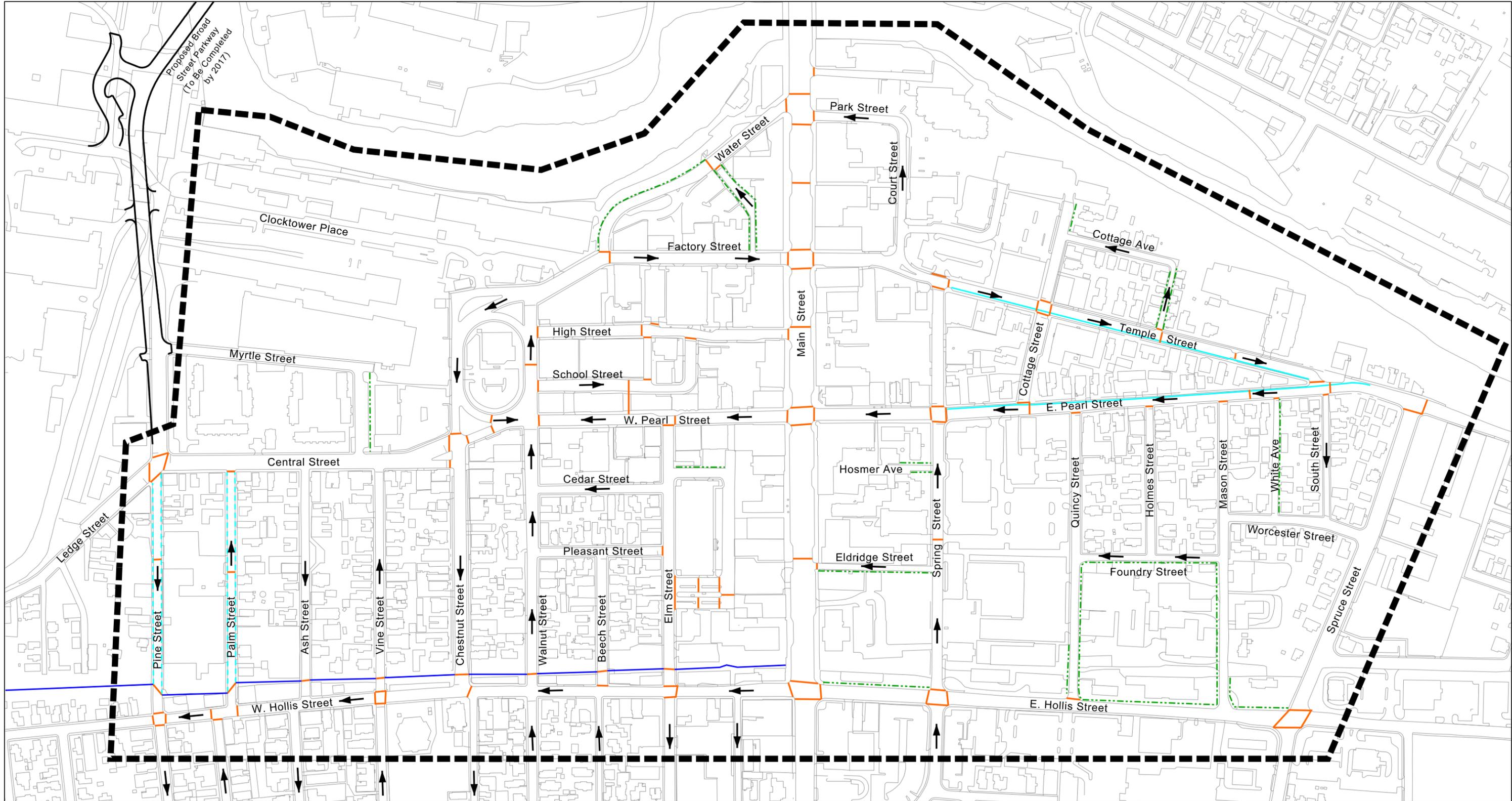
Also as shown in **Figure 4**, the Heritage Rail Trail and the bicycle lanes are not connected. This may discourage recreational and young bicyclists from using these existing bike facilities. Additionally, no bicycle racks were observed (observations conducted in winter) which discourages the use of bicycles due to lack of parking/storing opportunities. However, the City has recently purchased bike racks as part of the City's sidewalk reconstruction project. The City is currently considering where best to locate the bike racks.

2.3 Traffic Operations

■ 2.3.1 Traffic Volumes

To determine the existing traffic volume demands and flow patterns within the study area, a traffic volume count program was conducted in January 2013. Weekday morning (7:00-9:00 AM) and weekday evening (4:00-6:00 PM) peak period manual turning movement counts were conducted at select intersections to fill gaps in the available historical data. Historical data was available from multiple sources including Nashua Citywide Traffic Signals at Various Locations Project (2012), Pine Street & Palm Street Improvement Project (2011), Broad Street Parkway Final Environmental Impact Statement (2010), and automatic traffic recorder (ATR) counts from the Nashua Regional Planning Commission (NRPC) (2002-2012).

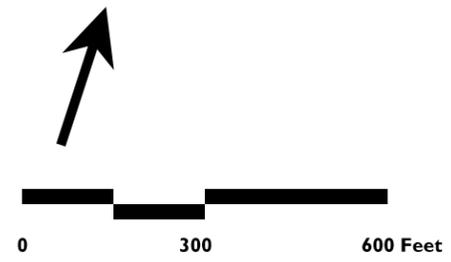
Review of the hourly traffic volume variations for the average weekday condition at three locations throughout the study area (Main Street north of East/West Hollis



LEGEND

-  General Study Area Limits
-  Directional Traffic Flow
-  Crosswalks
-  No Sidewalk
-  Signed/Striped Bike Lanes
-  Bike Shoulder
-  Heritage Trail (multi-use path)

Figure 4
Pedestrians and Bicyclist Facilities



Street, East Hollis Street east of Main Street, and Chestnut Street north of West Hollis Street) are shown in Figures 5 through 7 and depict a combination of commuter and local driver characteristics. The commuter characteristics are reflected with the peaks during the morning and evening rush hours. However, the relatively high traffic volume maintained during the core hours of the day suggests that commuting traffic is not the only major influence in this area and that traffic is generally steady throughout the day. It should be noted that these hourly variation figures from 2011 and 2012 reflect existing travel patterns and may change once the Broad Street Parkway is constructed.

Figure 5 Hourly Volumes - Main Street North of Hollis Street

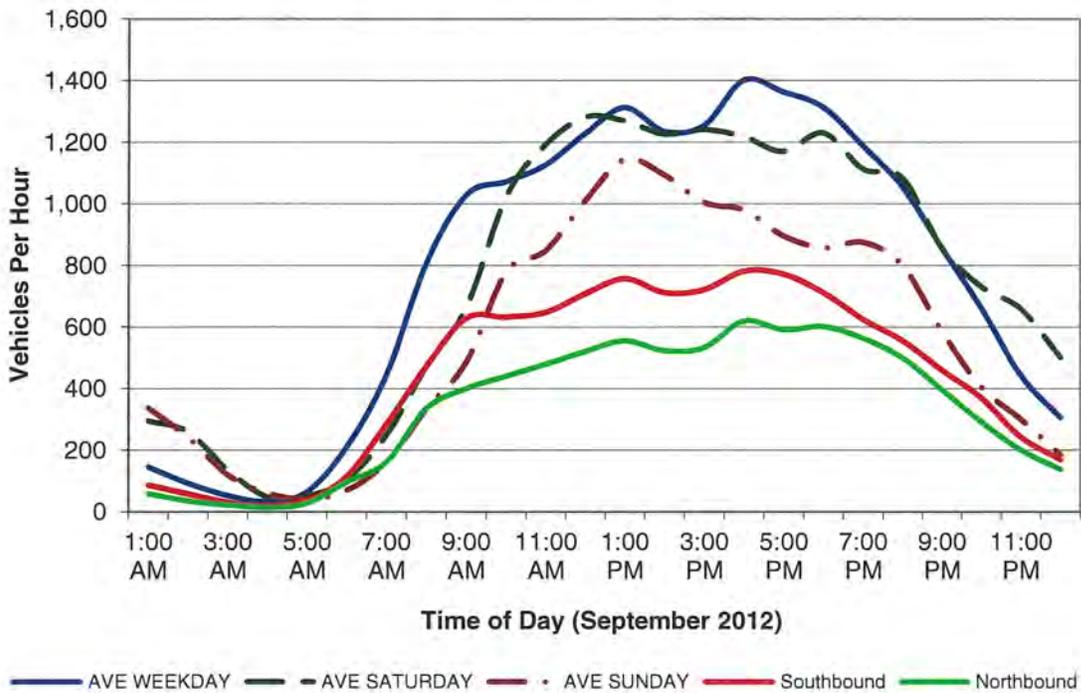


Figure 6 Hourly Volumes - East Hollis Street East of Main Street

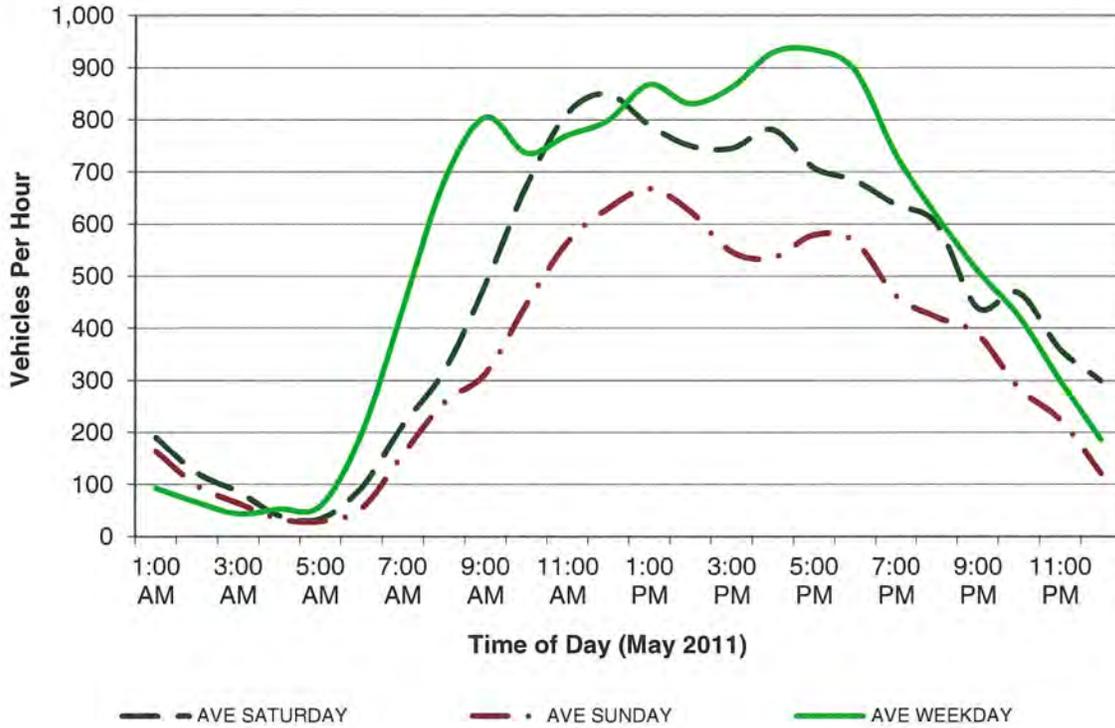
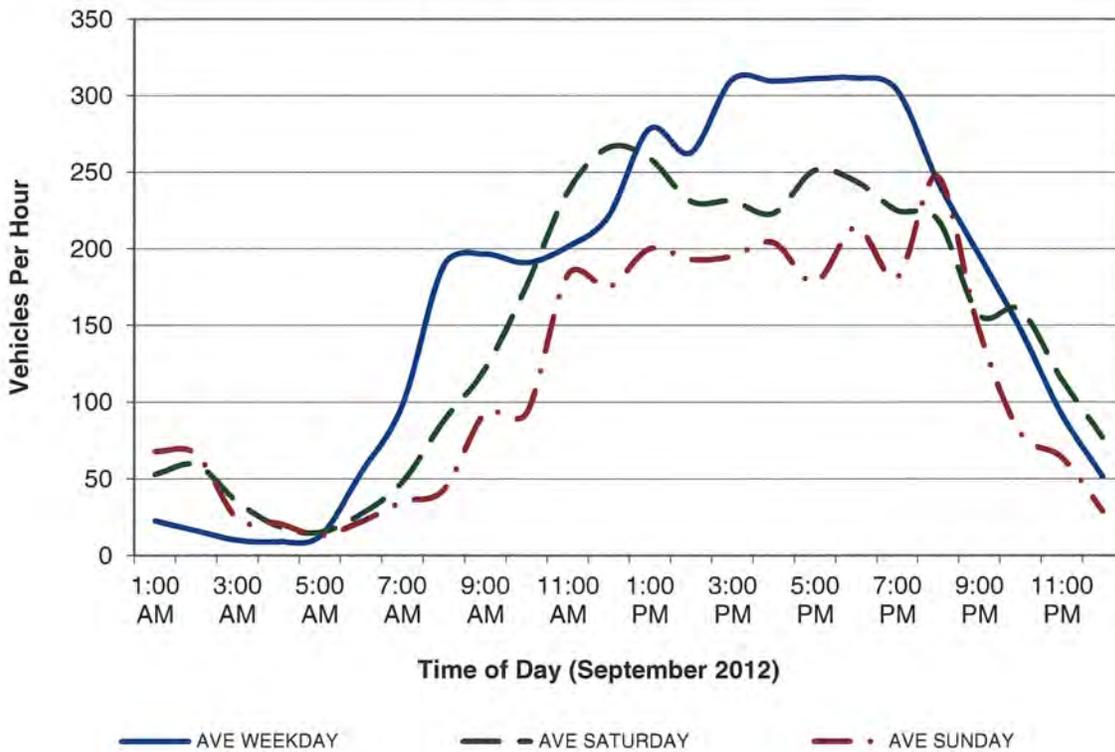


Figure 7 Hourly Volumes - Chestnut Street North of West Hollis Street



■ 2.3.2 Seasonal Variation

The New Hampshire Department of Transportation (NHDOT) “Policy Relating to Driveways and Access to the State Highway System” requires that traffic studies consider traffic operations based on “peak month” conditions. This methodology provides a conservative approach to traffic forecasting for situations where studies can ultimately result in the design of roadway or intersection improvements. For this reason, the traffic volume data used for this evaluation were adjusted to reflect a peak month. Historical traffic data from nearby NHDOT permanent count stations were reviewed to determine seasonal traffic variations throughout the City of Nashua. The data indicates that June typically represents the peak month condition. Therefore, the weekday peak hour traffic volumes collected in January were increased by 15 percent to reflect June conditions. Historical traffic data was adjusted to reflect June conditions as necessary.

Base condition traffic volume networks were developed for the 2017 weekday morning and weekday evening peak hours using the traffic volumes counts conducted for the study, historical traffic data, and the completion of the Broad Street Parkway. Worst case morning and evening peak hour networks were developed using the individual location peak hours to provide a conservative analysis. **Figures 8 and 9** depict the 2017 traffic volume networks for the weekday morning and evening peak hours, respectively. The 2017 volumes are considered the existing or No Build conditions for the purpose of this report.

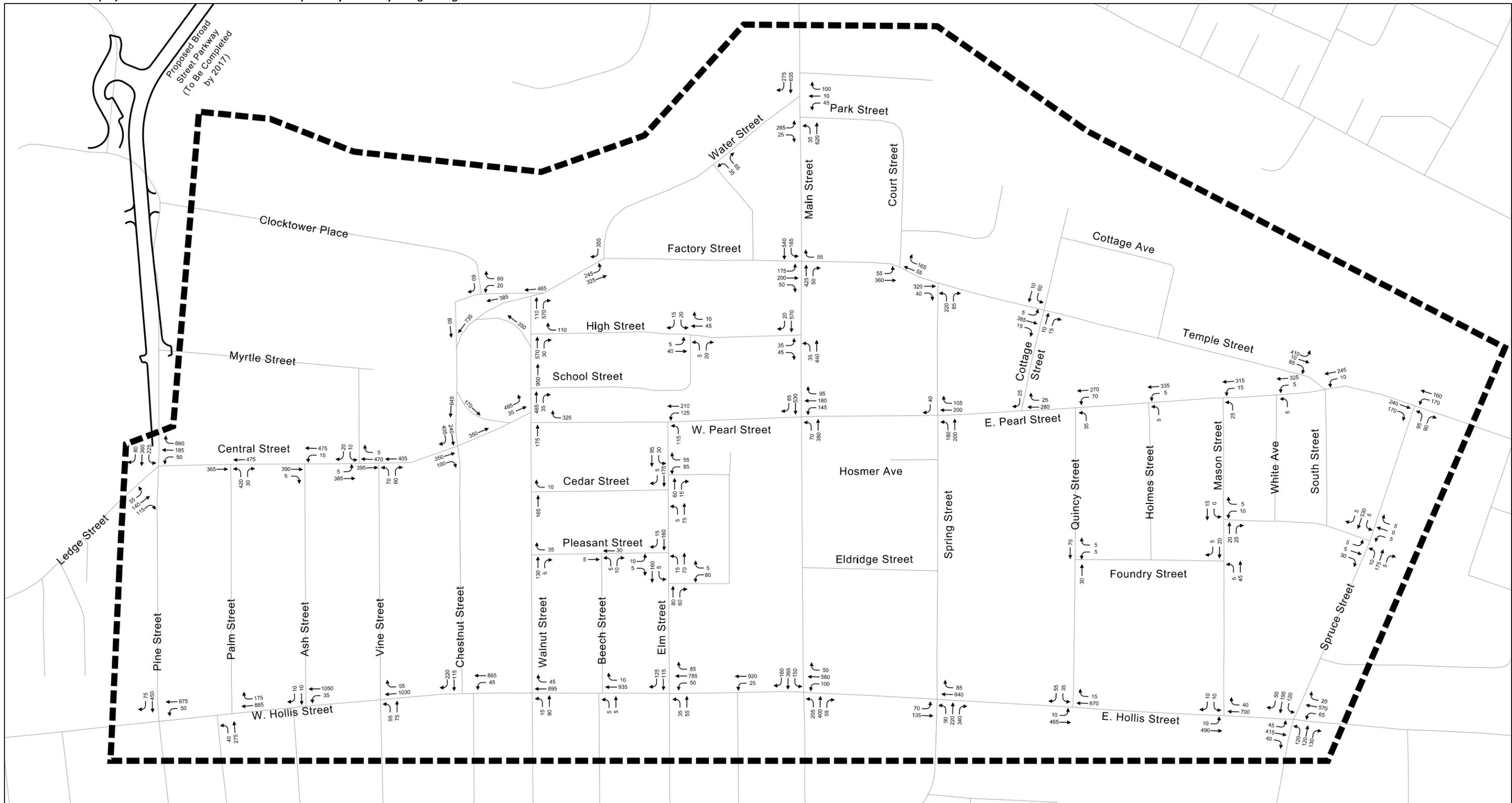
■ 2.3.3 No Action Traffic Operations

Measuring the volume of traffic throughout the study area roadways and intersections quantifies the vehicular traffic demand, but does not give an indication of the quality of traffic flow. To assess the quality of traffic flow, capacity analyses were conducted to determine how well the intersections serve the traffic demands placed upon them during peak hours. The evaluation criteria used in the operational analyses is based on the methodology presented in the 2000 Highway Capacity Manual¹.

The primary result of an intersection capacity analysis is the assignment of level of service (LOS), which is a qualitative measure describing operational conditions. The capacity analysis utilizes factors such as speed and travel time, density or freedom to maneuver, traffic interruptions, comfort, and convenience to provide an index to quality of traffic flow. Six levels of service are defined ranging in letter designation from LOS A to LOS F, with LOS A representing the best operating conditions and LOS F representing the worst.



¹ 2000 Highway Capacity Manual, Transportation Research Board, Washington, D.C.

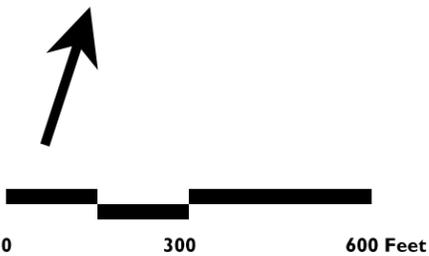


LEGEND

— General Study Area Limits



Figure 9
2017 Weekday Evening
Peak Hour Traffic Volumes
(Including construction of the
Broad Street Parkway)



The level of service designation is reported differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of all traffic entering the intersection and the level of service designation is for the overall conditions at the intersection. Unsignalized intersection analyses assume that through traffic on the main line is not affected by traffic on the side streets. Thus, LOS designations are for the turning movements at the intersections and not for the overall intersection.

Figure 10 summarizes the results of the level of service analyses for the study area intersections, which are also documented by volume-to-capacity (v/c) ratio and average delay in Tables 1 and 2. It is noted that the intersections of Central Street/Ledge Street at Pine Street and Central Street at Palm Street are currently unsignalized intersections. As part of the Broad Street Parkway construction, the intersections will be placed under traffic signal control. Traffic operational analyses were completed for the baseline (with Broad Street Parkway) weekday morning and weekday evening peak hours.

2.3.3.1 Signalized Intersections

All study area signalized intersections are part of a signal system with time-based coordination plans. The timing used for the signalized intersection analysis comes from the Nashua Citywide Traffic Signals at Various Locations Project (2012) for the majority of the signals. The Central Street intersections with Pine Street and Palm Street are expected to be integrated into the signal system as part of the Broad Street Parkway construction project (plans are currently under development) and therefore intersection timings have been assumed that complement the system timings at adjacent signalized intersections.

The results of the traffic operational capacity analyses reveal that of the eleven signalized intersections, seven operate at good levels of service (LOS C or better) during both peak periods. The signalized intersections expected to operate at LOS D during one or more peak periods include East Hollis Street at Spring Street/Medical Center Drive, East Hollis Street at Spruce Street/Harbor Avenue, Main Street at East/West Hollis Street, and West Hollis Street at Palm Street. Only East Hollis Street at Spruce Street/Harbor Avenue operates at LOS D under both peak hour periods. None of the study area signalized intersections are forecast to operate at poor levels of service (LOS E or F) under the baseline condition *with construction of the Broad Street Parkway*.

2.3.3.2 Signalized Intersections (Pre-Broad Street Parkway)

Additionally, note that previous² traffic operational analyses of the pre-Broad Street Parkway condition show poor levels of service (D or worse) along Main Street at several of the study area's signalized intersections during one or more of the peak hour conditions. These Main Street intersections include the following:

▼
² Traffic Operational Analyses in support of the "Broad Street Parkway Final Environmental Impact Statement", January 2010, and "Engineering Study" for Nashua #14432, X-A000(372) CMAQ Citywide Traffic Signals at Various Locations, March 13, 2012.

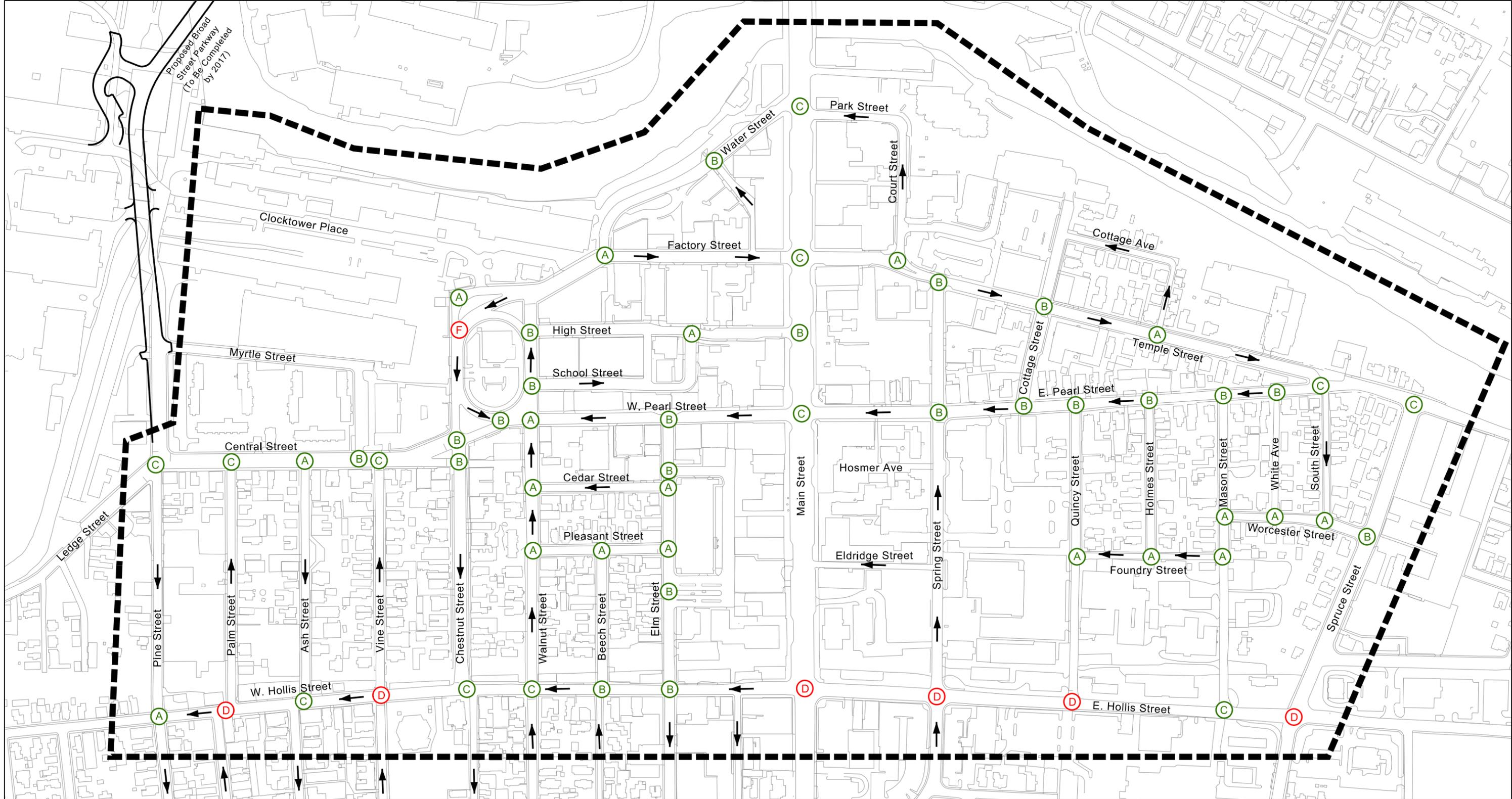


Figure 10
2017 Existing
Level of Service Summary

- Water Street/Park Street (LOS E),
- Factory Street/Temple Street (LOS D), and
- East/West Pearl Street (LOS D).

Poor operating conditions are further reflected at the following Main Street signalized intersections located just north of the study area:

- Franklin Street/Canal Street (LOS E), and
- Library Hill, Amherst Street/Lowell Street/Concord Street (LOS E/F).

As shown in the **Table 1**, the above listed Main Street intersections are forecast to improve by at least one level of service with the construction of the Broad Street Parkway (which draws traffic away from Main Street as an optional north/south arterial). A similar level of service improvement (by one level) is also forecast for signalized intersections (i.e., Franklin Street/Canal Street and Library Hill to LOS D) located outside the Downtown circulation study area.

Table 1
Signalized Intersection Analysis Summary

| | | 2017 No Action | | |
|---|----|----------------|---------|--------|
| | | v/c* | Delay** | LOS*** |
| Pine Street at Ledge Street/Central Street | AM | 0.50 | 24 | C |
| | PM | 0.56 | 23 | C |
| West Hollis Street at Pine Street | AM | 0.45 | 3 | A |
| | PM | 0.51 | 3 | A |
| Main Street at Water Street/Park Street | AM | 0.51 | 18 | B |
| | PM | 0.52 | 25 | C |
| Main Street at Factory Street/Temple Street | AM | 0.38 | 16 | B |
| | PM | 0.46 | 26 | C |
| Main Street at East/West Pearl Street | AM | 0.50 | 21 | C |
| | PM | 0.47 | 22 | C |
| Main Street at East/West Hollis Street | AM | 0.54 | 29 | C |
| | PM | 0.69 | 45 | D |
| West Hollis Street at Elm Street | AM | 0.41 | 8 | A |
| | PM | 0.48 | 11 | B |
| East Hollis Street at Spring Street | AM | 0.39 | 28 | C |
| | PM | 0.42 | 43 | D |
| East Hollis Street at Spruce Street | AM | 0.60 | 35 | D |
| | PM | 0.74 | 51 | D |
| West Hollis Street at Palm Street | AM | 0.58 | 29 | C |
| | PM | 0.78 | 46 | D |
| Central Street at Palm Street | AM | 0.38 | 23 | C |
| | PM | 0.44 | 19 | B |

* Volume to Capacity Ratio.

** Delay in seconds per vehicle

*** Level of service.

2.3.3.3 Unsignalized Intersections

As summarized in **Table 2**, most of the unsignalized intersections have turning movements operating at good levels of service (LOS C or better) during the peak hours. However, three intersections have one or more side street approaches operating at LOS D or worse. The Quincy Street stop-controlled approach to East Hollis Street operates at LOS D during the weekday evening peak hour. The Vine Street stop-controlled northbound approach to West Hollis Street operates at LOS D during the weekday evening peak hour. Finally, the Chestnut Street intersection with Factory Street (which is part of the Walnut Street Oval) operates at LOS F during the weekday evening. All of these poor levels of service occur on the minor legs of unsignalized intersections where long delays are a result of the high through volumes on the major intersection legs, making it challenging for side street motorists to enter onto major roadways.

Table 2
Unsignalized Intersection Analysis Summary

| | | 2017 Weekday Morning | | | 2017 Weekday Evening | | |
|---|-----------------------------|----------------------|---------|--------|----------------------|-------|-----|
| | | Demand* | Delay** | LOS*** | Demand | Delay | LOS |
| Central St. at Ash St. | Central St WB | 520 | 1 | A | 490 | 1 | A |
| Pleasant St. at Elm St. | Pleasant St EB | 5 | 9 | A | 15 | 10 | A |
| | Elm St NB | 90 | 1 | A | 85 | 1 | A |
| School St. at Walnut St. | School St EB Left Turns | 260 | 12 | B | 323 | 14 | B |
| | School St EB Left-Through | 150 | 11 | B | 197 | 13 | B |
| West Hollis St. at Ash St. | W Hollis St WB | 830 | 1 | A | 1085 | 1 | A |
| | Ash St SB | 30 | 16 | C | 20 | 18 | C |
| Central St. at Vine St. | Vine St NB | 60 | 15 | B | 130 | 16 | C |
| Chestnut St. at Central St. (driveway) | Central St EB | 85 | 9 | A | 105 | 10 | A |
| | Chestnut St SB | 125 | 0 | - | 240 | 10 | B |
| West Hollis St. at Walnut St. | Walnut St NB | 110 | 15 | B | 105 | 19 | C |
| Main St. at High St | High St EB | 40 | 13 | B | 80 | 12 | B |
| | Main St NB Left Turns | 45 | 9 | A | 35 | 9 | A |
| School St. at School St. Merge | School St (Merge) EB | 80 | 10 | A | 170 | 10 | B |
| Worcester St. at South St. | South St SB | 10 | 9 | A | 20 | 9 | A |
| Chestnut St. at School St. Merge | Chestnut St SB Left Turns | 53 | 7 | A | 113 | 8 | A |
| | Chestnut St SB Left-Through | 193 | 1 | A | 272 | 2 | A |
| West Pearl St. at Walnut St. | W Pearl St WB Right Turns | 240 | 8 | A | 325 | 9 | A |
| | Walnut St NB | 120 | 7 | A | 175 | 8 | A |
| Central St. at Myrtle St. | Central St EB | 400 | 1 | A | 390 | 1 | A |
| | Myrtle St SB | 10 | 13 | B | 30 | 13 | B |
| Chestnut St. at Factory St. | Chestnut St SB | 95 | 32 | D | 80 | 152 | F |
| | Factory St SW | 485 | 8 | A | 735 | 9 | A |
| Chestnut St. at Central St. | Chestnut St SB | 500 | 10 | B | 645 | 11 | B |
| | Central St EB | 330 | 10 | A | 350 | 10 | B |

* Demand in vehicles per hour.

** Delay per vehicle expressed in seconds.

*** Level of service.

Table 2 Continued
Unsignalized Intersection Analysis Summary

| | | 2017 Weekday Morning | | | 2017 Weekday Evening | | |
|---------------------------------|----------------------------|----------------------|---------|--------|----------------------|-------|-----|
| | | Demand* | Delay** | LOS*** | Demand | Delay | LOS |
| Walnut St. at High St. | High St WB Right Turns | 25 | 9 | A | 110 | 10 | B |
| | Walnut St NB | 730 | 6 | A | 920 | 6 | A |
| Pleasant St. at Walnut St. | Pleasant St WB Right Turns | 10 | 9 | A | 35 | 9 | A |
| West Hollis St. at Chestnut St. | W Hollis St WB | 735 | 1 | A | 910 | 1 | A |
| | Chestnut St SB | 205 | 14 | B | 335 | 17 | C |
| Factory St. at Walnut St. Merge | WB Left Turns | 235 | 12 | B | 350 | 16 | C |
| Worcester St. at Spruce St. | Worcester St EB | 15 | 10 | A | 40 | 11 | B |
| | Worcester St WB | 10 | 10 | A | 10 | 10 | B |
| | Spruce St NB | 145 | 1 | A | 185 | 1 | A |
| | Spruce St SB | 185 | 0 | A | 340 | 1 | A |
| Factory St. at Water St. | Factory St EB | 390 | 3 | A | 570 | 4 | A |
| | Water St SB | 270 | 10 | A | 355 | 10 | A |
| Clocktower Place Merge | Clocktower Place SB | 55 | 9 | A | 60 | 9 | A |
| East Pearl St. at Spring St. | E Pearl St WB | 385 | 11 | B | 305 | 11 | B |
| | Spring St NB Left Turns | 95 | 9 | A | 180 | 10 | A |
| | Spring St SB Right Turns | 25 | 8 | A | 40 | 8 | A |
| Cedar St. at Elm St. | Elm St NB | 90 | 0 | - | 80 | 1 | A |
| Walnut St. at Cedar St. | Cedar St WB Right Turns | 5 | 9 | A | 10 | 9 | A |
| West Hollis St. at Vine St. | Vine St NB | 60 | 16 | C | 130 | 29 | D |
| Temple St. at Spruce St. | Temple St WB | 385 | 3 | A | 330 | 5 | A |
| | Spruce St NB | 140 | 14 | B | 185 | 21 | C |
| Foundry St. at Quincy St. | Foundry St WB | 10 | 9 | A | 10 | 9 | A |
| Foundry St. at Mason St. | Mason St NB | 30 | 1 | A | 50 | 1 | A |
| East Pearl St. at Holmes St. | E Pearl St WB | 420 | 1 | A | 340 | 1 | A |
| | Holmes St NB Left Turns | 5 | 11 | B | 5 | 11 | B |

* Demand in vehicles per hour.

** Delay per vehicle expressed in seconds.

*** Level of service.

Table 2 Continued
Unsignalized Intersection Analysis Summary

| | | 2017 Weekday Morning | | | 2017 Weekday Evening | | |
|-------------------------------|--------------------------|----------------------|---------|--------|----------------------|-------|-----|
| | | Demand* | Delay** | LOS*** | Demand | Delay | LOS |
| Foundry St. at Holmes St. | Holmes St SB Right Turn | 5 | 8 | A | 5 | 8 | A |
| East Pearl St. at Mason St. | E Pearl St WB | 420 | 1 | A | 330 | 1 | A |
| | Mason St NB Left Turn | 20 | 12 | B | 25 | 11 | B |
| Worcester St. at Mason St. | Worcester St WB | 30 | 9 | A | 15 | 9 | A |
| Worcester St. at White Ave. | White Ave SB | 5 | 8 | A | 5 | 8 | A |
| East Pearl St. at White Ave. | E Pearl St WB | 420 | 1 | A | 330 | 1 | A |
| | White Ave NB Left Turn | 5 | 11 | B | 5 | 11 | B |
| East Pearl St. at Temple St. | Temple St WB | 345 | 1 | A | 255 | 1 | A |
| | Temple St SB | 270 | 15 | C | 505 | 23 | C |
| Temple St. at Cottage St. | Temple St EB | 320 | 2 | A | 405 | 1 | A |
| | Cottage St NB | 25 | 11 | B | 25 | 11 | B |
| | Cottage St SB | 20 | 12 | B | 70 | 13 | B |
| East Pearl St. at Quincy St. | E Pearl St WB | 420 | 2 | A | 340 | 2 | A |
| | Quincy St NB Left Turn | 35 | 13 | B | 35 | 12 | B |
| East Pearl St. at Cottage St. | Cottage St SB Right Turn | 25 | 11 | B | 25 | 10 | A |
| Temple St. at Spring St. | Spring St NB | 250 | 12 | B | 305 | 14 | B |
| Temple St. at Cottage Ave | Temple St EB | 275 | 1 | A | 450 | 1 | A |
| Cottage St. at Cottage Ave | Cottage Ave WB | 5 | 9 | A | 5 | 9 | A |
| East Hollis St. at Quincy St. | E Hollis St EB | 465 | 1 | A | 475 | 1 | A |
| | E Hollis St WB | 660 | 0 | A | 710 | 1 | A |
| | Quincy St SB | 70 | 23 | C | 90 | 29 | D |
| East Hollis St. at Mason St. | E Hollis St EB | 485 | 1 | A | 500 | 1 | A |
| | Mason St SB | 40 | 20 | C | 20 | 22 | C |
| Spring St. at Hosmer Ave | Hosmer Ave EB | 5 | 10 | A | 5 | 10 | A |
| | Spring St NB | 255 | 2 | A | 375 | 0 | A |

* Demand in vehicles per hour.

** Delay per vehicle expressed in seconds.

*** Level of service.

Table 2 Continued
Unsignalized Intersection Analysis Summary

| | | 2017 Weekday Morning | | | 2017 Weekday Evening | | |
|-------------------------------------|-------------------------|----------------------|---------|--------|----------------------|-------|-----|
| | | Demand* | Delay** | LOS*** | Demand | Delay | LOS |
| Temple St. at Court St. | Temple St EB | 290 | 1 | A | 415 | 1 | A |
| Church St. at Court St. | Church St WB Right Turn | 10 | 9 | A | 50 | 9 | A |
| Elm St. at Garden St. (north) | Garden St WB | 25 | 11 | B | 140 | 10 | B |
| | Elm St SB | 145 | 4 | A | 125 | 2 | A |
| Elm St. at Garden St. (south) | Garden St WB | 10 | 9 | A | 85 | 11 | B |
| | Elm St SB | 80 | 1 | A | 165 | 1 | A |
| Pleasant St. at Beech St. | Beech St NB | 5 | 9 | A | 15 | 9 | A |
| West Hollis St. at Beech St. | Beech St NB | 10 | 11 | B | 10 | 13 | B |
| School St. at High St. | High St EB | 30 | 4 | A | 45 | 1 | A |
| | School St NB Left Turn | 5 | 9 | A | 5 | 9 | A |
| | School St NB Right Turn | 20 | 8 | A | 20 | 8 | A |
| | Garage SB Left Turn | 5 | 9 | A | 20 | 9 | A |
| | Garage SB Right Turn | 10 | 9 | A | 15 | 9 | A |
| Water St. at Mechanic St. | Mechanic St WB | 15 | 10 | A | 100 | 12 | B |
| West Pearl St. at Elm St. | W Pearl St WB Left Turn | 145 | 7 | A | 125 | 7 | A |
| | Elm St NB Right Turn | 40 | 13 | B | 115 | 14 | B |
| Pine St. at Bagshaw Building | Bagshaw Bldg. EB | 25 | 13 | B | 65 | 14 | B |
| | Clocktower WB Left-Thru | 35 | 15 | C | 45 | 20 | C |
| | Clocktower Pl WB Right | 25 | 11 | B | 65 | 15 | B |
| | Pine St NB Left Turn | 30 | 9 | A | 20 | 9 | A |
| | Pine St SB Left Turn | 30 | 8 | A | 30 | 9 | A |
| Pine St. at Green Building S. Drive | Gate City Dr EB | 10 | 13 | B | 20 | 15 | C |
| | Green Bldg. WB | 5 | 14 | B | 25 | 16 | C |
| | Pine St NB Left Turn | 15 | 9 | A | 10 | 9 | A |
| | Pine St SB Left Turn | 10 | 8 | A | 5 | 9 | A |
| Pine St. at Myrtle St. | Saigon Market EB | 20 | 13 | B | 25 | 16 | C |
| | Myrtle St WB | 25 | 13 | B | 25 | 15 | C |
| | Pine St NB | 495 | 1 | A | 715 | 1 | A |
| | Pine St SB | 540 | 1 | A | 665 | 1 | A |

* Demand in vehicles per hour.

** Delay per vehicle expressed in seconds.

*** Level of service.

■ 2.3.4 Crash Evaluation

Crash data for the years 2002 through 2010 were gathered for selected locations from the NHDOT crash database. The data was reviewed to identify high crash locations within the study area and the characteristics of the crashes occurring at these locations. **Table 3** provides a summary of the crash history. Note that crashes reported for the intersections of Pine Street with Central Street and West Hollis Street are before Pine Street became one-way southbound as part of improvements for the Broad Street Parkway.

A total of 402 crashes occurred at the selected locations during the nine-year period. This equates to an average of 45 crashes per year (with a high crash total of 80 in 2006 and a low of 22 in 2005). Fifty percent of the crashes resulted in a personal injury with the other fifty percent resulting in only property damage. No fatalities were identified and of the injury related crashes, only six were identified as resulting in a severe injury.

The majority of crashes were identified as general motor vehicle crashes (76 percent) with some rear-end (5 percent), sideswipe (1 percent), and angled (6 percent) crashes also identified. The remaining crashes include fixed object crashes, bicycle crashes, and pedestrian crashes. Crashes with vulnerable road users (pedestrians and bicyclists) make up 9 percent of the total crashes.

There were 26 (6 percent) pedestrian related crashes. No discernible pattern is present for locations where pedestrian crashes occur, but there were five intersections out of fifteen locations where more than one pedestrian crash occurred. The Main Street intersection at West Hollis Street/East Hollis Street identified the most with eight pedestrian crashes. Note that this intersections experiences the highest volume of traffic in relation to pedestrian crossings. Additionally, 18 of the 26 (70 percent) pedestrian/vehicle related crashes occurred at signalized intersections that have pedestrian crossing signals. Crash data was inconclusive as to whether these crashes at the signalized intersections were a result of pedestrian crossings against the solid "Don't Walk" signal.

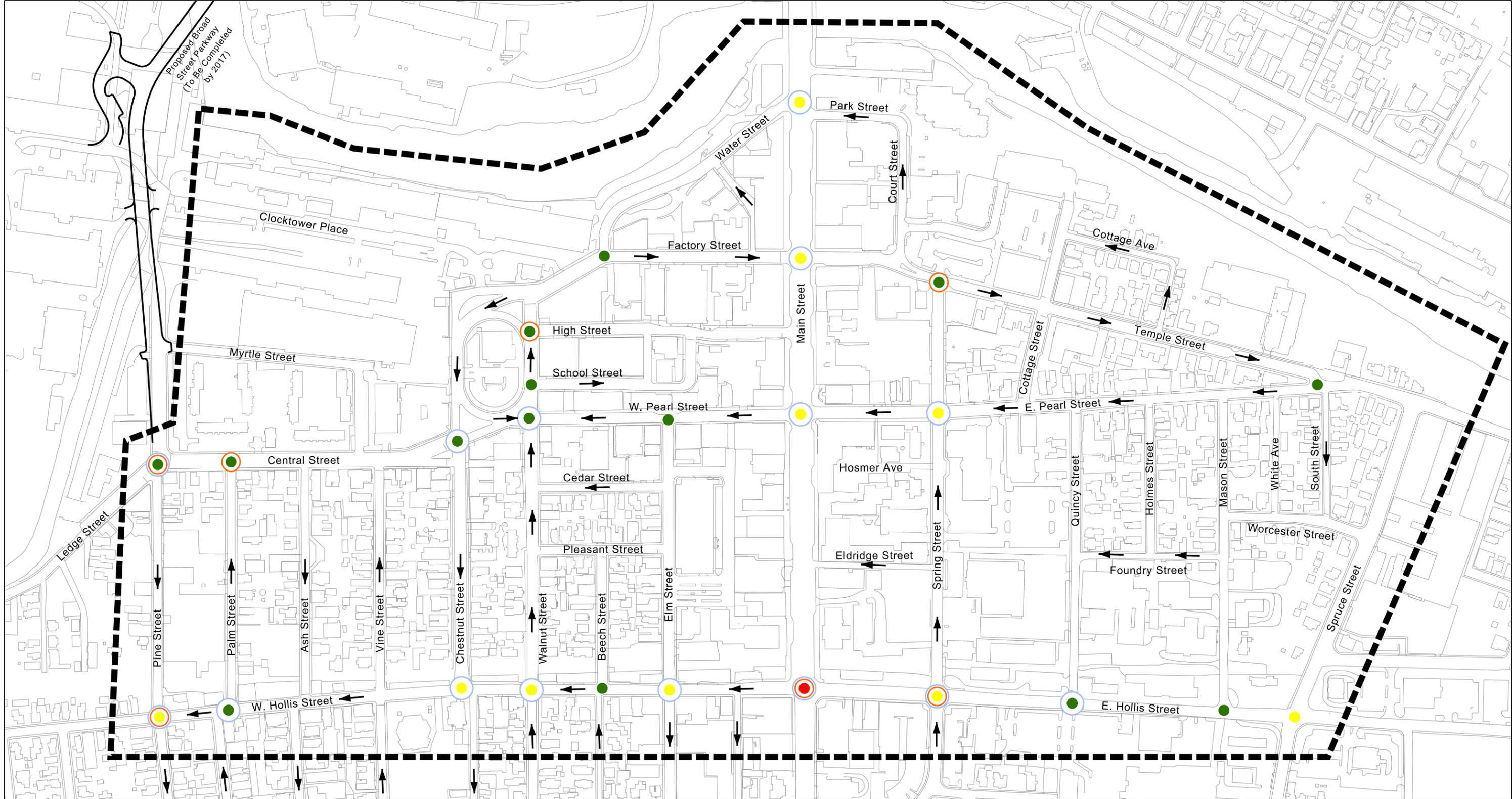
Twelve bicycle crashes occurred at seven intersections. The signalized East Hollis Street intersection at Spring Street had four bicycle crashes. None of the bicycle crashes were in areas where there are existing bike lanes or multi-use paths.

Figure 11 illustrates the average number of crashes per year. The Main Street intersection at West Hollis Street/East Hollis Street has the most reported crashes. With an average of more than 10 crashes per year, 96 crashes were reported at the Main Street intersection with West Hollis Street/East Hollis Street. While this intersection has the most identified crashes, it also experiences the highest volume of traffic in the study area. No type of crash or trend was identified through the available records at this location. **Figure 11** also identifies 10 locations where crash history is between one and five crashes per year and 14 locations where less than one crash per year has been reported. The only general pattern observed from the crash data is that locations with more traffic control, traffic signals and all-way stop control, experience larger numbers of crashes.

**Table 3
Crash Summary**

| INTERSECTION | INTERSECTION | | | | | | | | | | | | | | | | | | TOTAL | PERCENT | | | | | | | | |
|----------------------------|-------------------------------|-----------------------------------|--|--|-----------------------------|-----------------------------|----------------------------|---------------------------------------|--------------------------|----------------------------|-----------------------------|-------------------------------|---------------------------|---------------------------|------------------------------------|------------------------|-----------------------|-----------------------|-------|---------|----------------------|------------------------|------------------------|---------------------------|----------------------------|-------------------------|----------------------------|-----|
| | Main St at Park St / Water St | Main St at Factory St / Temple St | Main St at West Pearl St / East Pearl St | Main St at West Hollis St / East Hollis St | East Hollis St at Spring St | East Hollis St at Quincy St | East Hollis St at Mason St | East Hollis St at Harbor Ave / Spruce | West Hollis St at Elm St | West Hollis St at Beech St | West Hollis St at Walnut St | West Hollis St at Chestnut St | West Hollis St at Palm St | West Hollis St at Pine St | East Pearl Street at Spring Street | Water St at Factory St | Central St at Palm St | Central St at Pine St | | | Walnut St at High St | Walnut St at School St | Temple St at Spring St | Central St at Chestnut St | Temple St at East Pearl St | West Pearl St at Elm St | West Pearl St at Walnut St | |
| YEAR | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2010 | 6 | 10 | | 15 | 6 | | | 4 | 5 | | 1 | | | 3 | 2 | | 1 | | | 1 | | | | | | | 59 | 15% |
| 2009 | 9 | 7 | 3 | 17 | 1 | 1 | | 1 | 6 | | 1 | 2 | | 6 | 2 | 1 | 1 | | | 1 | 1 | | 1 | 1 | 1 | 1 | 61 | 15% |
| 2008 | 6 | 2 | 9 | 13 | 4 | | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | | 1 | | | | | 1 | | | 48 | 12% | |
| 2007 | 1 | 7 | 3 | 11 | 9 | | | 1 | 3 | | 2 | 2 | | 3 | 2 | 1 | | 1 | 1 | | | | 1 | | | 48 | 12% | |
| 2006 | 6 | 10 | 4 | 13 | 13 | 1 | 1 | 6 | 2 | 1 | 1 | 3 | | 7 | 3 | | 1 | 3 | | 1 | 2 | 1 | 1 | | | 80 | 20% | |
| 2005 | 2 | 1 | 1 | 5 | 6 | 1 | | 2 | 1 | | 2 | 1 | | | | | | | | | | | | | | 22 | 5% | |
| 2004 | | 2 | 2 | 6 | 3 | 1 | 1 | 3 | 2 | | 1 | 1 | | 3 | 3 | | | 1 | | | | | | | | 29 | 7% | |
| 2003 | | 2 | | 6 | | 1 | 2 | 1 | 1 | | 1 | 3 | 1 | 5 | 1 | | | 1 | | 1 | | | | | | 26 | 6% | |
| 2002 | 1 | 2 | 10 | 1 | | | 3 | 3 | 1 | | 3 | 2 | | 2 | | | | | | | | | | | 1 | 29 | 7% | |
| Total | 30 | 42 | 24 | 96 | 43 | 5 | 8 | 24 | 22 | 1 | 13 | 15 | 2 | 31 | 14 | 3 | 3 | 7 | 1 | 3 | 3 | 4 | 4 | 2 | 2 | 402 | 100% | |
| TYPE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Other Motor Vehicle | 26 | 39 | 21 | 69 | 34 | 4 | 4 | 19 | 16 | 1 | 8 | 9 | 1 | 19 | 10 | 2 | 2 | 5 | | 3 | 2 | 3 | 4 | 2 | 1 | 304 | 76% | |
| Rear-end | | 1 | 2 | 9 | 1 | | 2 | 3 | | | 1 | 1 | | 2 | | | | | | | | | | | | 22 | 5% | |
| Angle | | 1 | | 5 | 1 | | 2 | 1 | 4 | | 3 | 2 | | 4 | 2 | | | | | | | | | | | 25 | 6% | |
| Sideswipe | | | | | | | | | | | | 1 | | 2 | | | | | | | | | | | | 3 | 1% | |
| Bicyclist | | | | 3 | 4 | | | | | | | | | 1 | | | 1 | 1 | 1 | | 1 | | | | | 12 | 3% | |
| Pedestrian | 2 | 1 | 1 | 8 | 1 | 1 | | | 2 | | 1 | 2 | 1 | 1 | 2 | | | 1 | | | | 1 | | | 1 | 26 | 6% | |
| Fixed Object/ Other Object | 2 | | 2 | 2 | | | 1 | | | | | | | 2 | | 1 | | | | | | | | | | 10 | 2% | |
| Total | 30 | 42 | 24 | 96 | 43 | 5 | 8 | 24 | 22 | 1 | 13 | 15 | 2 | 31 | 14 | 3 | 3 | 7 | 1 | 3 | 3 | 4 | 4 | 2 | 2 | 402 | 100% | |
| SEVERITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Property Damage | 17 | 26 | 12 | 46 | 24 | 1 | 1 | 11 | 6 | | 3 | 6 | 1 | 18 | 10 | 3 | 1 | 2 | | 2 | 2 | 2 | 3 | 2 | 1 | 200 | 50% | |
| Severe Injury | | | 1 | 1 | | | | | 1 | | 1 | 1 | | 1 | | | | | | | | | | | | 6 | 1% | |
| Non-incapacitating Injury | 9 | 9 | 8 | 29 | 14 | 3 | 2 | 5 | 11 | 1 | 6 | 4 | | 10 | 2 | | | | | | | | | | | 113 | 28% | |
| Possible Injury | 4 | 7 | 3 | 20 | 5 | 1 | 5 | 8 | 4 | | 3 | 4 | 1 | 3 | 1 | | | | | | | | | | | 69 | 17% | |
| Personal Injury | | | | | | | | | | | | | | | | | 2 | 5 | 1 | 1 | 1 | 2 | 1 | | 1 | 14 | 3% | |
| Fatality | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0% | |
| Total | 30 | 42 | 24 | 96 | 43 | 5 | 8 | 24 | 22 | 1 | 13 | 15 | 2 | 31 | 14 | 3 | 3 | 7 | 1 | 3 | 3 | 4 | 4 | 2 | 2 | 402 | 100% | |
| DAY OF WEEK | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mon-Fri | 27 | 31 | 16 | 71 | 32 | 5 | 6 | 18 | 19 | 1 | 9 | 11 | 2 | 27 | 13 | 2 | 1 | 4 | 1 | 2 | 3 | 3 | 4 | 2 | 1 | 311 | 77% | |
| Sat-Sun | 3 | 11 | 8 | 25 | 11 | | 2 | 6 | 3 | | 4 | 4 | | 4 | 1 | 1 | 2 | 3 | | 1 | | 1 | | | 1 | 91 | 23% | |
| Total | 30 | 42 | 24 | 96 | 43 | 5 | 8 | 24 | 22 | 1 | 13 | 15 | 2 | 31 | 14 | 3 | 3 | 7 | 1 | 3 | 3 | 4 | 4 | 2 | 2 | 402 | 100% | |
| SURFACE CONDITION | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dry | 23 | 33 | 21 | 65 | 33 | 5 | 5 | 17 | 15 | | 7 | 11 | 2 | 27 | 11 | 3 | 3 | 7 | 1 | 3 | 3 | 4 | 4 | 1 | 2 | 306 | 76% | |
| Wet | 5 | 9 | 3 | 27 | 6 | | 3 | 6 | 6 | 1 | 6 | 2 | | 3 | 3 | | | | | | | | | 1 | | 81 | 20% | |
| Snow / Ice | 2 | | | 4 | 3 | | | 1 | | | | 2 | | 1 | | | | | | | | | | | | 13 | 3% | |
| Other/ Unknown | | | | | 1 | | | | 1 | | | | | | | | | | | | | | | | | 2 | 0% | |
| Total | 30 | 42 | 24 | 96 | 43 | 5 | 8 | 24 | 22 | 1 | 13 | 15 | 2 | 31 | 14 | 3 | 3 | 7 | 1 | 3 | 3 | 4 | 4 | 2 | 2 | 402 | 100% | |
| WEATHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clear/ Cloudy | 24 | 36 | 22 | 81 | 34 | 5 | 5 | 17 | 18 | | 8 | 13 | 2 | 30 | 12 | 3 | 3 | 7 | 1 | 3 | 3 | 4 | 4 | 1 | 2 | 338 | 84% | |
| Rain | 5 | 6 | 2 | 12 | 7 | | 3 | 6 | 4 | 1 | 5 | 1 | | 1 | 2 | | | | | | | | | | 1 | 56 | 14% | |
| Snow / Ice | 1 | | | 2 | 1 | | | 1 | | | | 1 | | | | | | | | | | | | | | 6 | 1% | |
| Other/ Unknown | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | 2 | 0% | |
| Total | 30 | 42 | 24 | 96 | 43 | 5 | 8 | 24 | 22 | 1 | 13 | 15 | 2 | 31 | 14 | 3 | 3 | 7 | 1 | 3 | 3 | 4 | 4 | 2 | 2 | 402 | 100% | |
| LIGHTING | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Daylight | 24 | 23 | 16 | 43 | 31 | 4 | 6 | 18 | 14 | 1 | 7 | 11 | 1 | 26 | 13 | 1 | 3 | 4 | 1 | | 3 | 4 | 3 | 1 | | 258 | 64% | |
| Dawn | | | | 2 | 1 | | | | 1 | | | | | | | | | | | | | | | | | 4 | 1% | |
| Dusk | | | | 1 | | | | | | | 1 | | | | | | | 1 | | | | | | | | 3 | 1% | |
| Dark - Street Lights On | 6 | 18 | 8 | 46 | 11 | 1 | 2 | 5 | 5 | | 5 | 3 | | 5 | 1 | 1 | | 2 | | 3 | | | | | 2 | 124 | 31% | |
| Other/ Unknown | | 1 | | 4 | | | | 1 | 2 | | 1 | 1 | | | | 1 | | | | | | | 1 | 1 | | 13 | 3% | |
| Total | 30 | 42 | 24 | 96 | 43 | 5 | 8 | 24 | 22 | 1 | 13 | 15 | 2 | 31 | 14 | 3 | 3 | 7 | 1 | 3 | 3 | 4 | 4 | 2 | 2 | 402 | 100% | |
| SEASON | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Winter (Dec-Feb) | 5 | 6 | 8 | 24 | 17 | | 1 | 3 | 4 | | 2 | 5 | | 7 | 4 | 1 | | | | 3 | | 2 | 2 | | 1 | 95 | 24% | |
| Spring (Mar-May) | 6 | 6 | 2 | 21 | 12 | 1 | 5 | 5 | 5 | | 3 | 2 | 1 | 8 | 4 | 1 | | 2 | | | 1 | 1 | 1 | 1 | | 88 | 22% | |
| Summer (Jun-Aug) | 7 | 18 | 10 | 23 | 7 | | 1 | 11 | 6 | 1 | 3 | 4 | 1 | 5 | 3 | | 3 | 1 | 1 | | 1 | 1 | | | | 107 | 27% | |
| Fall (Sept-Nov) | 12 | 12 | 4 | 28 | 7 | 4 | 1 | 5 | 7 | | 5 | 4 | | 11 | 3 | 1 | | 4 | | | 1 | | 1 | 1 | 1 | 112 | 28% | |
| Total | 30 | 42 | 24 | 96 | 43 | 5 | 8 | 24 | 22 | 1 | 13 | 15 | 2 | 31 | 14 | 3 | 3 | 7 | 1 | 3 | 3 | 4 | 4 | 2 | 2 | 402 | 100% | |

Source: New Hampshire Department of Transportation.



LEGEND

-  General Study Area Limits
-  Directional Traffic Flow
-  Pedestrian Crash
-  Bike Crash
-  ≤1 Crashes per year
-  1-5 Crashes per year
-  ≥5 Crashes per year

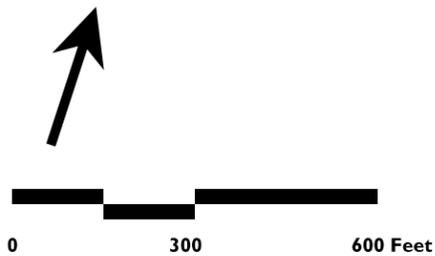


Figure 11

Crash Summary
(2002 - 2010)

2.4 Existing Conditions Summary

A review of existing conditions revealed a vibrant and thriving Downtown. Traffic volume demand is high, not only during the peak commuter hours, but throughout the day. Traffic flow is controlled along the major arterials of Main Street, West Hollis Street, and East Hollis Street by a total of nine traffic signal controlled intersections. Additionally, as part of the Broad Street Parkway project, two new traffic signals will be installed at the Central Street/Pine Street and Central Street/Palm Street intersections.

The results of the operational analyses, with the Broad Street Parkway in place, indicate that each of the signalized intersections are expected to operate acceptably (LOS D or better). Similarly, the results of the evaluation show acceptable operating conditions at the unsignalized study area intersections with the exception of the Walnut Street Oval which revealed an LOS F operation during the weekday evening peak hour.

The most dominating feature of the Downtown's existing roadway network is the presence of numerous one-way streets. Factory Street and Temple Street form a one-way east-west couplet with East Pearl Street and West Pearl Street. Similarly, West Hollis Street forms a one-way east-west couplet with Kinsley Street. There are also numerous north-south one-way couplets such as Pine Street with Palm Street, Ash Street with Vine Street, and Chestnut Street with Walnut Street. Other one-way streets include School Street, Cedar Street, Eldridge Street, Spring Street, Foundry Street, South Street, Cottage Avenue, Court Street, and Park Street.

The Downtown is well served by public transportation with the Nashua Transit Center located on Elm Street in the heart of the Downtown. The Nashua Transit System runs Citybus (a daytime fixed route service); After 7 (an evening fixed route service); and City Lift (a paratransit senior citizen service, with routes throughout the Downtown).

Pedestrian mobility is accommodated primarily with the presence of sidewalks, crosswalks, pedestrian phase actuation at traffic signal controlled intersections, and off-road facilities such as the Nashua Heritage Rail Trail and the Nashua Riverwalk. Sidewalks are provided along nearly all streets within the study area with only minor exceptions. Crosswalks are present at major roadway intersections while midblock crossings are present along East Pearl Street, Main Street, Temple Street, Pine Street, and Palm Street.

The Nashua Heritage Rail Trail, which runs parallel to West Hollis Street, provides access to both pedestrians and bicyclists. While the trail has some roadway crossings, it provides an important alternative to the high traffic volume route of West Hollis Street.

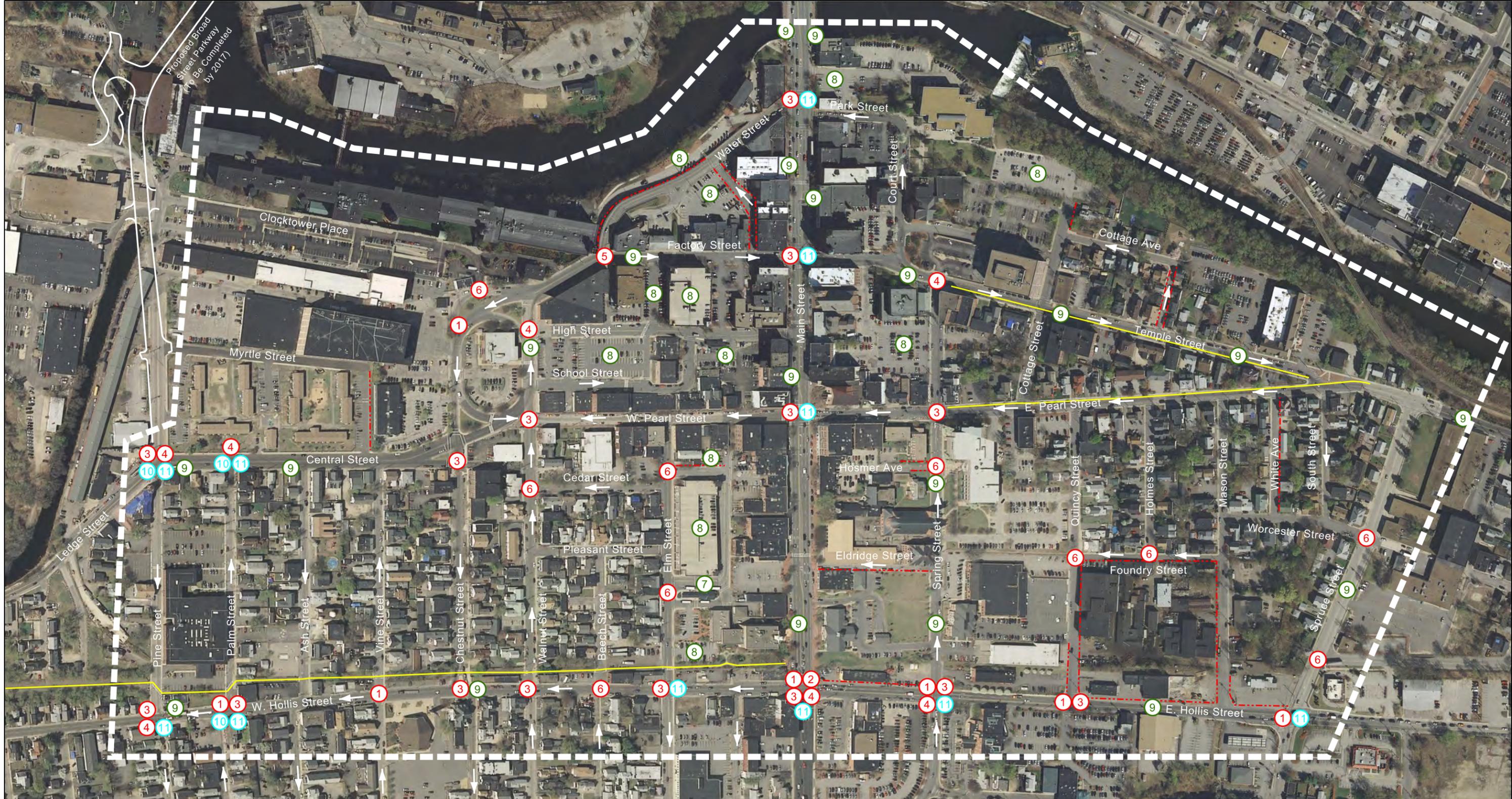
Other than the Nashua Heritage Rail Trail, there are few defined bicycle facilities within the study area. Defined bicycle lanes are provided on Temple Street, between Spring Street and East Pearl Street, and on East Pearl Street, between Spring Street and Temple Street. Bicycle lanes are marked and include both diamond and bicycle shaped identification markings. Bicycle shoulders are also provided along Pine

Street, Palm Street, and will be provided along the soon-to-be completed Broad Street Parkway.

Also, the Nashua Heritage Rail Trail and the defined bicycle lanes along such roadways as Temple Street and East Pearl Street are not well connected. This absence of connectivity tends to discourage recreational bicyclists and young bicyclists from using the existing bike facilities. Additionally, no bicycle racks were observed. However, the City has recently purchased bike racks as part of the City's sidewalk reconstruction project. The City is currently considering where best to locate the bike racks.

A review of crash data over the nine-year period of 2002 through 2010 showed the Main Street/West Hollis Street/East Hollis Street intersection to have the most reported crashes with an average of over 10 crashes per year. This intersection also showed the highest occurrence of pedestrian related crashes with a total of eight pedestrian related crashes over the nine-year period. Also of note, 70 percent of all pedestrian related crashes within the study area occurred at signalized intersections that have pedestrian crossing signals.

A summary of the existing conditions is depicted graphically in **Figure 12**.



LEGEND

- | | | | |
|--|--|--|--|
| | General Study Area Limits | | Directional Traffic Flow |
| Potential Area of Circulation Improvement | | | |
| | LOS D or worse for one or more approach or condition | | Bicycle crashes, noted in areas without bike lanes, facilities, or interconnectivity |
| | More than 5 crashes per year | | Turn restrictions - not related to one-way streets |
| | Pedestrian crashes | | No signed traffic control |
| | No Sidewalk | | Nashua Transit Center |
| | | | Public parking lots/garages |
| | | | Bus stops |
| | | | New geometry/control from Broad Street Parkway |
| | | | Traffic signal control |
| | | | Bike lane / multi-use path |

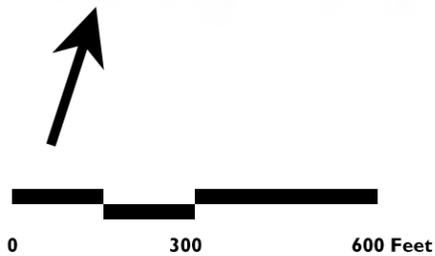


Figure 12
Existing Conditions Summary

3

Alternatives Evaluation

Having evaluated the existing conditions and having worked closely with city staff and city officials (May 2, 2013 Joint meeting of Board of Aldermen Committee on Infrastructure and Planning & Economic Development Committee) on defining study area problems, issues and constraints, and potential solutions, a range of alternatives were developed. Based on this initial input, the developed alternatives focused on opportunities to convert some of the many one-way streets to two-way flow. In addition, alternatives were developed that considered opportunities to reconfigure the Walnut Street Oval in an effort to both improve mobility and to encourage economic development. Once the initial alternatives evaluation was completed, the alternatives were presented to the public at a public workshop for additional input and consideration.

3.1 Conceptual Alternatives

The following sections describe the various alternatives that were brought to the April 30, 2014 public workshop. The alternatives include various configurations for the Walnut Street Oval, pedestrian enhancements for the Water Street area, considerations for converting several Downtown streets from one-way to two-way operation, and consideration of introducing concurrent pedestrian phasing at all Downtown traffic signals.

■ 3.1.1 Walnut Street Oval

Reconfiguring the Walnut Street Oval would not only afford the City an opportunity to enhance access to the Downtown from the west (complimenting the Broad Street Parkway), but it would also provide a tremendous opportunity to both encourage redevelopment and introduce a more pedestrian friendly appeal to the area. A range of reconfiguration alternatives were considered. Alternatives included reconfiguring the Walnut Street Oval into a grid pattern, reconfiguring into a more conventional

signal or roundabout in the southern or northern portion of the oval, and reconfiguring the Oval using two roundabouts.

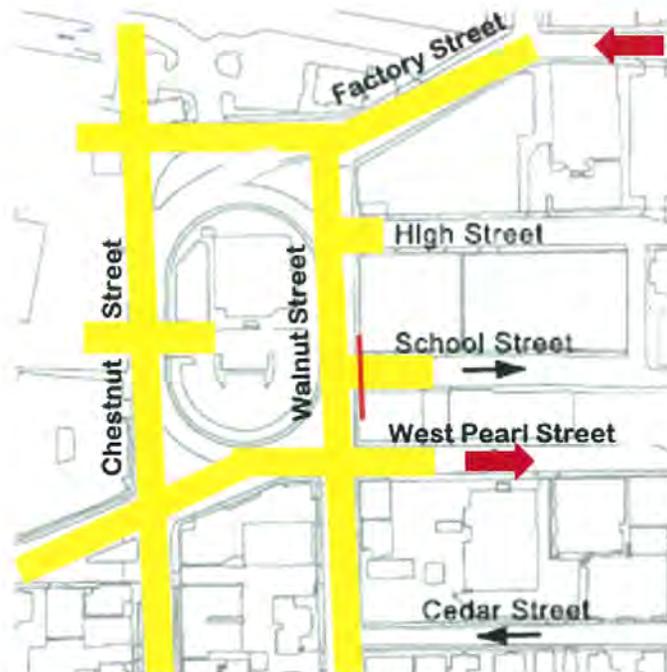


Figure 13: Walnut Street Oval Grid Pattern Circulation Alternative

Reconfiguring the Oval into a grid pattern would closely follow the existing roadway layout as shown in **Figure 13** while maintaining the building located in the center of the Oval. This would increase circulation between the western portions of the study area with Main Street particularly if combined with traffic flow modifications along West Pearl Street and Factory Street. This alternative would provide an important connection from the Broad Street Parkway entering the Mill Yard along Central Street, onto West Pearl Street and onto Main Street. However each intersection within the grid would require traffic control modifications. A combination of stop sign controlled and/or traffic signal controlled intersections may be required depending on the modified traffic volume patterns.

Reconfiguring the Walnut Street Oval into a single consolidated intersection at the southerly end of the existing Oval (near West Pearl Street) could be controlled by either a traffic signal or a roundabout. The traffic signal and roundabout configurations are depicted in **Figure 14**.

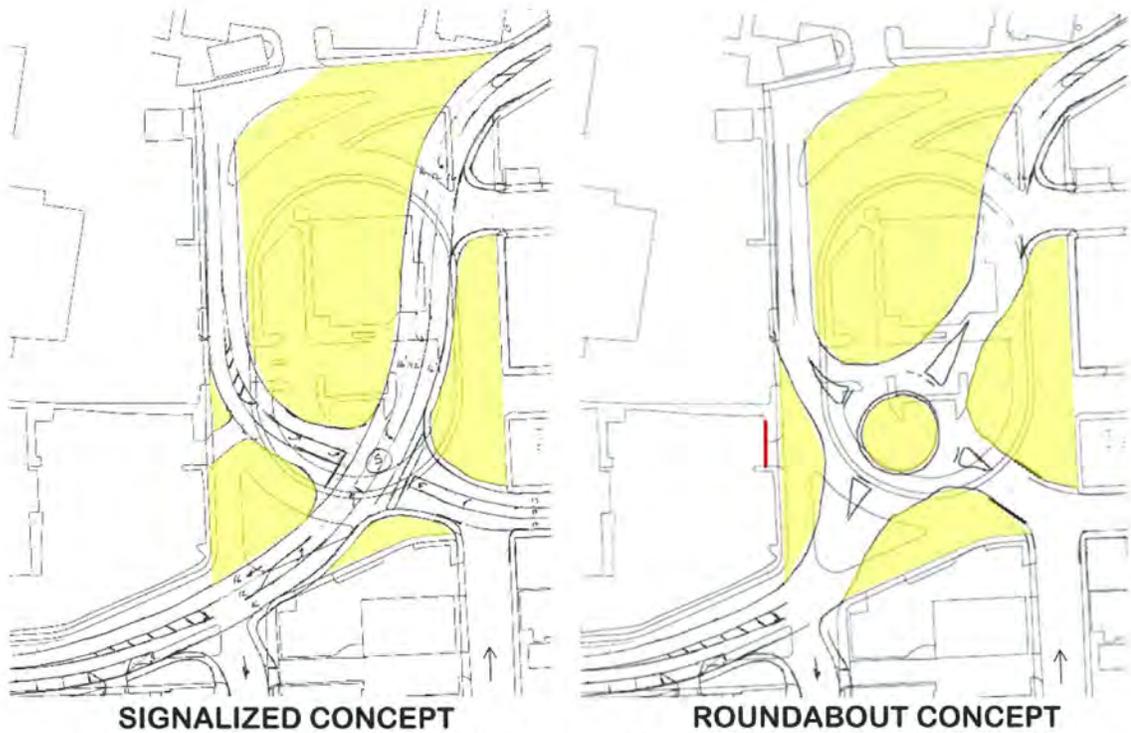


Figure 14: Walnut Street Oval Southern Consolidation Alternatives

Similarly, alternatives were developed and considered that create a single consolidated intersection at the northerly end of the existing Oval. Like the southerly options, this intersection could also be placed under traffic signal control or be constructed as a roundabout. The Northern Alternatives are shown in **Figure 15**. Note that one downside to the single consolidated intersection is that it limits direct access to side streets such as High Street and School Street. The consolidated northern intersection also limits the amount of available developable land.

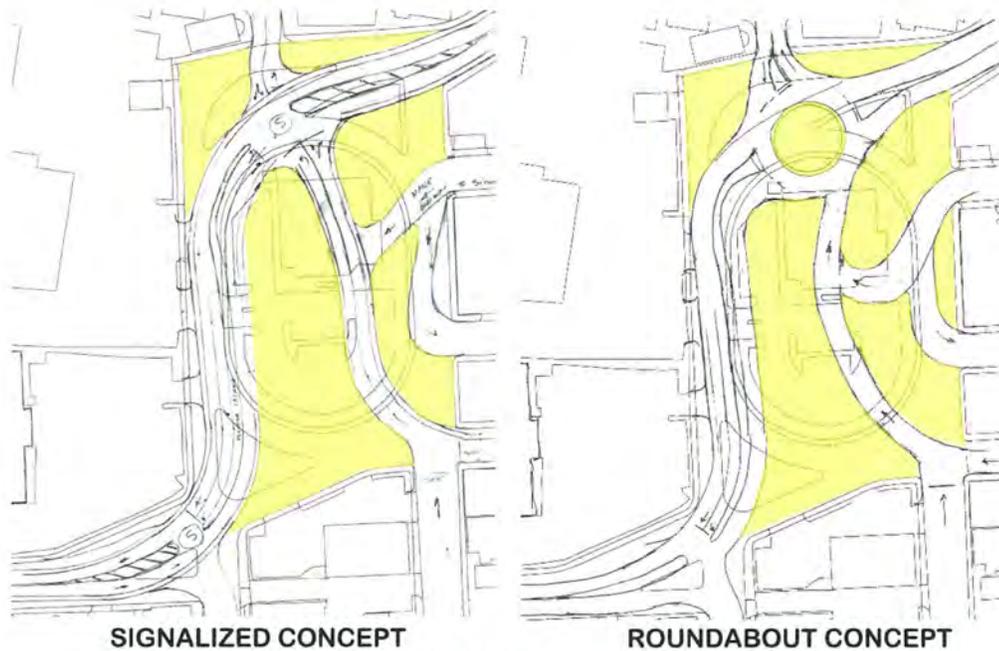


Figure 15: Walnut Street Oval Northern Consolidation Alternatives

Because the single consolidated intersection (both the northern concept and the southern concept) limit redevelopment opportunities, an additional set of configurations were developed. As shown in **Figure 16**, these concepts involve the construction of two roundabouts – one to the south near West Pearl Street and one to the north near High Street. The advantage of these configurations is that they leave substantial developable land that can serve to encourage redevelopment and economic opportunities.

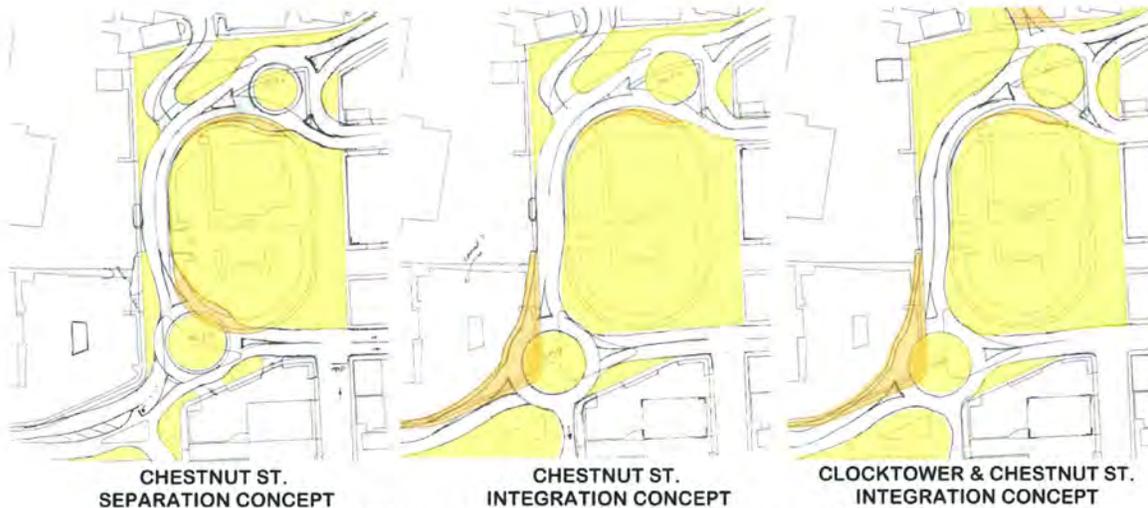


Figure 16: Walnut Street Oval Dual Roundabout Alternatives

The Chestnut Street Separation concept provides two 3-legged roundabouts, one in the north and one in the south. The northern roundabout combines High Street, Factory Street and Walnut Street while the southern roundabout combines Walnut Street Central Street and West Pearl Street. There is a T-intersection of Clocktower

Place with Walnut Street and a second T-intersection of Chestnut Street with Central Street. Of the concepts with two roundabouts, the Chestnut Street Separation concept results in the least amount of property impact with only the central oval property being encroached upon. However the T-intersection of Central Street and Chestnut Street is located in close proximity to the approach to the southern roundabout. Under current traffic flow patterns, Chestnut Street has a high southbound volume. These left-turns would be in conflict with the Central Street traffic. This would be an area of concern for an increase in conflicts, delay and confusion to drivers.

To address this issue, the Chestnut Street Integration Concept was developed. This eliminated the conflict for the Chestnut Street traffic by combining Chestnut Street into the southern roundabout in a 4-leg design. This concept results in property impacts to multiple properties.

Table 4 – Clocktower & Chestnut St Integration Concept Roundabout Analysis Summary

| | North Roundabout | | | | South Roundabout | | | |
|---------|------------------|----------|--------------|----------|------------------|----------|--------------|----------|
| | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | |
| | Delay** | LOS*** | Delay | LOS | Delay | LOS | Delay | LOS |
| NB | 5 | A | 7 | A | N/A | N/A | N/A | N/A |
| WB | 6 | A | 7 | A | 10 | B | 13 | B |
| SB | 5 | A | 6 | A | 8 | A | 12 | B |
| EB | <u>8</u> | <u>A</u> | <u>8</u> | <u>A</u> | <u>10</u> | <u>A</u> | <u>13</u> | <u>B</u> |
| Overall | 7 | A | 7 | A | 9 | A | 12 | B |

** Delay in seconds per vehicle.

*** Level of Service.

A final dual roundabout alternative was considered that consolidates the roadways into two 4-legged roundabouts. This concept would connect Clocktower Place directly into the northern roundabout. Additional properties are impacted with the configuration. **Table 4** shows the summary of the analysis results of the Clocktower & Chestnut St Integration Concept. With this alternative the roundabouts will operate at LOS B or better without having nearby intersections that would creating confusion and increasing overall delay.

Although each option has its advantages and disadvantages, the dual roundabout option would appear to provide the best opportunity to enhance vehicular and pedestrian mobility while encouraging area redevelopment. The dual roundabout alternative, specifically the Clocktower & Chestnut St Consolidation Concept therefore will be the alternative included for screening and evaluation purposes.

■ 3.1.2 Water Street

If one or more private developers, in collaboration with the City, were to advance a pedestrian friendly redevelopment plan for the Walnut Street Oval area, it would be advantageous to provide continuous pedestrian connectivity to the Nashua River at

Water Street. This could be done by converting the western segment of Water Street to a pedestrian corridor/park. This conversion to a pedestrian corridor could be relatively straight forward as the existing western segment of Water Street could be closed to vehicular traffic and converted. **Figure 17** shows a concept of what Water Street could look like as a pedestrian corridor.

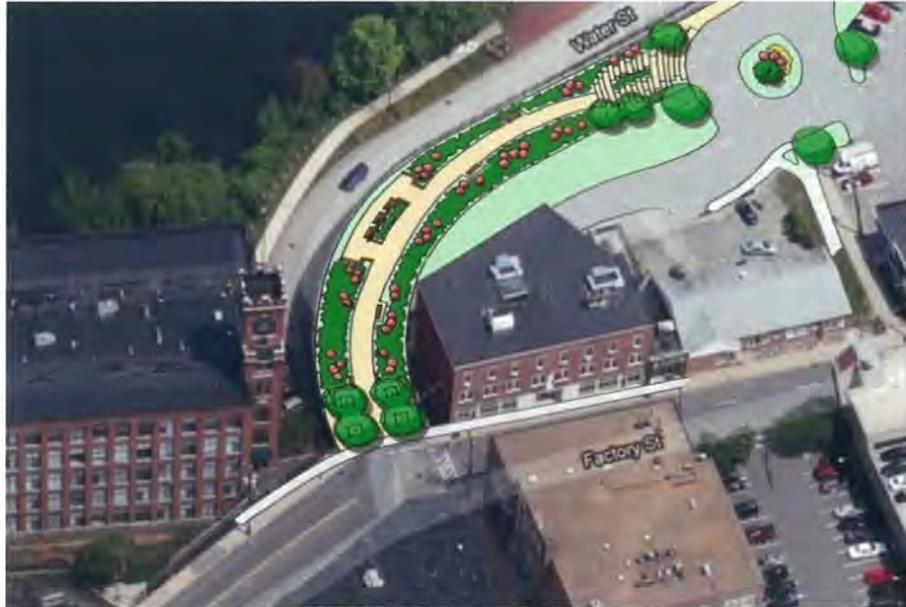


Figure 17: Water Street Pedestrian Corridor

Full vehicular access and egress would be maintained for all businesses on Water Street by way of the traffic signal controlled Main Street intersection. Traffic operations at the Water Street/Park Street/Main Street intersection would be expected to show a modest improvement due to the reduced traffic volume on the Water Street approach. Vehicles that currently use Water Street and are not destined to one of the local businesses on Water Street would divert to other existing roadways, primarily Factory Street.

While this would reduce some vehicular circulation throughout the downtown, it would increase pedestrian and bicycle use. The pedestrian corridor, which would connect to Factory Street, would not only provide access to pedestrians and bicyclists, but it would provide an aesthetically pleasing area with landscaping, benches, and great views of the River.

■ 3.1.3 Factory Street

The portion of Factory Street from Water Street to Main Street and Temple Street from Spring Street to East Pearl Street would be transitioned from existing one-way eastbound (except the section of Temple Street from Main Street to Spring Street that presently services two-way traffic flows) to two-way traffic flow under the Factory and/or Temple Street two-way conversion alternative. This alternative is illustrated in **Figure 18**.

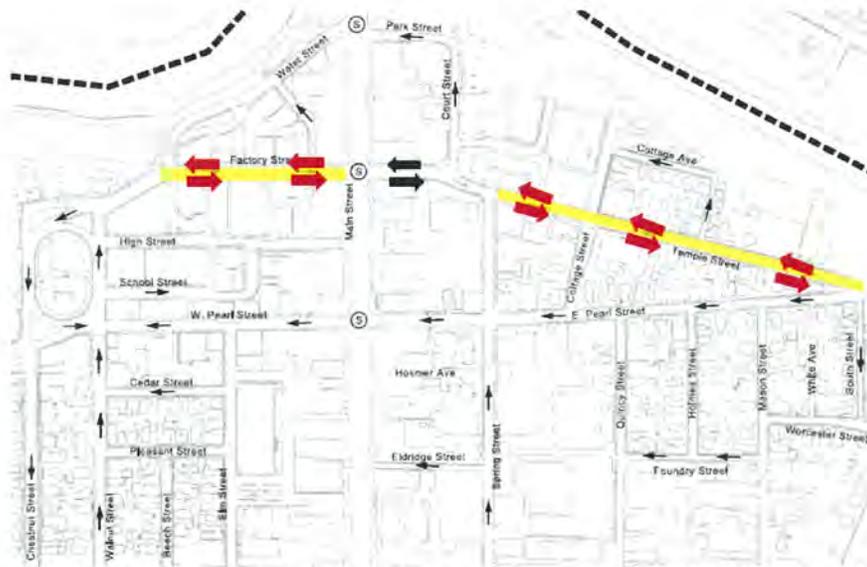


Figure 18: Factory Street and/or Temple Street Two-way Conversion Alternative

Converting Factory Street to two-way operation while maintaining full access/egress at Water Street would be problematic given the poor sight line available for motorists turning from Water Street. The sight line is limited by the building located on the northeast corner of the Factory Street/Water Street intersection. However, the sight line issue would be negated if the Factory Street two-way conversion was combined with the closure of the west segment of Water Street as provide under the Water Street Pedestrian Corridor alternative.

Table 5 - Signalized Intersection Capacity Analysis Summary

| | | Existing 1-Way (Excl. PED) | | | 2-Way Alternative (2-Lane West Approach Split Phase and Excl. PED) | | |
|--------------------------------|----|-------------------------------|---------|--------|--|-------|-----|
| | | v/c* | Delay** | LOS*** | v/c | Delay | LOS |
| Main St. at Water/Park St. | PM | 0.62 | 29 | C | 0.63 | 26 | C |
| Main St. at Factory/Temple St. | PM | 0.46 | 26 | C | 0.71 | 36 | D |

* Volume to Capacity Ratio.

** Delay in seconds per vehicle.

*** Level of Service.

Under this two-way conversion, the intersection of Main Street at Factory Street/Temple Street show an increase in delay and drop a level of service from LOS C to LOS D during the weekday evening peak hour. This deterioration in operations is due to the need to add phases to the existing traffic signal. The rule of thumb is when a phase is added to an existing traffic signal, operations will decrease one level of service. This is what occurs here. There is potential to mitigate some of this increase in delay if the exclusive pedestrian phase was removed and current pedestrian phasing was used at this intersection.

The overall delay at the Main Street/Park Street/ Water Street intersection shows a modest improvement with the conversion to two-way operations. This is primarily due to the shift in vehicle demand from Water Street to Factory Street.

■ 3.1.4 East and West Pearl Street Two-Way Conversion

The portion of West Pearl Street from Walnut Street to Main Street and East Pearl Street from Main Street to Temple Street could be transitioned from existing 1-way westbound to 2-way traffic flow under the East and West Pearl Street 1-way to 2-way alternative. This alternative is illustrated in Figure 19.



Figure 19: East and West Pearl Streets Two-way Conversion Alternative

This conversion to two-way flow along the entire length of the study area would be relatively complex due to the varying existing cross section of the pavement width. The narrowest section is located on East Pearl Street near the Temple Street intersection where the road is only 28 feet wide. The widest section of the roadway is on East Pearl Street between Main Street and Spring Street where the cross section is 38 feet wide. The constraints of the existing pavement width would limit the choice of what new roadway geometry to include; travel lanes in each direction, on-street parking and bike lanes. Traffic control device modifications would be necessary at Temple Street/East Pearl Street Main Street/East Pearl Street/West Pearl Street and West Pearl Street/Walnut Street. Additional minor street intersections would also need some modifications. These traffic control device modifications include the following:

- Removal of one-way street and prohibited turn signage at multiple intersections including Walnut Street/West Pearl Street, Elm Street/West Pearl Street, East Pearl Street/Spring Street, East Pearl Street/Cottage Street, East Pearl Street/Quincy Street, East Pearl Street/Holmes Street, East Pearl Street/Mason Street, East Pearl Street/White Avenue, and East Pearl Street/Temple Street/South Street.
- Modification of traffic signal heads on the existing west bound approach at East Pearl Street’s intersection with Main Street.
- Installation of traffic signal heads for the east bound approach at West Pearl Street’s intersection with Main Street.

- Traffic signal controller cabinet modifications to provide appropriate traffic signal phasing for the new geometry at Main Street/West Pearl Street/East Pearl Street intersection.

Traffic operational analysis shows levels of service to remain the same (LOS C) as the existing condition for the AM and PM peak hours at the signalized intersection of Main Street and East/West Pearl Street. This result is based upon a forecast diversion of approximately 125 vehicles during peak hours. **Table 6** summarizes the traffic operational results compared to the existing condition at the signalized intersection of Main Street and East/West Pearl Street.

Table 6 - Signalized Intersection Capacity Analysis Summary

| | | Existing 1-Way (Excl. PED) | | | 2-Way Alternative (Single Lane E/W Approaches Conc. Side Street and Excl PED) | | |
|--|----|--------------------------------|----------------|---------------|---|--------------|------------|
| | | <u>v/c*</u> | <u>Delay**</u> | <u>LOS***</u> | <u>v/c</u> | <u>Delay</u> | <u>LOS</u> |
| | | Main St. at East/West Pearl St | AM | 0.50 | 21 | C | 0.60 |
| | PM | 0.47 | 22 | C | 0.56 | 32 | C |

* Volume to Capacity Ratio.

** Delay in seconds per vehicle.

*** Level of Service.

It should be noted that the analysis presented in Table 6 includes concurrent side street phasing and exclusive pedestrian phasing for the traffic signal. This would need to be reviewed more closely if this alternative is progressed to verify that the phasing will work from a geometric standpoint and that split phasing can be utilized.

Additionally, the unsignalized side streets were not reviewed in detail for the consideration of this alternative. These intersections will all experience an increase in delay as a result of the added conflict movements.

A variation on this alternative could also be considered where either East Pearl Street only or West Pearl Street only is converted to two way operations.

3.1.5 Factory/Temple Street and East/West Pearl Street

Under the reverse 1-way Factory/Temple and East/West Pearl Street alternative, the existing eastbound traffic movements along Factory Street and Temple Street and the existing westbound traffic movements along East and West Pearl Street would be reversed. Noted is that the existing Temple Street 2-way traffic flows from Main Street to Spring Street would also be changed to 1-way westbound. This alternative is illustrated in **Figure 20**.

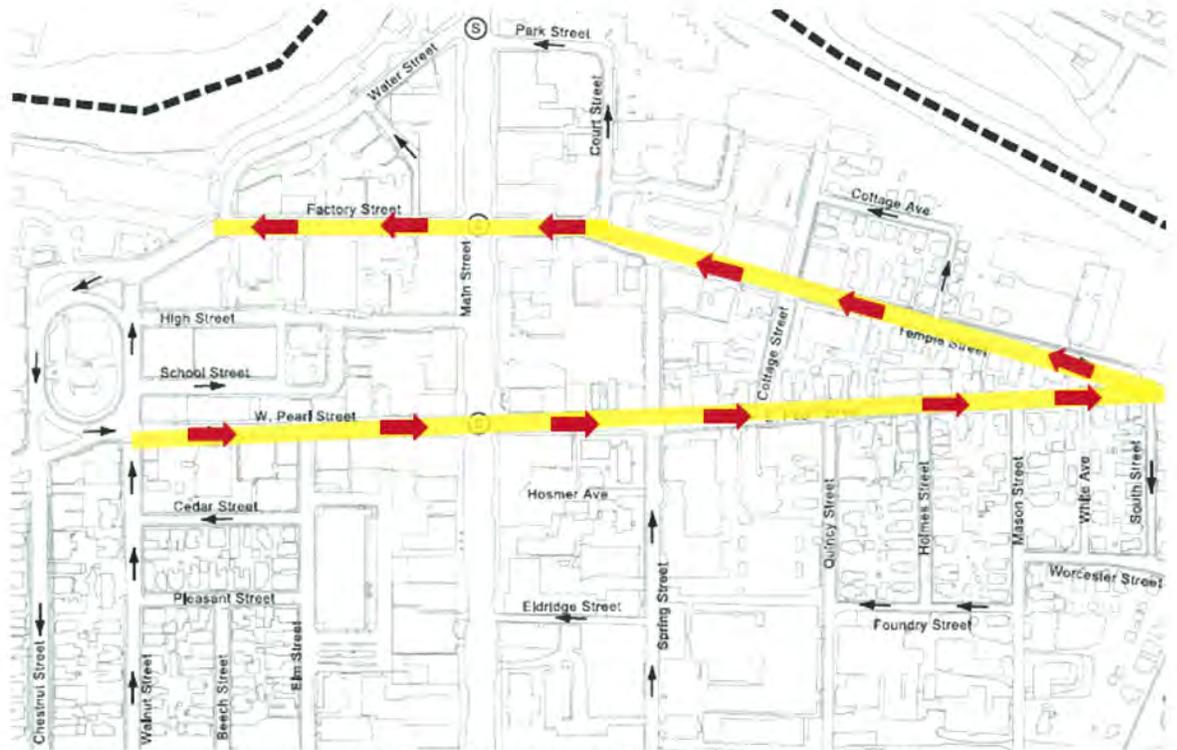


Figure 20: Factory St/Temple St and East and West Pearl Street Reverse One-way Alternative

This conversion to reverse flow along the entire length of the Factory/Temple Streets and West/East Pearl Streets would be relatively straight forward due to the existing cross section. No modifications to the roadway width would be required. Only the roadway striping would need to be modified to reflect the change in flow. However, the traffic control at all of the intersections would need to be modified to reverse conditions. Both traffic signals on Main Street would need to be modified including signal head placement, phasing and timing. The many unsignalized intersections would also need modification including Water Street, Walnut Street, Elm Street, Spring Street, Cottage Street, Quincy Street Holmes Street Mason Street, White Avenue, and South Street. These changes would be mostly confined to modifying signage and striping.

Table 7 - Signalized Intersection Capacity Analysis Summary

| | | Existing 1-Way | | | Reverse 1-Way Alternative | | |
|---------------------------------|----|----------------|---------|--------|---------------------------|-------|-----|
| | | v/c* | Delay** | LOS*** | v/c | Delay | LOS |
| Main St. at Factory/Temple St. | AM | 0.38 | 16 | B | 0.55 | 16 | B |
| | PM | 0.46 | 26 | C | 0.54 | 19 | B |
| Main St. at East/West Pearl St. | AM | 0.50 | 21 | C | 0.37 | 16 | B |
| | PM | 0.47 | 22 | C | 0.42 | 22 | C |

* Volume to Capacity Ratio.

** Delay in seconds per vehicle.

*** Level of Service.

■ 3.1.6 Spring Street

Under the Spring Street 1-way to 2-way conversion alternative, the portion of Spring Street between East Hollis Street and East Pearl Street would be transitioned from existing 1-way northbound to 2-way traffic flow. This alternative is illustrated in Figure 21.



Figure 21: Spring Street Two-way Conversion Alternative

This conversion to two-way flow would be relatively straightforward as the roadway currently has two travel lanes in addition to on-street parking on the east side of the street. However, traffic control device modifications would be necessary at Spring Street/East Pearl Street and Spring Street/East Hollis Street with this alternative. These traffic control device modifications include the following:

- Removal of one-way street and prohibited turn signage at Spring Street’s intersection with East Pearl Street.
- Installation of “Do Not Enter” signs to the Medical Center Drive approach to inform southbound Spring Street motorists that they are required to turn left or right at the traffic signal.
- Installation of traffic signal heads on the existing southwest corner mast arm pole at Spring Street’s intersection with East Hollis Street.

- Traffic signal controller cabinet modifications to provide southbound Spring Street traffic signal phasing (proposed to be split from Medical Center Drive’s green indications given the moderately high volume of conflicting Spring Street left-turn to Medical Center Drive through and right-turn movements).

Traffic operational analysis shows levels of service to remain the same (LOS B) as the No Build condition for the AM and PM peak hours at the All-Way STOP intersection of Spring Street and East Pearl Street. This result is based upon a forecast diversion ranging from 50-75 vehicles to southbound Spring Street during peak hours. **Table 8** summarizes the traffic operational results compared to the existing condition at the signalized intersection of Spring Street and East Hollis Street.

Table 8 - Signalized Intersection Capacity Analysis Summary

| | | No Action 1-Way Spring St. (Exclusive PEDs) | | | 2-Way Spring St. Alternative (Exclusive PEDs) | | |
|--|----|---|----------------|---------------|--|--------------|------------|
| | | <u>v/c*</u> | <u>Delay**</u> | <u>LOS***</u> | <u>v/c</u> | <u>Delay</u> | <u>LOS</u> |
| | | East Hollis St. at Spring St. | AM | 0.42 | 31 | C | 0.53 |
| | PM | 0.59 | 44 | D | 0.68 | 60 | E |
| | | | | | 2-Way Spring St. Alternative (Concurrent PEDs) | | |
| | | | | | <u>v/c</u> | <u>Delay</u> | <u>LOS</u> |
| | | | | | 0.49 | 31 | C |
| | | | | | 0.63 | 37 | D |

* Volume to Capacity Ratio.

** Delay in seconds per vehicle.

*** Level of Service.

The results of the signalized operational analysis shows a drop in LOS (from D to E) during the critical PM peak hour with the Spring Street southbound approach added to the existing signalized intersection and retention of the exclusive pedestrian phasing. In addition to the drop in LOS, eastbound vehicle queues along East Hollis Street are forecast to reach Main Street. The forecast drop in LOS and increased vehicle queuing are undesirable changes to operating conditions that may require mitigation.

One potential modification to improve LOS and reduce vehicle queuing at the signalized intersection is a change from exclusive pedestrian signal phasing (where all traffic stops for any pedestrian pushbutton actuation) to concurrent pedestrian signal phasing (where the WALK signal is displayed and pedestrians cross with moving vehicle traffic adjacent to the crosswalk, noting turn vehicles are instructed by way of regulatory signage as well as state statutes to YIELD to any pedestrian in a crosswalk). Discussion on the advantages and disadvantages of exclusive versus concurrent pedestrian phasing can be found in earlier sections of this report. As shown in **Table 8**, operational level of service is forecast to remain the same as the

existing condition with use of concurrent pedestrian crossings, even with the added signal phase for the Spring Street approach that reduces existing intersection capacity by four to seven percent during the peak hours.

■ **3.1.7 Park Street and Court Street**

The east/west portion of Park Street from Main Street to Court Street and the north/south portion of Court Street from Temple Street to Park Street would be transitioned from existing one-way westbound and northbound, respectively to two-way traffic flow under the Park Street and Court Street 2-way conversion alternative. This alternative is illustrated in **Figure 22**.

Note that the proximity of Pearson Avenue to Park Street, particularly in relation to the two streets connections to Main Street, lead to Pearson Avenue and its connecting street to be included into the discussion of the Park Street and Court Street alternative.



Figure 22: Park Street and Court Street Two-way Conversion Alternative

Converting Court Street and Park Street to two-way operation would improve mobility in the area and also enhance land development opportunities. Converting Court Street to two-way operation would at a minimum involve modest modifications, to the Court Street/Temple Street intersection such as removing the raised channelized island on Temple Street. However, a better option would be to initiate discussions with the owner of the 30 Temple Street property regarding the potential redevelopment opportunities for the adjacent parcels, which perhaps could include the reconfiguration of the intersection in such a way as to connect Spring Street directly into the intersection. Also, given the offset configuration of the Main Street/Park Street/Water Street intersection, it may be best to maintain the one-way westbound restriction for the short (approximately 100') western most section of Park

Street. Connection to Pearson Street would be maintained through the existing parking lot. Prior to the City advancing the conversion to two-way flow along Court Street and Park Street it would be advantageous to work with the owner of the 30 Temple Street property to consider whether a reconfiguration of the Court Street/Temple Street intersection could be coordinated with any development proposal.

■ 3.1.8 Pedestrian Signal Phasing

Under the existing condition, all study area signalized intersections are timed to provide exclusive pedestrian phased signal timing. As illustrated in **Figure 23**, an exclusive pedestrian phase is when vehicle and bicycle traffic is stopped on all approaches to allow pedestrians to cross any leg of a signalized intersection.

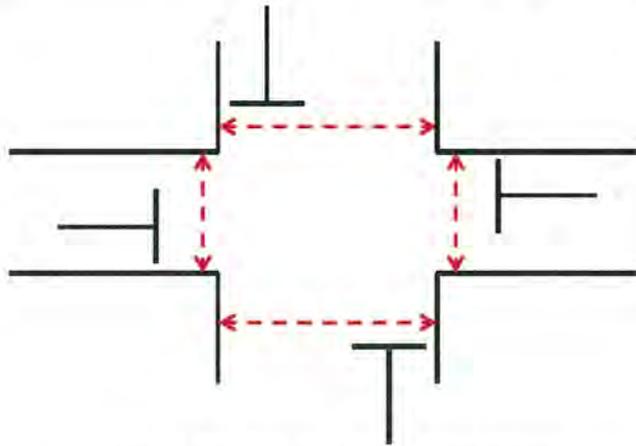


Figure 23: Exclusive Pedestrian Crossing

Generally, exclusive pedestrian phasing is only being used in the New England region, whereas most of the United States services pedestrian movements by way of concurrent pedestrian signal phasing³.

Figure 24 shows concurrent pedestrian phasing that allows for pedestrians to cross in the same direction at the same time as parallel motor vehicle and bicycle traffic receives a green indication. Turning vehicles are instructed by way of on-street regulatory signage backed by New Hampshire state law to YIELD to any pedestrian in a crosswalk.

³ Technical presentation to the New England Section of the Institute of Transportation Engineers (ITE), 2010.

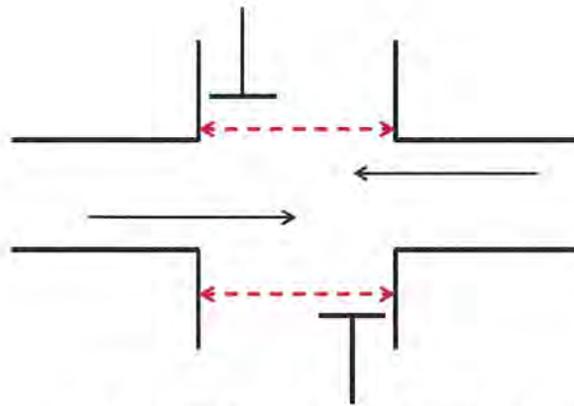


Figure 24: Concurrent Pedestrian Crossing

A comparison of exclusive pedestrian phasing to concurrent pedestrian phasing is summarized as follows:

| Exclusive Pedestrian Phasing | vs | Concurrent Pedestrian Phasing |
|---|----|--|
| <ul style="list-style-type: none"> • Results in longer delay for motor vehicles, bicycles, and pedestrians. • Provides a feeling of security for pedestrians when traffic is stopped • Used primarily in New England states • Pedestrians often push button and cross against the pedestrian signal concurrent with parallel traffic if no conflicts exist. • May require NO RIGHT TURN ON RED sign. | | <ul style="list-style-type: none"> • Results in less delay for motor vehicles, bicycles, and pedestrians. • Results in conflicts between turning vehicles and pedestrians. • More widely used and recognized. • Incorporation of early release (leading pedestrian) interval lessens conflicts with turning vehicles. • Pedestrian must exercise more caution and judgment. |

As stated in the fourth bullet of the concurrent pedestrian phasing discussion, traffic signal phasing can be set for an early release so that pedestrians are well into the crosswalk before vehicle traffic is given a green indication and permitted to turn. This methodology is shown in **Figure 25**. Recent New England projects⁴ have shown success in transitioning to a concurrent pedestrian crossing using the early release (leading pedestrian) method for initial implementation with eventual phase out of the leading interval as motorists become accustomed to moving with (and turning vehicles yielding to) pedestrians.

The primary benefit to implementing concurrent pedestrian phasing is reduced delay and improved vehicular, pedestrian, and bicycle mobility. Often this results in an improvement to traffic and pedestrian operations by one level of service. The downside to converting from exclusive to concurrent pedestrian phasing is the potential for increased conflicts with the potential for as much as a 15 percent (high traffic volume compared to high pedestrian activity) to 40 percent (high traffic volume compared to low pedestrian activity) increase in vehicle, bicycle, and pedestrian related crashes⁵.

⁴ River Street at Massachusetts Avenue, Binney Street at Second Street, Binney Street at Third Street, Cambridge, Massachusetts, 2009-2103.

⁵ Transportation Research Record No. 847 and 1141, Washington, D.C.

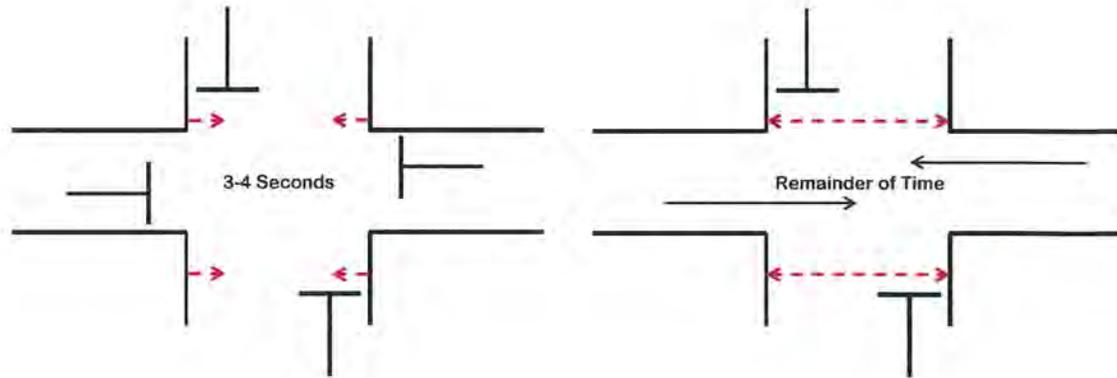


Figure 25: Concurrent Pedestrian Crossing with Early Release

3.2 Public Outreach Process

The study included an open and consensus-driven public participation process. In addition to meetings with City staff and a public presentation to a joint meeting of the Board of Aldermen Committee on Infrastructure and Planning & Economic Development Committee, an important public workshop was held on April 30, 2014.

The workshop, which was attended by residents, property and business owners, as well as the Mayor, members of the Board of Aldermen and key City staff, provided attendees an opportunity to share their ideas on a wide range of potential solutions directly with the study team in an informal workshop-type format.

The following is a small sampling of some of the comments provided by attendees of the workshop. This is not a complete list of the comments and suggestions.

- Do not remove on-street parking.
- Maintain raised crosswalks.
- Bike racks are needed throughout the Downtown.
- Bike lanes need to be connected and routes need to be developed for both east-west as well as north-south travel.
- Consider “walk with traffic” pedestrian traffic signals.
- Converting Water Street to a pedestrian connection with green space is a good idea.
- Reverse the one-way flow on East Pearl Street and Temple Street to improve circulation.
- The Post Office on Spring Street is the cause of most of the existing problems on the street – customers cause backups during the morning peak hours.

- Maintain one-way operation East Hollis Street and East Pearl Street, but convert Spring Street to two-way.
- Consider any circulation modifications within the context of future land development projects.

These and many other comments and suggestions were considered in the development of the Study Findings.

4

Study Findings

To improve vehicular mobility, strengthen transit, pedestrian, and bicycle connections, and to enhance accessibility for residents and businesses, the City should consider converting some of the Downtown's one-way streets to two-way flow. However, changing the circulation patterns of several streets at the same time can be disruptive and therefore it would be best to implement these types of actions over time. Some of the actions could be implemented now, some in the future, and some would be best implemented as part of future roadway reconfiguration projects.

Walnut Street Oval

Reconfiguring the Walnut Street Oval would not only afford the City an opportunity to enhance access to the Downtown from the west (complimenting the Broad Street Parkway), but it would also provide a tremendous opportunity to both encourage redevelopment and introduce a more pedestrian friendly appeal to the area.

A range of reconfiguration alternatives were considered. Although each option has its advantages and disadvantages, the dual roundabout option would appear to provide the best opportunity to enhance vehicular and pedestrian mobility while encouraging area redevelopment.

Advancing the roadway reconfiguration, solely as a City improvement project, would be costly and as result could take many years. However, if there was an opportunity for this type of roadway reconstruction project to be constructed by the private sector as part of a larger redevelopment plan where the City and one or more property developers worked together, this type of project could advance much quicker. To advance this concept, the City should share the reconfiguration concept with interested area property developers and initiate discussions with them in an effort to spark interest in the area's redevelopment opportunities.

Water Street

If one or more private developers, in collaboration with the City, were to advance a pedestrian friendly redevelopment plan for the Walnut Street Oval area, it would be advantageous to provide continuous pedestrian connectivity to the Nashua River at Water Street. This could be done by converting the western segment of Water Street to a pedestrian corridor. Full vehicular access and egress would be maintained for all businesses on Water Street by way of the traffic signal controlled Main Street intersection. The pedestrian corridor, which would connect to Factory Street, would not only provide access to pedestrians and bicyclists, but it would provide an aesthetically pleasing area with landscaping, benches, and great views of the River.

Factory Street

In addition to the aesthetic and community enhancements and the improved pedestrian connectivity to the Nashua River, converting the western segment of Water Street to a pedestrian corridor, would remove vehicular traffic from entering Factory Street from Water Street and thereby negate the poor sight line issue. With the poor sight line issue addressed, Factory Street can be converted to two-way flow. Factory Street's existing 36-foot curb-to-curb width would accommodate a single travel lane in each direction while maintaining the existing on-street parking on the north side of the street. This change would require modifications to the Main Street/Factory Street/Temple Street traffic signal. The City should consider converting Factory Street to two-way, but only as part of the closure of the western segment of Water Street.

West Pearl Street

Converting West Pearl Street to two-way flow would provide improved connectivity to and from Main Street. The existing 36-foot curb-to-curb width along the segment of West Pearl Street from Main Street to Elm Street would accommodate a single travel lane per direction while allowing the City to maintain the existing on-street parking on the north side of the street. However, because the segment of West Pearl Street from Elm Street to Walnut Street is only 34 feet wide with on-street parking on both sides of the street, the conversion to two-way flow would most likely result in the loss of the existing on-street parking spaces on the south side of the street. In an effort to minimize any loss of on-street parking, the City could consider reducing the approximately 8' wide sidewalk on the south side of the west end of West Hollis Street by approximately 2 feet. This additional roadway width could accommodate two 10' travel lanes in addition to maintaining on-street parking on both sides of the roadway.

This conversion to two-way operation would require modifications to the Main Street/ East Pearl Street/West Pearl Street traffic signal. Converting West Pearl Street to two-way flow would best be accomplished as part of any reconfiguration and redevelopment plan for the Walnut Street Oval.

Temple Street and East Pearl Streets

Converting either Temple Street and/or East Pearl Street from their existing one-way operation to two-way flow would improve vehicular mobility. However, the downside of the conversion would be the loss of on-street parking and/or an existing designated bike lane. Temple Street's existing 34-foot curb-to-curb width accommodates a single travel lane, a bicycle lane, and on-street parking on both sides of the street. To convert the roadway to two-way flow with a travel lane and a bike lane in each direction would necessitate the loss of parking on both sides of the street. Similarly, providing two-way flow on East Hollis Street, which has sections as narrow as 28 feet, would necessitate the loss of parking and the bike lane. Additionally, based on public input, there does not appear to be much support for converting either Temple Street or East Pearl Street to two-way flow. For these reasons, it may be best for the City to leave Temple Street and East Pearl as currently configured for the time being.

Spring Street

Converting Spring Street from East Hollis Street to East Pearl Street from its existing one-way northbound operation to two-way flow would be relatively straightforward as the roadway currently has two travel lanes in addition to on-street parking on the east side of the street. However, the change would require modifications to the East

Hollis Street/Spring Street traffic signal. Also, patrons of the Post Office would no longer be able to queue along one of the travel lanes when the parking lot gets congested (as they do today) as the northbound traffic would be limited to one lane. Nevertheless, if the City is committed to begin to convert some of its one-way streets to two-way, Spring Street may be a good location to start.

Court Street and Park Street

Converting Court Street and Park Street to two-way operation would improve mobility in the area and also enhance land development opportunities. Converting Court Street to two-way operation would at a minimum involve modest modifications, to the Court Street/Temple Street intersection such as removing the raised channelized island on Temple Street. However, a better option would be to initiate discussions with the owner of the 30 Temple Street property regarding the potential redevelopment opportunities for the adjacent parcels, which perhaps could include the reconfiguration of the intersection in such a way as to connect Spring Street directly into the intersection. Also, given the offset configuration of the Main Street/Park Street/Water Street intersection, it may be best to maintain the one-way westbound restriction for the short (approximately 100') western most section of Park Street. Connection to Pearson Street would be maintained through the existing parking lot. Prior to the City advancing the conversion to two-way flow along Court Street and Park Street it would be advantageous to work with the owner of the 30 Temple Street property to consider whether a reconfiguration of the Court Street/Temple Street intersection could be coordinated with any development proposal.

Share the Road Philosophy

Providing additional designated bicycle lanes within the existing cross-section of the Downtown streets would be difficult without sacrificing on-street parking. Although there is strong advocacy for improved bicycle connectivity, there does not appear to be strong support for providing designated bicycle lanes along Downtown streets – particularly if doing so would impact on-street parking. Nevertheless, there are actions that the City can take to encourage bicycle use and enhance the experience of bicyclists. The City should continue to advance off-road opportunities for connectivity such as the Nashua Heritage Rail Trail and the Nashua Riverwalk. Bike racks could be installed throughout the Downtown. The City recently purchased bike racks as part of the sidewalk reconstruction project and is currently working to identify locations where the racks will be placed.

The City could also install more “Share the Roadway” signs, which serve to remind motorists of the multi-modal character of the Downtown. Moreover, in addition to these specific actions, the City should, within the core of the Downtown, establish a “Share the Road” philosophy. The concept of share the road stems from the idea that all roadways within the core area of the Downtown should have a look and feel of an area where motorists will expect to see and will be welcoming to pedestrians and bicyclists. This is best accomplished by minimizing the pavement width of travel lanes while maximizing the width of sidewalks and providing numerous areas where people are encouraged to gather.

Concurrent Pedestrian Signal Phasing

Together with the share the road philosophy, the City should consider providing concurrent pedestrian signal phasing at all study area intersection. Concurrent pedestrian signal phasing allows pedestrians to cross an intersection at the same time as in the same direction and at the same time (concurrently) with motor vehicles and

bicyclists traveling in the same direction. This type of signal phasing, as opposed to exclusive pedestrian phasing that only allows pedestrians to cross when vehicles on all approaches to the intersection are stopped, would provide enhance both pedestrian and vehicular mobility.

Next Steps

This planning study identified a number of issues and potential solutions on a conceptual basis. Some of the actions will require more detailed evaluation and design. However, there are steps that the City can begin to take now to improve traffic circulation with the goal of enhancing the experience of those who live, work, and visit the Downtown. These next steps are described as follows:

1. The City should establish and adopt a consistent and continually reinforcing Vision for the Downtown. This stated Vision will serve to guide decision makers with the development and implementation of consistent actions and programs over the coming years.
2. An important outcome of the Vision should be to convert at least some of the many one-way Downtown streets to two-way operation. However, changing the street circulation patterns in downtown areas can be disruptive and therefore, it would be best to implement these types of changes gradually overtime. As an initial project, the City should consider converting Spring Street from Hollis Street to East Pearl Street from its existing one-way northbound operation to two-way flow. Doing so will necessitate modifications to the East Hollis Street/Spring Street traffic signal at an estimated cost of approximately \$40,000.
3. The City should initiate discussions with the development community in an effort to encourage the redevelopment of the Walnut Street Oval area. The two-roundabout alternative would serve to improve vehicular, pedestrian, and bicycle mobility while also maximizing developable land. The economic development potential of the area is tremendous. However, the investment costs are considerable. The roadway reconstruction cost alone (not including land costs) are estimated at over \$2 million. A creative public/private partnership could improve traffic circulation, enhance pedestrian and bicycle mobility, and stimulate economic development within this important part of the Downtown.
4. Upon the completion and opening of the Broad Street Parkway, the City (perhaps in partnership with the NRPC) should conduct updated traffic volume counts throughout the Downtown. Previous studies have estimated diversionary effects of the Parkway. However, prior to committing to any substantial modifications to the Downtown street system, the City should obtain actual post-Parkway traffic volumes. This is particularly important in assessing the increase in traffic demand destined to Main Street from the Parkway.
5. Following the opening of the Broad Street Parkway and upon review of the post-Parkway traffic volume counts, the City should consider converting West Pearl Street to two-way operation. However, to maintain parking on

both sides of the roadway, the City would need to reduce the approximately 8' wide sidewalk on the south side of the west end of West Hollis Street by approximately 2 feet. This additional roadway width could accommodate two 10' travel lanes in addition to maintaining on-street parking on both sides of the roadway. This modification to the sidewalk is estimated to cost approximately \$20,000.

6. The City should begin to consider the potential benefits of converting the western segment of Water Street to a pedestrian corridor. Although this may be a longer-term project, providing this pedestrian connection to the Nashua River, particularly if the Walnut Street Oval area gets redeveloped, will continue to reinforce the notion that Downtown Nashua is a pedestrian friendly environment.
7. If the City converts the western segment of Water Street to a pedestrian corridor, the City should then convert Factory Street to two-way flow. Factory Street's existing 36-foot curb-to-curb width would accommodate a single travel lane in each direction while maintaining the existing on-street parking on the north side of the street. This change would require modifications to the Main Street/Factory Street/Temple Street traffic signal.
8. The City should consider converting Court Street and Park Street (with the exception of the short section closest to Main Street) to two-way flow. However, prior to advancing this action, the City should involve the property owner of the 30 Temple Street office building. Converting Court Street to two-way flow would, at a minimum involve modest modifications, to the Court Street/Temple Street intersection such as removing the raised channelized island on Temple Street. However, a better option would be to initiate discussions with the owner of the 30 Temple Street property regarding the potential redevelopment opportunities for the adjacent parcels, which perhaps could include the reconfiguration of the intersection in such a way as to connect Spring Street directly into the intersection.

Appendix D

Performing Arts Center Feasibility Study

webb

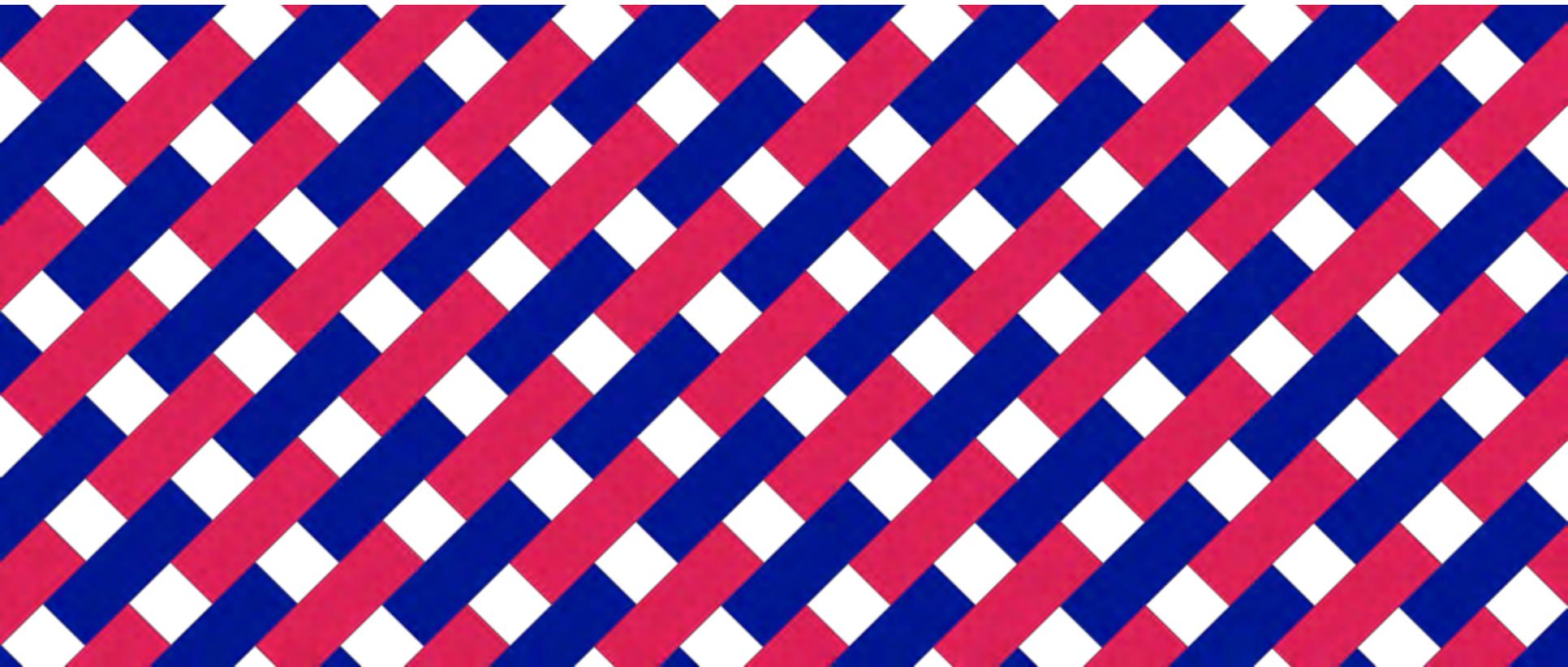
management
services
incorporated

building creativity

May 2, 2017

Performing Arts Facilities for Nashua

Developed for The City of Nashua



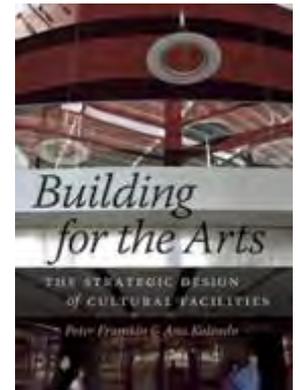
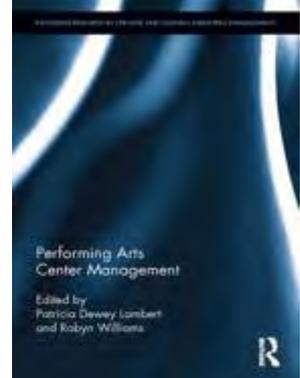
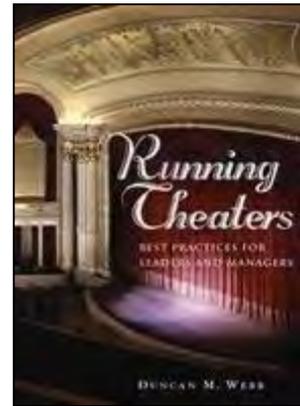
Agenda

- * Needs assessment summary
- * Physical and business plans for Court St.
- * Physical and business plans for a new facility



Webb Management Services

- * Webb Management Services, Inc. is a management consulting practice for the development and operation of performing arts facilities. We work for governments, schools, developers, and arts organizations on facility feasibility, business planning, and strategic planning. Our practice was founded in 1997, and we just started our 390th assignment.
- * In 2001, we completed the original feasibility study for this project. Other regional experience includes projects in Gilford, Keene, Lowell (MA), Framingham (MA), Lynn (MA), Worcester (MA), and Fitchburg (MA).



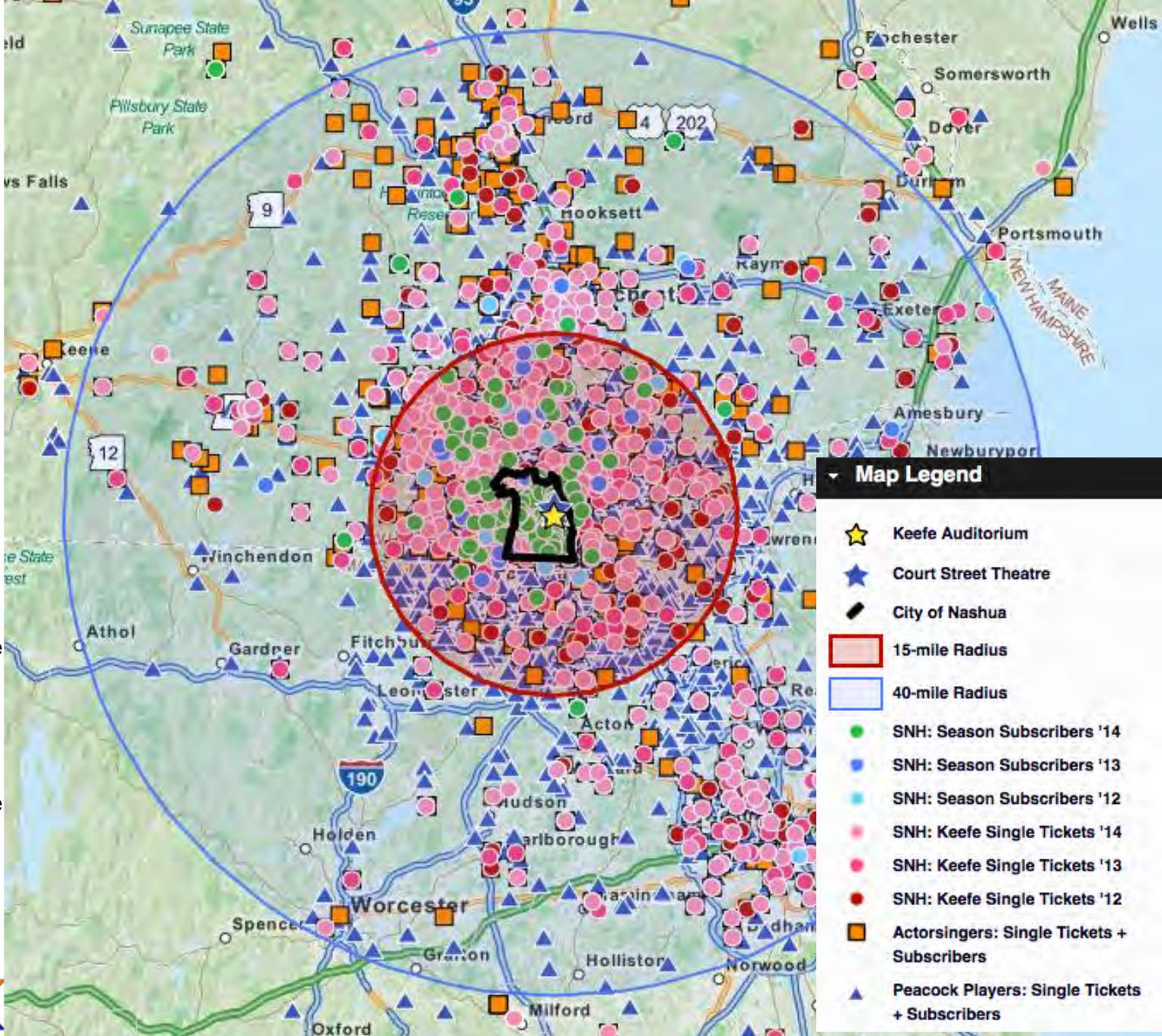
Study brief + background

- * The idea of building a performing arts center in Downtown Nashua has been under consideration for at least 15 years.
- * Significant cultural development has been accomplished since the genesis of the idea.
- * While some community leaders and local residents think that a performing arts center would be another important catalyst for downtown development, there is much work to be done around the idea.
- * Webb Management Services was hired to establish whether or not building a theater in downtown Nashua is feasible. In 2016, we assessed the market for the arts in Nashua, demand for performance space, the current supply of performance facilities in the region, and the goals of the City for the future.
- * Having reached positive conclusions on the need for facilities, we went on to develop physical and business plans over the past six months.



Market analysis: segments one, two + three

- * Market segment 1 is defined as the City of Nashua.
- * Market segment 2 is defined as the 15-mile radius surrounding the Keefe Auditorium.
- * Market segment 3 is defined as the 40-mile radius surrounding the Keefe Auditorium.



Market conclusions

| Market Conclusions: By Segment | | | | |
|--------------------------------|-----------|--------|---|---|
| | Size* | Growth | Characteristics | Conclusions |
| Nashua | 87,477 | ↑ | Slowly growing population; Diverse in age with a large number of families; Varying household incomes & levels of educational attainment; Racially & ethnically diverse with a large Indian American community | Opportunities for increased family, culturally specific & hands-on programming; Need for price-sensitive programs and facilities |
| 15-mile Radius | 668,901 | ↑ | Growing population; Diverse in age with a large number of families & Millennials; Affluent; Varying levels of educational attainment; Racially & ethnically diverse | Opportunities for increased family, culturally specific & hands-on programming; Propensity for supporting traditional arts |
| 40-mile Radius | 4,693,531 | ↑ | Growing population; Diverse in age with a large number of families; Affluent; Well-educated; Racially & ethnically diverse | Opportunities for increased family, culturally specific programming; Propensity for supporting traditional arts; Possible demand for jazz events and programs |
| Tourism | 38.4M | ↑ | Outdoor recreation oriented with arts & entertainment participation | Recreation-based programs & events; Partnership development with Visit NH |

*2026 Estimate

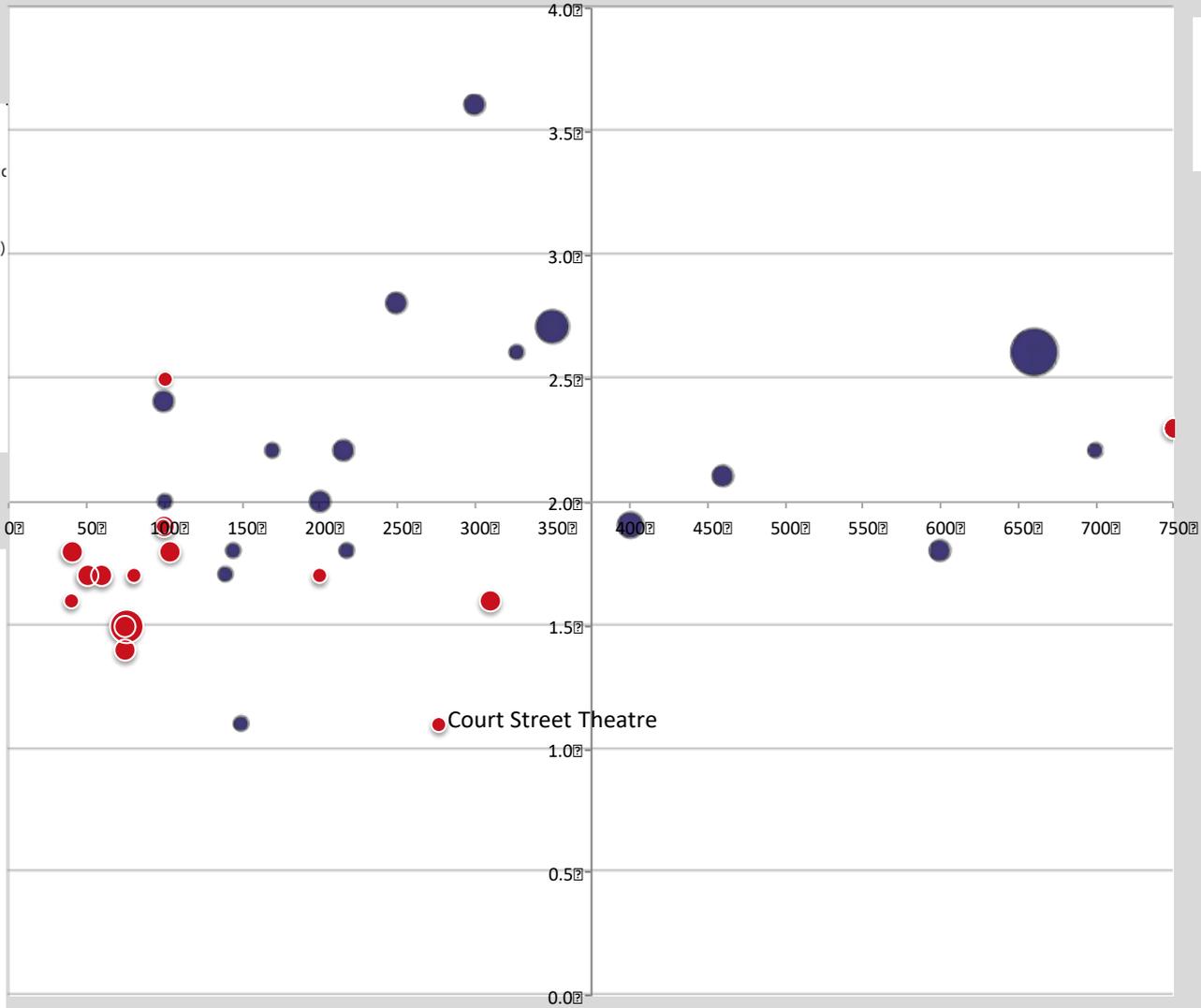


Facility Rating vs. Capacity (0 to 750 seats)

Elm Street Middle School: Keefe Auditorium
 Nashua High School North
 Nashua High School South
 Nashua Community College: Judd Gregg Hall Auc
 Court Street Theatre: Janice B. Streeter Theatre
 The Peddler's Daughter
 Stella Blu
 Chunky's Cinema Pub (Headliners Comedy Club)
 Unitarian Universalist Church: Auditorium*
 Hunt Building
 Riverwalk Café + Music Bar
 Public Library: NPL Theater
 Nashua Community Music School: Recital Hall
 Fody's*
 Country Tavern: Loft
 Country Tavern: Tack Room
 Public Library: Music/Art/Media Wing*
 Public Library: Children's Room*

Regional

Lowell Memorial Auditorium
 Chevalier Theater
 Robinson Theatre
 Undisclosed Facility: Concert Hall•
 Palace Theater
 Stockbridge Theatre
 Somerville Theatre
 Millford Town Hall: Grand Ballroom
 St. Anselm College Dana Center: Koonz Theatre
 Peterborough Town House
 Amato Center for the Performing Arts
 Derryfield Theatre: Nancy S. Boettiger Theatre
 Stoneham Theatre
 Derry Opera House
 Undisclosed Facility: Recital Hall•
 Peterborough Players
 Southern New Hampshire: Walker Auditorium
 Leddy Center
 Tupelo Music Hall
 The Executive Court Banquet Facility
 Franklin Pierce University: Warehouse Theatre
 The Radisson Hotel (Headliners Comedy Club)
 Old Town Hall
 Franklin Pierce University: Cheney Music Hall
 Andy's Summer Playhouse



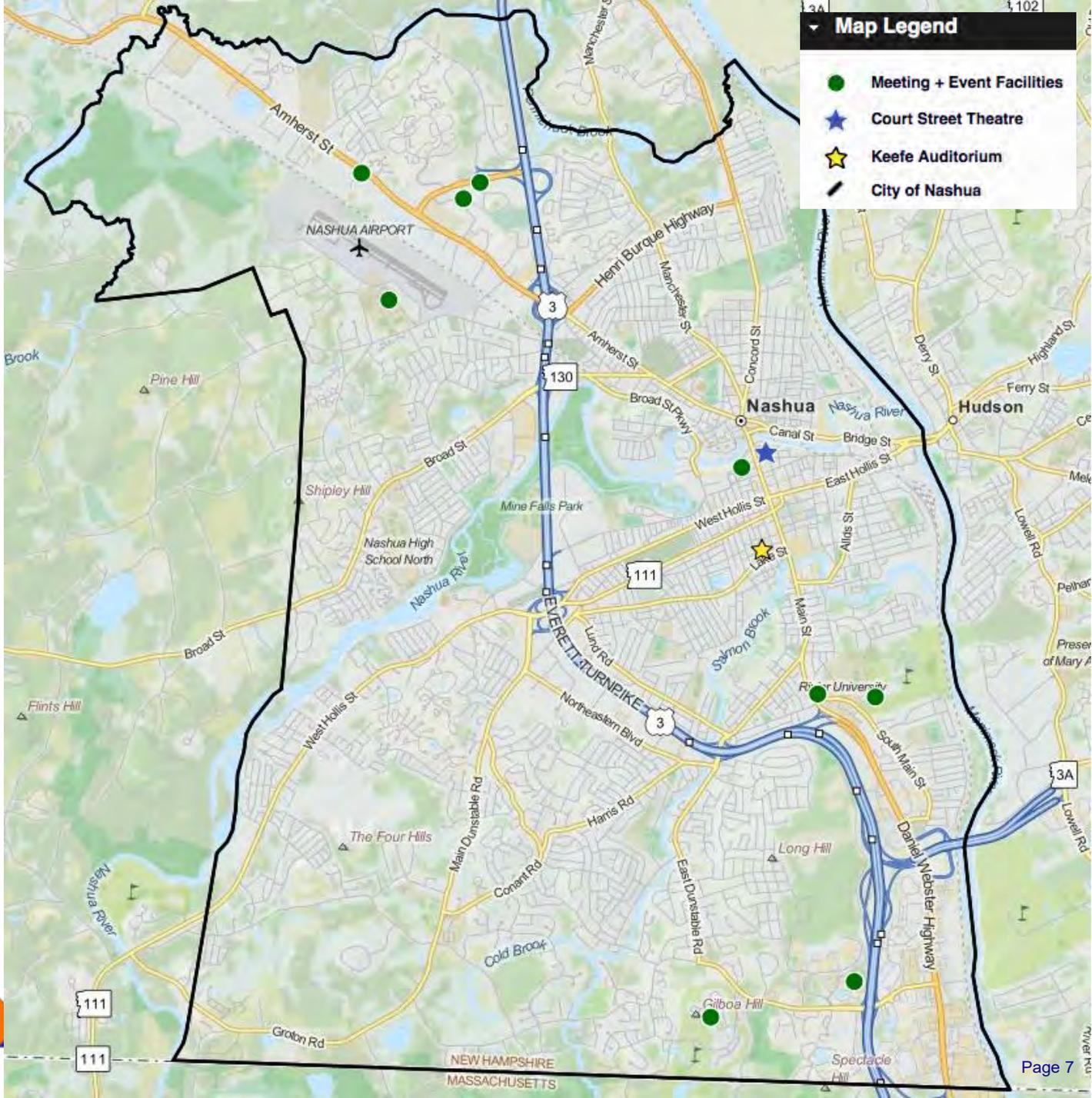
- Local Facilities
- Regional Facilities



Existing meeting + event facilities

Map Legend

- Meeting + Event Facilities
- ★ Court Street Theatre
- ★ Keefe Auditorium
- City of Nashua



Facilities Mapped:

- Courtyard Marriott Hotel
- Crowne Plaza
- Holiday Inn Hotel + Suites
- Radisson Hotel
- Nashua Country Club
- Sky Meadow Country Club
- Welcoming Light, Inc.
- Country Tavern
- Daniel Webster College
- Rivier University



Utilization: user demand

| User Demand: Performance Classroom Space | Rehearsal/ Tech | Performances | Other | Total | Capacity | Classroom Space Demand |
|--|--------------------|--------------|------------|------------|----------|------------------------------|
| Symphony New Hampshire | 7 | 15 | 1 | 23 | 1100 | - |
| Actorsingers (Large Space) | 16 | 6 | - | 22 | 750 | - |
| Gate City Charter School for the Arts | - | 2 | 45 | 47 | 500 | - |
| Positive Street Art | 4 | 4 | - | 8 | 500 | - |
| Spartans Drum & Bugle Corps* | - | - | 2 | 2 | 500 | - |
| Steve Ruddock/Riverwalk Café | - | 24 | - | 24 | 400 | - |
| Peacock Players | 30 | 36 | 166 | 232 | 350 | 166 |
| Actorsingers (Small Space) | 16 | 6 | - | 22 | 350 | - |
| North Main Music School | 2 | 2 | - | 4 | 300 | 2 |
| Nashua Community Music School | 10 | 10 | - | 20 | 250 | 312 |
| Nashua Chamber Orchestra | - | 9 | - | 9 | 200 | - |
| Blue String Marionettes | - | 4 | - | 4 | 200 | - |
| Nashua North High School: Theatre Arts | 8 | 6 | - | 14 | 100 | - |
| Daniel D. Rokswain (Dance Instructor) | - | - | - | 0 | - | 208 |
| Sheetal Kelkar (Indian Dance Instructor) | - | - | - | 0 | - | 3 |
| Total Days of Use: | 93 | 124 | 214 | 431 | - | 691 |

*estimated capacity



| User Demand Summary: Performance Facilities (13 Users)* | Rehearsal/ Tech | Performances | Other | Total |
|---|--------------------|--------------|------------|------------|
| 750+ Seats (2 Users) | 23 | 21 | 1 | 45 |
| 351 to 500 Seats (4 Users) | 4 | 30 | 47 | 81 |
| 350 Seats or fewer (7 Users) | 66 | 73 | 166 | 305 |
| Total Days of Use: | 93 | 124 | 214 | 431 |

*Actorsingers is counted twice to account for demand for a multiple facilities



Utilization: charrette results

| Calendar Totals | | | 600-seat Hall | | | 300-seat Hall | | | 150-seat Multipurpose Space | | |
|----------------------------|------|-------|---------------|-----------|-------|---------------|-----------|-------|-----------------------------|-----------|-------|
| Group | Abb. | Disc. | Event Days | Prep Days | Total | Event Days | Prep Days | Total | Event Days | Prep Days | Total |
| Actorsingers | A/S | TH | 6 | 10 | 16 | 9 | 21 | 30 | | | 0 |
| BlueString Marionettes | TLM | TH | | | 0 | | | 0 | 24 | 24 | 48 |
| City of Nashua | City | X | 10 | | 10 | | | 0 | | | 0 |
| Ghostlight Theater Company | GL | TH | | | 0 | | | 0 | 12 | 13 | 25 |
| Great American Downtown | GAD | X | | | 0 | 57 | 5 | 62 | | | 0 |
| Hear Now Live | HNL | AM | | | 0 | | | 0 | 16 | | 16 |
| Nashua Theatre Guild | NTG | TH | | | 0 | | | 0 | 7 | 14 | 21 |
| Peacock Players | PP | TH | | | 0 | 139 | 61 | 200 | | | 0 |
| Symphony NH | SNH | UM | 2 | 2 | 4 | 4 | 8 | 12 | | | 0 |
| | | | 18 | 12 | 30 | 209 | 95 | 304 | 59 | 51 | 110 |
| Totals by Discipline | | | 600-seat Hall | | | 300-seat Hall | | | 150-seat Multipurpose Space | | |
| Discipline | Abb. | | Event Days | Prep Days | Total | Event Days | Prep Days | Total | Event Days | Prep Days | Total |
| Theatre | TH | | 6 | 10 | 16 | 148 | 82 | 230 | 43 | 51 | 94 |
| Dance | D | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Amplified Music/Ent. | AM | | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 16 |
| Unamplified Music | UM | | 2 | 2 | 4 | 4 | 8 | 12 | 0 | 0 | 0 |
| Opera | O | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Talks | TA | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other | X | | 10 | 0 | 10 | 57 | 5 | 62 | 0 | 0 | 0 |
| | | | 18 | 12 | 30 | 209 | 95 | 304 | 59 | 51 | 110 |



Utilization: key potential partners

- * ***The Educational Sector:*** Nashua and the surrounding region are home to multiple educational institutions, including Rivier University, Nashua Community College, Daniel Webster College, the University of New Hampshire, and Southern New Hampshire University. A partnership with one or more of these entities would connect new arts spaces to an experienced facility operator, ensure a certain level of use, and provide a certain amount of financial stability.
- * ***Local Developers:*** There are handful of active developers in Nashua working to repurpose the city's former warehouses. Some of these projects have been very arts-friendly (The Nashua Area Artists' Association Gallery is currently housed in a commercial building downtown, which also displays the work of local artists throughout the building).
- * ***The Tech + Business Communities:*** Nashua's tech and business communities are growing. New arts facilities could be used for product launches, retreats, customer appreciation events, and so on.



Benefits + impacts

* The Nashua Arts Commission released the **Nashua Arts + Cultural Plan** in 2015. The plan outlined six primary goals for the arts in Nashua:

| | |
|--|--|
| <p>Identity: Create a unique brand to represent Nashua’s culture that distinguishes the city within the region.</p> | <p>Centralization: Develop a collaborative citywide association of arts and culture by understanding and leveraging digital networks and existing venues and spaces within the city.</p> |
| <p>Education: Engage residents of all ages, backgrounds, and abilities in arts and culture by raising awareness from a young age and integrating culture into educational, recreational, and social activities.</p> | <p>Marketing: Attract visitors and residents to local events by publicizing the Nashua cultural brand through strategic outreach and promotion of the arts to both local and broader audiences.</p> |
| <p>Commerce: Produce new economic opportunities for the city by integrating the arts into public and business policies, stimulating Nashua to evolve as a sustainable, resilient, and livable community.</p> | <p>Growth: Encourage proliferation, prosperity, and visibility for both existing and emerging organizations in the arts.</p> |

The development of new arts facilities is in line with many of these goals, particularly identity, centralization, education, and commerce.



Conclusions

- * **The market:** The market is diverse. In all market segments, there are varying levels of educational attainment, household income, races and ethnicities, and ages. This indicates a need for programming that ranges from the hands-on to the traditional, with a range of different price points.
- * **Existing facilities:** Nashua is located in a crowded arts market with a number of facilities that present national touring products. In addition, there are two new facilities planned for one of Nashua's neighboring communities, one of which will present touring musical acts. Even with these facilities, a gap remains for high-quality theatre and dance space. An additional gap exists for meetings and events.
- * **User demand:** There is significant demand for performance facilities with 350 seats or fewer, and also for 500 to 700 seats. An additional 691 days of demand exists for classroom space.
- * **Benefits + impacts:** New arts facilities align with many of the goals identified in the Arts Commission's Arts and Culture Plan, as well as with goals identified in the City's 2010 Consolidated Plan.



Recommendations

- * We presented a series of options to the City in May 2016. Based on feedback, we determined that the best course of action was to consider the development of a new 500-700 seat arts and events venue that could serve a range of nonprofit arts groups and commercial promoters, also responding to demand for a downtown meeting and event venue.
- * We also recommended the development of small and affordable spaces for local groups, potentially through the redevelopment of Court St.
- * Finally, we advocated for the development of a downtown arts district including existing and new facilities.



A large crowd of people is gathered at what appears to be a festival or event. In the background, a balcony or walkway is visible with several people standing on it. The entire scene is overlaid with a semi-transparent orange-red filter.

City of Nashua, NH
Performing Arts and Events Center
Concept Design / Planning Study

January 2017

Bruner/Cott
architects and planners

ASPIRATIONS

Visible, Accessible, Vibrant



ASPIRATIONS

Theater, Music, Arts, Events



INITIAL STUDY SITES

SELECTION CRITERIA

- Access to parking
- Visibility on Main Street
- Proximity to retail
- Adequate footprint

SPRING ST

17,500 sf footprint

MAIN ST

14,500 sf footprint

COURT ST

13,500 sf footprint

WATER ST

11,000 sf footprint

INDIAN HEAD BANK

8,500 sf footprint

SITES SELECTED FOR FURTHER STUDY

SPRING STREET

32,500 sf, 3 floors



new construction

COURT STREET

33,900 sf, 3 floors



interior and exterior renovation

MAIN STREET

30,800 sf, 2 floors



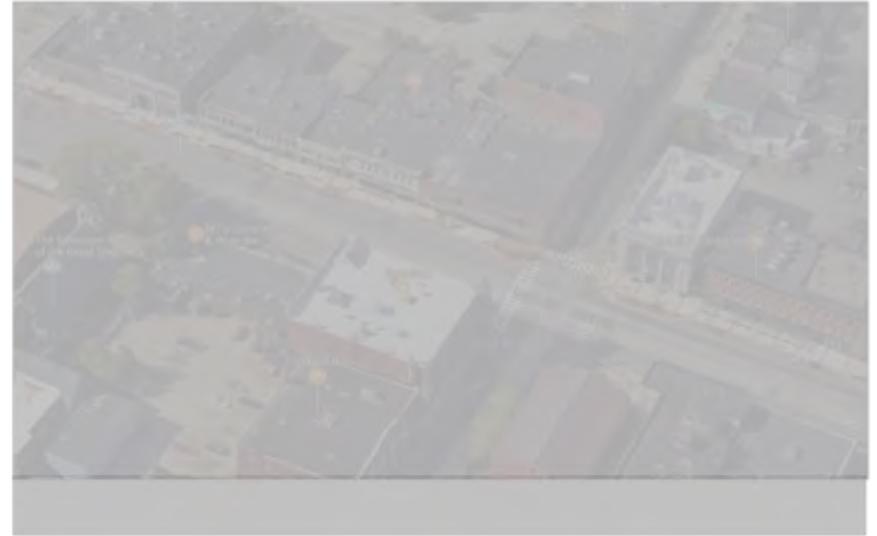
interior and exterior renovation

COMMUNITY RESOURCE

SPRING STREET



MAIN STREET



COURT STREET

33,900 sf, 3 floors



interior and exterior renovation

Lower Court St.

- * There is consensus in the community that Court St. should be improved as and when possible.
- * A portion of the building could be restored for use by local theater groups, including a theater, rehearsal space and support areas.
- * That portion could be operated as a co-op between the groups, or as a lease to one user with conditions motivating rentals to others.
- * The City's financial goal should be to have user groups pay rent sufficient to cover core building expenses.
- * Users provide all services in and for the building, except capital repairs.



COURT STREET COMMUNITY THEATER



Street Level



Lower Level

COURT STREET COMMUNITY THEATER

Capacity

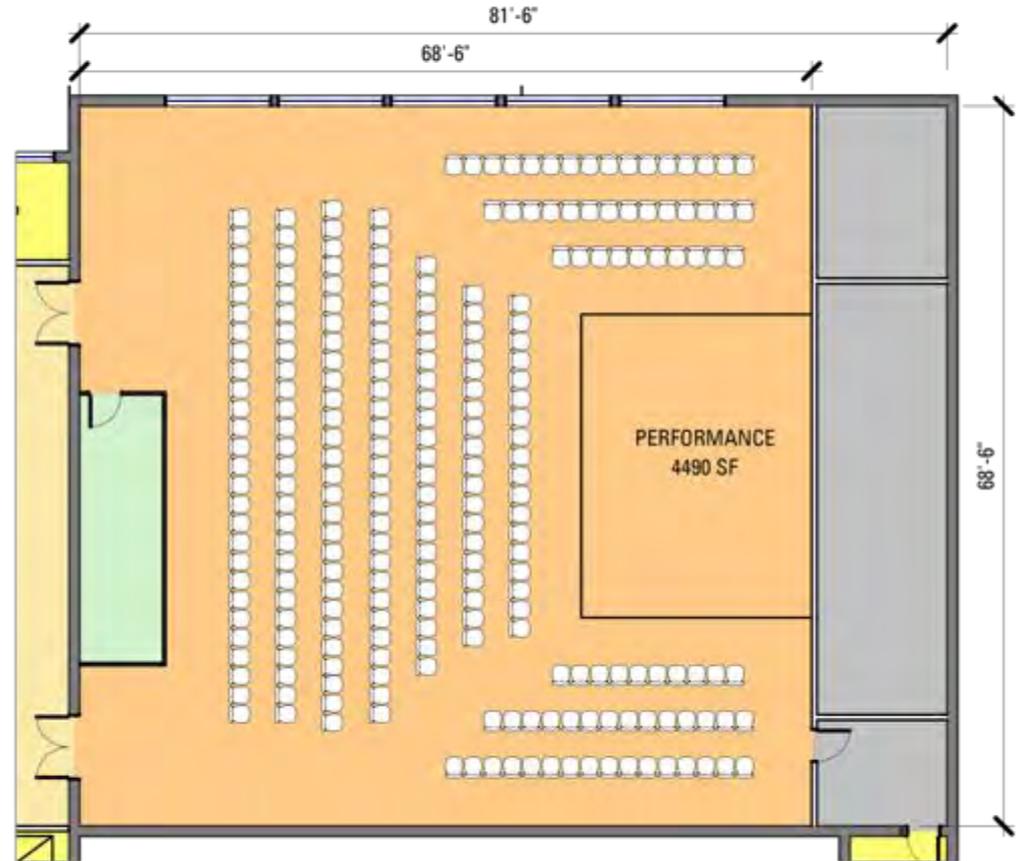
250 tiered seating
640 standing
320 tables & chairs

Scope

19,000-30,000 sf
interior renovation, exterior repair
new HVAC and electrical systems,
upgraded program space

Budget

\$2.5-5.0m projected investment



THEATER LAYOUT - 250 SEATS

Operating Budget for Court St.

| | FY2014 | FY2015 | FY2016 | FY2017 | % | FY2018 | % | FY2019 | % | FY2020 | % | FY2021 |
|-----------------------------|----------------|---------------|----------------|----------------|------|---------------|-----|---------------|-----|---------------|-----|---------------|
| | Actual | Actual | Actual | Budget | Chg | Projected | Chg | Projected | Chg | Projected | Chg | Projected |
| Revenues | | | | | | | | | | | | |
| Monthly Rental | 9,000 | 9,000 | 9,000 | 9,000 | | 24,000 | | 24,720 | | 25,462 | | 26,225 |
| Activity-based Rentals | 34,200 | 39,300 | 24,825 | 35,000 | | 44,832 | | 48,967 | | 52,210 | | 55,674 |
| Secondary Space Rental | | | | | | 5,000 | | 5,618 | | 6,134 | | 6,697 |
| | 43,200 | 48,300 | 33,825 | 44,000 | | 73,632 | | 79,305 | | 83,805 | | 88,596 |
| Expenses | | | | | | | | | | | | |
| Building Manager | 2,050 | 2,110 | 2,173 | 2,260 | | | | | | | | |
| Maintenance Specialist | 7,764 | 8,022 | 18,181 | 18,908 | 3% | 19,475 | 3% | 20,060 | 3% | 20,662 | 3% | 21,281 |
| Building Services | 1,250 | 1,400 | 1,400 | 900 | | 1,518 | | 1,563 | | 1,610 | | 1,658 |
| Utilities | 34,228 | 37,228 | 41,877 | 51,500 | | 43,425 | | 44,727 | | 46,069 | | 47,451 |
| Supplies | 522 | 1,066 | 1,515 | 2,500 | | 1,757 | | 1,809 | | 1,864 | | 1,920 |
| Maintenance | 9,714 | 8,996 | 11,317 | 12,500 | | 8,783 | | 9,047 | | 9,318 | | 9,598 |
| | 55,528 | 56,822 | 76,463 | 88,568 | | 74,958 | | 77,206 | | 79,523 | | 81,908 |
| Result of Operations | -12,328 | -8,522 | -42,638 | -44,568 | | -1,326 | | 2,099 | | 4,282 | | 6,687 |
| GSF | 33,800 | 33,800 | 33,800 | 33,800 | | 19,000 | | 19,000 | | 19,000 | | 19,000 |
| Building Services/sf | \$ 0.04 | \$ 0.04 | \$ 0.04 | \$ 0.03 | 200% | \$ 0.08 | 3% | \$ 0.08 | 3% | \$ 0.08 | 3% | \$ 0.09 |
| Utilities/sf | \$ 1.01 | \$ 1.10 | \$ 1.24 | \$ 1.52 | 50% | \$ 2.29 | 3% | \$ 2.35 | 3% | \$ 2.42 | 3% | \$ 2.50 |
| Supplies/sf | \$ 0.02 | \$ 0.03 | \$ 0.04 | \$ 0.07 | 25% | \$ 0.09 | 3% | \$ 0.10 | 3% | \$ 0.10 | 3% | \$ 0.10 |
| Maintenance/sf | \$ 0.29 | \$ 0.21 | \$ 0.33 | \$ 0.37 | 25% | \$ 0.46 | 3% | \$ 0.48 | 3% | \$ 0.49 | 3% | \$ 0.51 |
| CPI Escalator | | | | | 3% | | 3% | | 3% | | 3% | |

| | FY2014 | FY2015 | FY2016 | FY2017 | % | FY2018 | % | FY2019 | % | FY2020 | % | FY2021 |
|-----------------------------|----------------|---------------|----------------|----------------|------|---------------|-----|---------------|-----|---------------|-----|---------------|
| | Actual | Actual | Actual | Budget | Chg | Projected | Chg | Projected | Chg | Projected | Chg | Projected |
| Revenues | | | | | | | | | | | | |
| Monthly Rental | 9,000 | 9,000 | 9,000 | 9,000 | | 24,000 | | 24,720 | | 25,462 | | 26,225 |
| Activity-based Rentals | 34,200 | 39,300 | 24,825 | 35,000 | | 44,832 | | 48,967 | | 52,210 | | 55,674 |
| Secondary Space Rental | | | | | | 5,000 | | 5,618 | | 6,134 | | 6,697 |
| | 43,200 | 48,300 | 33,825 | 44,000 | | 73,632 | | 79,305 | | 83,805 | | 88,596 |
| Expenses | | | | | | | | | | | | |
| Building Manager | 2,050 | 2,110 | 2,173 | 2,260 | | | | | | | | |
| Maintenance Specialist | 7,764 | 8,022 | 18,181 | 18,908 | 3% | 19,475 | 3% | 20,060 | 3% | 20,662 | 3% | 21,281 |
| Building Services | 1,250 | 1,400 | 1,400 | 900 | | 1,518 | | 1,563 | | 1,610 | | 1,658 |
| Utilities | 34,228 | 37,228 | 41,877 | 51,500 | | 43,425 | | 44,727 | | 46,069 | | 47,451 |
| Supplies | 522 | 1,066 | 1,515 | 2,500 | | 1,757 | | 1,809 | | 1,864 | | 1,920 |
| Maintenance | 9,714 | 8,996 | 11,317 | 12,500 | | 8,783 | | 9,047 | | 9,318 | | 9,598 |
| | 55,528 | 56,822 | 76,463 | 88,568 | | 74,958 | | 77,206 | | 79,523 | | 81,908 |
| Result of Operations | -12,328 | -8,522 | -42,638 | -44,568 | | -1,326 | | 2,099 | | 4,282 | | 6,687 |
| GSF | 33,800 | 33,800 | 33,800 | 33,800 | | 19,000 | | 19,000 | | 19,000 | | 19,000 |
| Building Services/sf | \$ 0.04 | \$ 0.04 | \$ 0.04 | \$ 0.03 | 200% | \$ 0.08 | 3% | \$ 0.08 | 3% | \$ 0.08 | 3% | \$ 0.09 |
| Utilities/sf | \$ 1.01 | \$ 1.10 | \$ 1.24 | \$ 1.52 | 50% | \$ 2.29 | 3% | \$ 2.35 | 3% | \$ 2.42 | 3% | \$ 2.50 |
| Supplies/sf | \$ 0.02 | \$ 0.03 | \$ 0.04 | \$ 0.07 | 25% | \$ 0.09 | 3% | \$ 0.10 | 3% | \$ 0.10 | 3% | \$ 0.10 |
| Maintenance/sf | \$ 0.29 | \$ 0.21 | \$ 0.33 | \$ 0.37 | 25% | \$ 0.46 | 3% | \$ 0.48 | 3% | \$ 0.49 | 3% | \$ 0.51 |
| CPI Escalator | | | | | 3% | | 3% | | 3% | | 3% | |

| | FY2014 | FY2015 | FY2016 | FY2017 | % | FY2018 | % | FY2019 | % | FY2020 | % | FY2021 |
|-------------------------------|----------------|---------------|----------------|----------------|------|---------------|-----|---------------|-----|---------------|-----|---------------|
| | Actual | Actual | Actual | Budget | Chg | Projected | Chg | Projected | Chg | Projected | Chg | Projected |
| Revenues | | | | | | | | | | | | |
| Monthly Rental | 9,000 | 9,000 | 9,000 | 9,000 | | 24,000 | | 24,720 | | 25,462 | | 26,225 |
| Activity-based Rentals | 34,200 | 39,300 | 24,825 | 35,000 | | 44,832 | | 48,967 | | 52,210 | | 55,674 |
| Secondary Space Rental | | | | | | 5,000 | | 5,618 | | 6,134 | | 6,697 |
| | 43,200 | 48,300 | 33,825 | 44,000 | | 73,632 | | 79,305 | | 83,805 | | 88,596 |
| Expenses | | | | | | | | | | | | |
| Building Manager | 2,050 | 2,110 | 2,173 | 2,260 | | | | | | | | |
| Maintenance Specialist | 7,764 | 8,022 | 18,181 | 18,908 | 3% | 19,475 | 3% | 20,060 | 3% | 20,662 | 3% | 21,281 |
| Building Services | 1,250 | 1,400 | 1,400 | 900 | | 1,518 | | 1,563 | | 1,610 | | 1,658 |
| Utilities | 34,228 | 37,228 | 41,877 | 51,500 | | 43,425 | | 44,727 | | 46,069 | | 47,451 |
| Supplies | 522 | 1,066 | 1,515 | 2,500 | | 1,757 | | 1,809 | | 1,864 | | 1,920 |
| Maintenance | 9,714 | 8,996 | 11,317 | 12,500 | | 8,783 | | 9,047 | | 9,318 | | 9,598 |
| | 55,528 | 56,822 | 76,463 | 88,568 | | 74,958 | | 77,206 | | 79,523 | | 81,908 |
| Result of Operations | -12,328 | -8,522 | -42,638 | -44,568 | | -1,326 | | 2,099 | | 4,282 | | 6,687 |
| GSF | 33,800 | 33,800 | 33,800 | 33,800 | | 19,000 | | 19,000 | | 19,000 | | 19,000 |
| Building Services/sf | \$ 0.04 | \$ 0.04 | \$ 0.04 | \$ 0.03 | 200% | \$ 0.08 | 3% | \$ 0.08 | 3% | \$ 0.08 | 3% | \$ 0.09 |
| Utilities/sf | \$ 1.01 | \$ 1.10 | \$ 1.24 | \$ 1.52 | 50% | \$ 2.29 | 3% | \$ 2.35 | 3% | \$ 2.42 | 3% | \$ 2.50 |
| Supplies/sf | \$ 0.02 | \$ 0.03 | \$ 0.04 | \$ 0.07 | 25% | \$ 0.09 | 3% | \$ 0.10 | 3% | \$ 0.10 | 3% | \$ 0.10 |
| Maintenance/sf | \$ 0.29 | \$ 0.21 | \$ 0.33 | \$ 0.37 | 25% | \$ 0.46 | 3% | \$ 0.48 | 3% | \$ 0.49 | 3% | \$ 0.51 |
| CPI Escalator | | | | | 3% | | 3% | | 3% | | 3% | |
| Main Tenant Rental | | | | | | | | | | | | |
| Rental Period | | | | Monthly | | Monthly | | Monthly | | Monthly | | Monthly |
| Rent/Period | | | | \$ 250.00 | | \$ 2,000.00 | 3% | \$ 2,060.00 | 3% | \$ 2,121.80 | 3% | \$ 2,185.45 |
| Rentals | | | | 36 | | 12 | | 12 | | 12 | | 12 |
| Effective Rent/sf | | | | \$ 0.27 | | \$ 1.26 | | \$ 1.30 | | \$ 1.34 | | \$ 1.38 |
| Theater Space Rentals | | | | | | | | | | | | |
| Rental Period | | | | Daily | | Daily | | Daily | | Daily | | Daily |
| Rent/Period | | | | \$ 300.00 | 3% | \$ 309.00 | 6% | \$ 327.54 | 3% | \$ 337.37 | 3% | \$ 347.49 |
| Rentals | | | | 117 | 3% | 120 | 3% | 124 | 3% | 127 | 3% | 131 |
| Rehearsal Hall Rentals | | | | | | | | | | | | |
| Rental Period | | | | | | Four-hour | | Four-hour | | Four-hour | | Four-hour |
| Rent/Period | | | | | | \$ 50.00 | 6% | \$ 53.00 | 3% | \$ 54.59 | 3% | \$ 56.23 |
| Rentals | | | | | | 100 | 6% | 106 | 6% | 112 | 6% | 119 |
| Classroom Rentals | | | | | | | | | | | | |
| Rental Period | | | | | | Four-hour | | Four-hour | | Four-hour | | Four-hour |
| Rent/Period | | | | | | \$ 25.00 | 6% | \$ 26.50 | 3% | \$ 27.30 | 3% | \$ 28.11 |
| Rentals | | | | | | 100 | 6% | 106 | 6% | 112 | 6% | 119 |

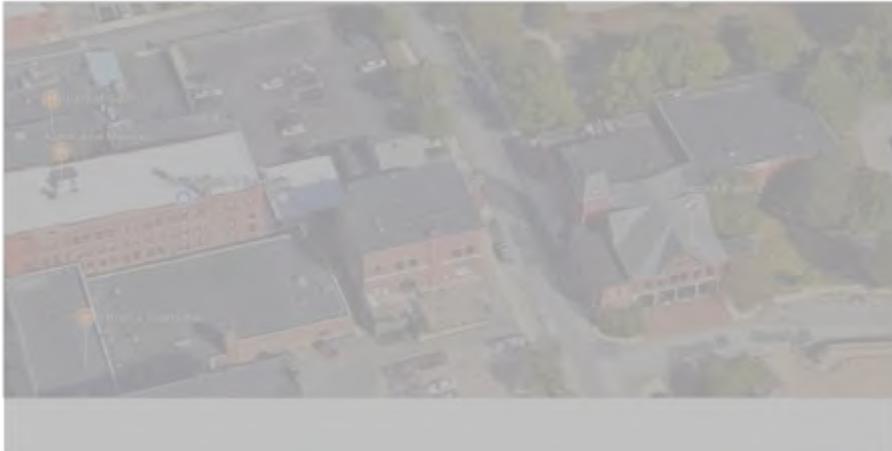


PREFERRED DEVELOPMENT SITE

SPRING STREET



COURT STREET



MAIN STREET



- Access to parking
- Visibility on Main Street
- Proximity to retail
- Adequate footprint

MAIN STREET PERFORMING ARTS CENTER



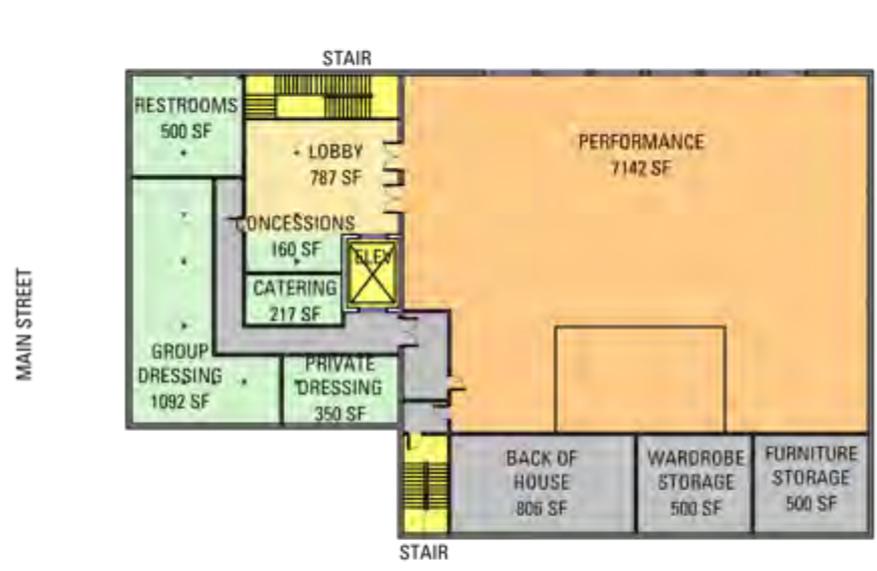
MAIN STREET PERFORMING ARTS CENTER



MAIN STREET PERFORMING ARTS CENTER



Street Level



Second Floor

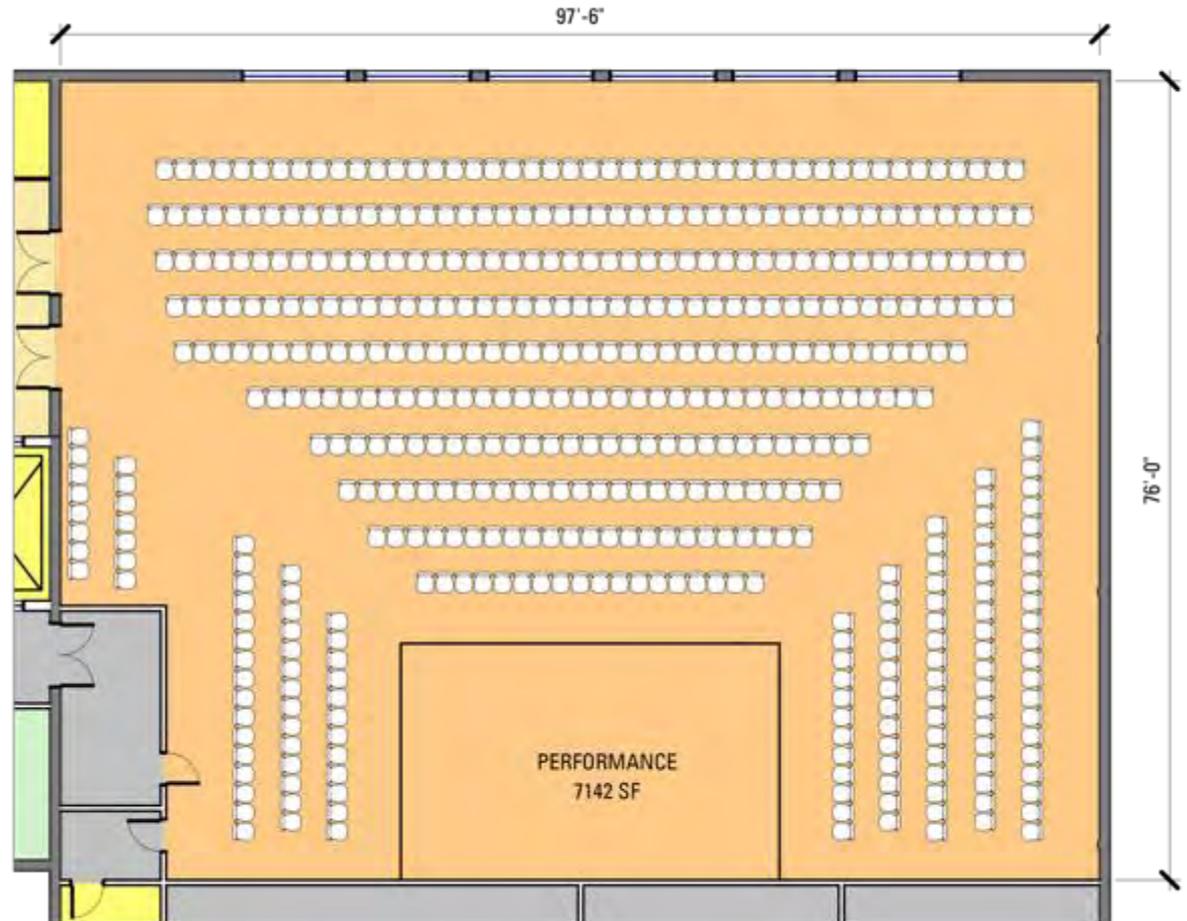
MAIN STREET PERFORMING ARTS CENTER

Capacity

500 tiered seating

1,000 standing

550 tables & chairs



THEATER LAYOUT - 500 SEATS

MAIN STREET PERFORMING ARTS CENTER



MAIN STREET PERFORMING ARTS CENTER

Scope

30,000 total sf, 2 floors

interior and exterior renovation

new theater, support facilities, entry lobby, event space, retail

Budget

\$15.5m projected total project cost

Before



After



Operating goals for a new arts + events center

- * Present high-quality arts and entertainment programming of interest to the permanent population and other visitors to the area.
- * Support local businesses, government and citizens with professional meeting and event facilities.
- * Provide affordable access to well-equipped performance, rehearsal, and support spaces for users that are working towards the cultural development of Nashua and the region.
- * Contribute to the economic vitality of Nashua and the wider region with active facilities that drive economic and community development.
- * Utilize a sustainable business model primarily driven by earned income.



Governance recommendations

In this case we recommend that the City of Nashua be the owner and and operator, with at least two partners:

1. A foundation to raise money and represent the interests of the private sector.
2. A programmer to bring cultural and entertainment events to the new facility.

We make this recommendation given:

- * The City has the resources and the ability to recruit the skills required to manage the Center, and the City's mandate to serve local residents is consistent with our operating goals of providing access and support to local and regional residents and visitors.
- * The Foundation can play a role through the renovation, leading the private sector component of the capital campaign and providing guidance and advice to the City as the project advances. Once the Center opens, the Foundation can play an ongoing role in fundraising for annual support, taking some responsibility for programming, education, and outreach. That promise of an ongoing role will be important to drive private sector financial support for construction and operations.
- * A programmer can be solicited through a competitive bid process and be contracted to take the risk on programming the Center.

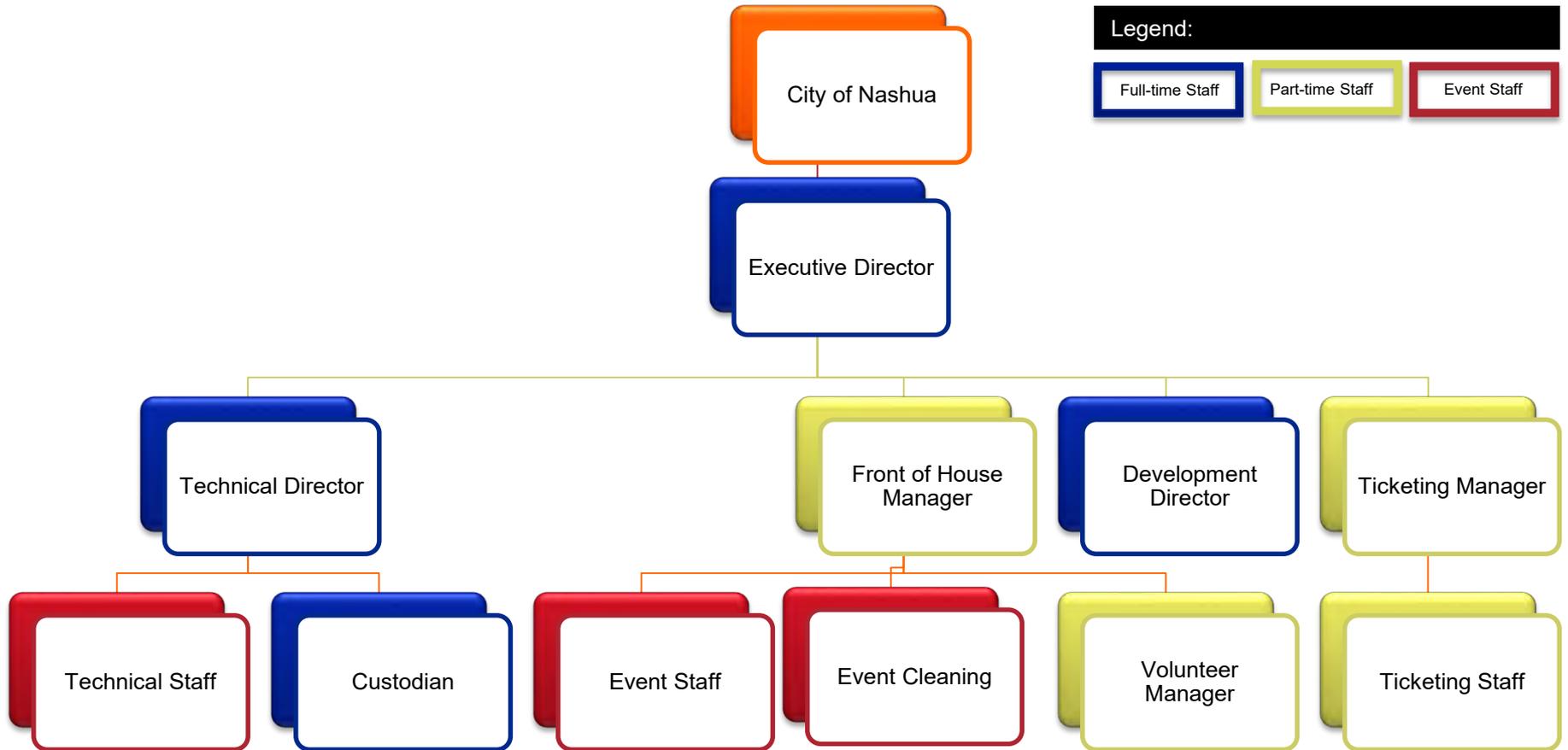


Operating policy

- * Access + scheduling
- * Rental rates + fees
- * Resident status for particular groups
- * Ticketing + analytics
- * Food + beverage operations
- * Volunteer leadership + support
- * Green operations



Staffing plan



Pro-forma operating budget

- * A live, Excel-based model that starts with activity estimates.
- * The year before the theatre opens, plus five years of operations.
- * Fully-developed staff and infrastructure to support programming estimates – from the outset.



Reference Points: Facility Characteristics

| | Colonial Theatre (Keene, NH) | Spruce Peak Performing Arts Center (Stowe, VT) | Ridgefield Playhouse (Ridgefield, CT) | Historic Town Hall Theatre (Woodstock, VT) |
|---------------------|---------------------------------|---|--|--|
| Owner | Nonprofit | Nonprofit | Nonprofit | Town |
| Operator | Nonprofit | Nonprofit | Nonprofit | Nonprofit |
| Theater Capacity | 888 | 420 | 500 | 400 |
| Other Public Spaces | Colonial Corner (60) | Various event spaces within Stowe Mountain Resort | Party room (100) | Meeting room(s) |

Reference Points: Staffing Levels

| | Colonial Theatre (Keene, NH) | Spruce Peak Performing Arts Center (Stowe, VT) | Ridgefield Playhouse (Ridgefield, CT) | Historic Town Hall Theatre (Woodstock, VT) |
|---|---------------------------------|--|--|--|
| Payroll Expenses | \$530,369 | \$462,114 | \$581,689 | \$175,536 |
| Payroll Expenses (as % of Operating Expenses) | 32% | 31% | 13% | 27% |
| Staff | 35 | 19 | 122 | 24 |
| Board Members | 12 | 6 | 15 | 13 |
| Executive Director Base Salary | \$81,351 | - | - | \$47,000 |

Reference Points: Income

| | Colonial Theatre (Keene, NH) | Spruce Peak Performing Arts Center (Stowe, VT) | Ridgefield Playhouse (Ridgefield, CT) | Historic Town Hall Theatre (Woodstock, VT) |
|---|---------------------------------|--|--|--|
| Year of Budget | 2015 | 2013 | 2014 | 2015 |
| Rental Income | \$44,850 | \$55,115 | \$44,173 | \$9,709 |
| Total Earned Income | \$807,374 | \$243,205 | \$3,975,758 | \$262,356 |
| Contributed Income from Public Sources | N/A | \$0 | \$50,795 | \$71,100 |
| Contributed Income from Private Sources (Foundation, Corporate, Individuals, Events) | N/A | \$243,205 | \$670,003 | \$243,768 |
| Total Contributed Income | \$487,424 | \$312,451 | \$720,798 | \$314,868 |
| Total Operating Expenses | \$1,638,254 | \$1,484,948 | \$4,621,049 | \$647,872 |
| Operating Surplus (Deficit) | (\$231,677) | (\$929,081) | \$365,731 | (\$49,095) |
| Earned Income (as % of Operating Expenses) | 49% | 16% | 86% | 40% |

Pro-forma operating budget

| Pro-forma Activity Summary | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|----------------------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Main Theater | Performances | 76 | 76 | 81 | 84 | 88 |
| | Use Days | 172 | 174 | 181 | 187 | 194 |
| Multipurpose Room | Use Days | 90 | 93 | 95 | 90 | 93 |
| Estimated Performance Attendance | | 25,150 | 24,400 | 26,255 | 27,650 | 29,340 |
| Estimated Base Rent Collected | Resident Users | \$ 30,750 | \$ 30,753 | \$ 32,812 | \$ 33,561 | \$ 35,774 |
| | Other nonprofits | \$ 31,500 | \$ 32,283 | \$ 34,957 | \$ 37,248 | \$ 40,104 |
| | Commercial user | \$ 47,250 | \$ 51,179 | \$ 55,245 | \$ 58,738 | \$ 63,079 |
| | Total | \$ 109,500 | \$ 114,215 | \$ 123,014 | \$ 129,547 | \$ 138,957 |



Pro-forma operating budget

| Pro-forma Budget Summary | Pre-Opening | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---------------------------------|----------------|----------------|----------------|------------------|------------------|------------------|
| Earned Income | | | | | | |
| Ticket Sales | | 117,000 | 105,570 | 114,496 | 129,467 | 136,874 |
| Rental Income | | 191,250 | 199,308 | 211,552 | 221,076 | 234,130 |
| Theater User Fees | | 229,500 | 239,170 | 253,863 | 265,291 | 280,956 |
| Food Service | | 36,650 | 37,832 | 42,360 | 50,036 | 54,538 |
| Miscellaneous Income | | 120,600 | 119,772 | 130,512 | 140,508 | 151,348 |
| | | 695,000 | 701,651 | 752,783 | 806,378 | 857,846 |
| Contributed Income | | | | | | |
| Individual Contributions | ☞ 0 | 25,000 | 25,500 | 26,010 | 26,530 | 27,061 |
| Corporate Contributions | ☞ 0 | 25,000 | 25,500 | 26,010 | 26,530 | 27,061 |
| Foundation Grants | ☞ 0 | 25,000 | 25,500 | 26,010 | 26,530 | 27,061 |
| Government (non-local) | ☞ 0 | 25,000 | 25,500 | 26,010 | 26,530 | 27,061 |
| Endowment Income | 160,000 | 160,000 | 160,000 | 160,000 | 160,000 | 160,000 |
| | 160,000 | 260,000 | 262,000 | 264,040 | 266,121 | 268,243 |
| Total Income | 160,000 | 955,000 | 963,651 | 1,016,823 | 1,072,499 | 1,126,090 |
| Operating Expenses | | | | | | |
| Total Personnel | 185,250 | 474,235 | 491,597 | 513,429 | 535,187 | 558,869 |
| Programming Costs | 0 | 119,250 | 110,344 | 117,690 | 131,590 | 137,255 |
| Fundraising | 10,000 | 20,000 | 21,000 | 22,050 | 23,153 | 24,310 |
| Box Office | 0 | 51,295 | 50,454 | 54,762 | 58,987 | 63,763 |
| Administration | 23,500 | 49,500 | 51,975 | 54,574 | 57,302 | 60,168 |
| Occupancy Costs | 0 | 210,000 | 214,200 | 218,484 | 222,854 | 227,311 |
| Total Operating Expenses | 218,750 | 924,280 | 939,570 | 980,989 | 1,029,072 | 1,071,676 |
| Result of Operations | -58,750 | 30,720 | 24,081 | 35,834 | 43,427 | 54,414 |
| Allocation from Capital Budget | 75,000 | 0 | 0 | 0 | 0 | 0 |
| Allocation to Capital Reserve | 0 | 0 | 0 | 0 | 25,000 | 50,000 |
| Final Result | 16,250 | 30,720 | 24,081 | 35,834 | 18,427 | 4,414 |
| Earned Income/Op Expenses | 0 | 75% | 75% | 77% | 78% | 80% |



Economic impact analysis

- * Calculates the economic impacts of building and operating new facilities in Nashua.
- * Informed by RIMS Type II multipliers purchased from the Federal Bureau of Labor for Hillsborough County.
- * Direct, indirect, and induced impacts based on construction, operations, and audiences.
- * Year three of operations for new facilities.



Economic impacts - quantitative

| One-time Impacts of Construction on Hillborough County | | |
|--|---|-----------------|
| Input - Construction Budget | | \$ 12,000,000 |
| Outputs | Final Demand Multipliers (Industry 2332C0) | Project Outputs |
| Sales | 1.6609 | \$ 19,930,800 |
| Earnings | 0.4942 | \$ 5,930,400 |
| Employment (person-years of employment) | 9.3501 | 112 |



Economic impacts - quantitative

Annual Operating Impacts on Hillsborough County

Bill of Goods Approach (Year 3)

| Category | Inputs | | \$ Spent in Hillsborough county | Multipliers | | | Outputs | | |
|------------------------------------|------------------------------------|--------------------------------|---------------------------------|------------------|--------------------|----------------|---------------------|--------------------|-------------------|
| | Current Non-personnel expenditures | % Spent in Hillsborough county | | Output (dollars) | Earnings (dollars) | Empl't (jobs) | New Sales (\$000's) | Earnings (\$000's) | New Empl't (jobs) |
| Power Generation and Supply | \$ 70,000 | 75% | \$ 52,500 | 1.3076 | 0.1771 | 2.7695 | \$ 91,532 | \$ 12,397 | 0.2 |
| Water, Sewage and other System | \$ 10,000 | 50% | \$ 5,000 | 1.4491 | 0.2471 | 5.0512 | \$ 14,491 | \$ 2,471 | 0.1 |
| Retail Trade | \$ 10,000 | 75% | \$ 7,500 | 1.6216 | 0.3829 | 12.2031 | \$ 16,216 | \$ 3,829 | 0.1 |
| Transit & Passenger Transportation | \$ 5,000 | 75% | \$ 3,750 | 1.7387 | 0.5255 | 17.4619 | \$ 8,694 | \$ 2,628 | 0.1 |
| Telecommunications | \$ 20,000 | 75% | \$ 15,000 | 1.6276 | 0.4569 | 5.5586 | \$ 32,552 | \$ 9,138 | 0.1 |
| Insurance Agencies/Brokerage | \$ 60,000 | 50% | \$ 30,000 | 1.9672 | 0.4342 | 8.0480 | \$ 118,032 | \$ 26,052 | 0.5 |
| Equipment Rental | \$ 25,000 | 50% | \$ 12,500 | 1.4387 | 0.2703 | 4.2671 | \$ 35,968 | \$ 6,758 | 0.1 |
| Legal Services | \$ 10,000 | 75% | \$ 7,500 | 1.6068 | 0.4717 | 8.6561 | \$ 16,068 | \$ 4,717 | 0.1 |
| Accounting & Bookkeeping Services | \$ 25,000 | 75% | \$ 18,750 | 1.5486 | 0.4710 | 10.5265 | \$ 38,715 | \$ 11,775 | 0.3 |
| Computer related services | \$ 25,000 | 50% | \$ 12,500 | 1.6360 | 0.4924 | 9.9939 | \$ 40,900 | \$ 12,310 | 0.2 |
| Advertising & related services | \$ 50,000 | 50% | \$ 25,000 | 1.5798 | 0.3106 | 7.8755 | \$ 78,990 | \$ 15,530 | 0.4 |
| Professional & Technical Services | \$ 10,000 | 50% | \$ 5,000 | 1.6217 | 0.4156 | 7.1682 | \$ 16,217 | \$ 4,156 | 0.1 |
| Office administrative services | \$ 20,000 | 75% | \$ 15,000 | 1.6552 | 0.6029 | 9.9704 | \$ 33,104 | \$ 12,058 | 0.2 |
| Business support services | \$ 15,000 | 50% | \$ 7,500 | 1.7086 | 0.4927 | 13.2562 | \$ 25,629 | \$ 7,391 | 0.2 |
| Services to building | \$ 15,000 | 75% | \$ 11,250 | 1.5653 | 0.3745 | 13.0903 | \$ 23,480 | \$ 5,618 | 0.2 |
| Waste management | \$ 10,000 | 100% | \$ 10,000 | 1.5719 | 0.3043 | 6.2824 | \$ 15,719 | \$ 3,043 | 0.1 |
| Other Educational Services | \$ 15,000 | 75% | \$ 11,250 | 1.7992 | 0.5508 | 18.8192 | \$ 26,988 | \$ 8,264 | 0.3 |
| Performing arts companies | \$ 25,000 | 50% | \$ 12,500 | 1.6305 | 0.3863 | 17.6982 | \$ 40,763 | \$ 9,658 | 0.4 |
| Promoters of performing arts | \$ 25,000 | 25% | \$ 6,250 | 1.7006 | 0.3491 | 15.0659 | \$ 42,515 | \$ 8,728 | 0.4 |
| Accommodation | \$ 5,000 | 100% | \$ 5,000 | 1.5589 | 0.3542 | 11.2025 | \$ 7,795 | \$ 1,771 | 0.1 |
| Food services | \$ 10,000 | 75% | \$ 7,500 | 1.6308 | 0.2822 | 10.9680 | \$ 16,308 | \$ 2,822 | 0.1 |
| Postal Service | \$ 15,000 | 100% | \$ 15,000 | 1.5243 | 0.4781 | 8.5129 | \$ 22,865 | \$ 7,172 | 0.1 |
| Averages and Totals | \$ 480,000 | | \$ 281,250 | 1.6174 | 0.3977 | 10.2825 | \$ 740,674 | \$ 171,111 | 4.1 |



Economic impacts - quantitative

Estimating Audiences

| | | |
|--------------------------------|-----|--------|
| Year 3 Paid Theater Attendance | | 26,000 |
| Hillborough County Attenders | 70% | 18,200 |
| Recovered County Attenders | 20% | 5,200 |
| Non-County Attenders | 30% | 7,800 |

Ancillary Spending Impacts of the Center Theatre on Hillborough County

| Ancillary Spending Impacts | Per Capita Expenditure Estimate | Total Direct (Induced) Expenditures | Output Multiplier | Total New Outputs (Sales) | Earnings Multiplier | Total New Earnings | Job Creation Multiplier | Total New Jobs |
|--|---------------------------------|-------------------------------------|-------------------|---------------------------|---------------------|--------------------|-------------------------|----------------|
| 1. Recovered Hillborough County Attenders | | | | | | | | |
| Food Services | \$ 11.16 | \$ 58,032 | 1.6308 | \$ 94,639 | 0.2822 | \$ 16,377 | 10.9680 | 0.6 |
| Retail Trade | \$ 3.41 | \$ 17,732 | 1.6216 | \$ 28,754 | 0.3829 | \$ 6,790 | 12.2031 | 0.2 |
| Transportation | \$ 1.63 | \$ 8,476 | 1.7387 | \$ 14,737 | 0.5255 | \$ 4,454 | 17.4619 | 0.1 |
| Accommodation | \$ 0.29 | \$ 1,508 | 1.5589 | \$ 2,351 | 0.3542 | \$ 534 | 11.2025 | 0.0 |
| Miscellaneous | \$ 0.92 | \$ 4,784 | 1.6174 | \$ 7,737 | 0.3977 | \$ 1,903 | 10.2825 | 0.0 |
| Sub-total | | \$ 90,532 | | \$ 148,218 | | \$ 30,057 | | 1.1 |
| 2. Non Hillsborough County Attenders | | | | | | | | |
| Food Services | \$ 17.39 | \$ 135,642 | 1.6308 | \$ 221,205 | 0.2822 | \$ 38,278 | 10.9680 | 1.5 |
| Retail Trade | \$ 5.40 | \$ 42,120 | 1.6216 | \$ 68,302 | 0.3829 | \$ 16,128 | 12.2031 | 0.5 |
| Transportation | \$ 4.83 | \$ 37,674 | 1.7387 | \$ 65,504 | 0.5255 | \$ 19,798 | 17.4619 | 0.7 |
| Accommodation | \$ 10.39 | \$ 81,042 | 1.5589 | \$ 126,336 | 0.3542 | \$ 28,705 | 11.2025 | 0.9 |
| Miscellaneous | \$ 1.95 | \$ 15,210 | 1.6174 | \$ 24,600 | 0.3977 | \$ 6,050 | 10.2825 | 0.2 |
| Sub-total | | \$ 311,688 | | \$ 505,947 | | \$ 108,958 | | 3.7 |
| Total Impact of Ancillary Spending | Total (1+2) | \$ 402,220 | | \$ 654,165 | | \$ 139,015 | | 4.8 |

* Based on Americans for the Arts Prosperity Index V (2012)



Economic impacts - quantitative

| Summary of Economic Impacts on Hillsborough County | | |
|--|-----------------------------|--------------|
| Construction Impacts | Input (Local Expenditures) | \$12,000,000 |
| | Output (Sales) | \$19,930,800 |
| | Earnings | \$5,930,400 |
| | Jobs Created (person-years) | 112 |
| Ongoing Annual Impacts Operations | Input (Year 3 Spending) | \$460,000 |
| | Output (Sales) | \$740,674 |
| | Earnings | \$171,111 |
| | Jobs Created (annual) | 4 |
| Audience Spending | Input (Year 3 Spending) | \$402,220 |
| | Output (Sales) | \$654,165 |
| | Earnings | \$139,015 |
| | Jobs Created (annual) | 5 |
| Total Annual Operating Impacts | Output (Sales) | \$1,394,839 |
| | Earnings | \$310,126 |
| | Jobs Created (annual) | 9 |



Economic impacts - qualitative

- * A catalytic project for the redevelopment of downtown Nashua.
- * Attracting companies, workers, and residents to downtown Nashua.
- * A key attraction within a district for tourism development.



NASHUA PERFORMING ARTS FACILITIES CRITICAL PATH PLAN

| | | 2017 | | 2018 | | | | 2019 | | | | 2020 | | | | |
|---|----------------------------|------|----|------|----|----|----|------|----|----|----|------|----|----|----|--|
| Responsibility | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | |
| Track One: Fundraising | | | | | | | | | | | | | | | | |
| Bond request | City | █ | | | | | | | | | | | | | | |
| Form endowment campaign | City | █ | | | | | | | | | | | | | | |
| Capital campaign targets | Capital Campaign Committee | | █ | | | | | | | | | | | | | |
| Engage campaign consultant | Capital Campaign Committee | | █ | | | | | | | | | | | | | |
| Campaign planning | Campaign Consultant | | | █ | | | | | | | | | | | | |
| Endowment campaign | Campaign Consultant | | | █ | █ | | | | | | | | | | | |
| Bonds issued | City | | | | █ | █ | | █ | █ | | | | | | | |
| Naming rights secured | Campaign Consultant | | | | | | | █ | █ | | | | | | | |
| Track Two: Planning, Design & Construction | | | | | | | | | | | | | | | | |
| Form Building Committee | City | █ | | | | | | | | | | | | | | |
| Design team contracting | Building Committee | | █ | | | | | | | | | | | | | |
| Programming and costing study | Building Committee | | █ | █ | | | | | | | | | | | | |
| Schematic design | Building Committee | | | █ | | | | | | | | | | | | |
| Design development | Building Committee | | | █ | █ | | | | | | | | | | | |
| Contract documents | Building Committee | | | | █ | █ | | █ | █ | | | | | | | |
| Bid period | Building Committee | | | | | | | █ | █ | | | | | | | |
| Construction | Building Committee | | | | | | | | | █ | █ | █ | █ | █ | | |
| Commissioning | Building Committee | | | | | | | | | | | | | █ | | |
| Track Three: Planning for Operations | | | | | | | | | | | | | | | | |
| Form Operations Committee | City | | | | █ | | | | | | | | | | | |
| Develop resident application guidelines | Operations Committee | | | | █ | █ | | | | | | | | | | |
| Accept resident applications | Operations Committee | | | | | █ | █ | | | | | | | | | |
| Negotiate resident organization agreements | Operations Committee | | | | | | █ | █ | | | | | | | | |
| Programming strategy approval | Operations Committee | | | | | █ | █ | | | | | | | | | |
| Annual programming approval | Operations Committee | | | | | | █ | █ | | | | | | | | |
| Define ticketing system needs | Operations Committee | | | | | | | █ | █ | | | | | | | |
| Develop ticketing system RFP | Operations Committee | | | | | | | | █ | █ | | | | | | |
| Ticketing system in place | Staff | | | | | | | | | █ | █ | | | | | |
| Develop food and beverage RFP | Operations Committee | | | | | | | █ | █ | | | | | | | |
| Develop preferred caterer guidelines | Operations Committee | | | | | | | | █ | █ | | | | | | |
| Select concessionaire (as required) | Staff | | | | | | | | | █ | █ | | | | | |
| Select preferred caterers | Staff | | | | | | | | | | █ | █ | | | | |
| Booking policy | Operations Committee | | | | | | | | | | | █ | █ | | | |
| Rental rate schedule | Operations Committee | | | | | | | | | | | | █ | █ | | |
| Rental agreement form | Staff | | | | | | | | | | | | | █ | █ | |
| Insurance plan | Staff | | | | | | | | | | | | | | █ | |
| Write technical specifications | Staff | | | | | | | | | | | | | | | |
| Maintenance plan | Staff | | | | | | | | | | | | | | | |
| Capital replacement plan | Staff | | | | | | | | | | | | | | | |
| Safety procedures | Staff | | | | | | | | | | | | | | | |
| Train staff | Staff | | | | | | | | | | | | | | | |
| Contractors in place | Staff | | | | | | | | | | | | | | | |

MAIN ST. PAC OPENS



Our next steps

- * Recommendation
 - * Pursue \$15.5MM Bond - subject to private donations/contributions being raised in advance for an endowment fund to sustain operations
 - * Immediate Issue(s)
 - * Alec Shoes – An option is necessary
 - * Bond Request – Develop financing plan
 - * Capital Campaign – Develop infrastructure to raise \$4M to capitalize endowment
 - * Seed capital – to advance fundraising and physical planning



Appendix E

Technical Memo For Parking On School Street Site

Cost Proposal
Addition of Ground Level Parking
School Street Lofts
Nashua, NH

Dated: August 20, 2020

The following presents the components of cost included in the proposed addition of publicly accessible ground level parking to a proposed 146 unit multi family apartment project on a city owned parking lot. By elevating the building above the site, the ground floor would include an area for parking (48-50 spaces), a minimum amount of lobby and amenity space, fire stairs landing at grade from the building above, and mechanical spaces so serve the building with power, water, and other infrastructure. Resident parking would not be permitted in this public facility, but rather would occur in the garage located across High Street.

The incremental costs are outlined below:

Construction Hard Costs

| | |
|------------------------------|---------------|
| General Conditions | \$ 125,000.00 |
| Site Work | \$ 221,600.00 |
| Concrete | \$ 529,000.00 |
| Masonry | \$ 398,700.00 |
| Ceiling and Fireproofing | \$ 238,320.00 |
| Public access controls | \$ 47,800.00 |
| Electric | \$ 202,000.00 |
| Plumbing | \$ 50,000.00 |
| Mechanical | \$ 252,000.00 |
| Elevators (none for parking) | \$ 0.00 |

Subtotal Hard Cost \$2,064,420.00

Soft Costs

| | |
|----------------------|---------------|
| GC Fee and insurance | \$ 309,663.00 |
| Contingency | \$ 178,056.23 |

Budget Price \$2,552,139.23

Developer Fee (0%)

Note that key to the above assumption is that there is no carry cost (interest or equity return) included in the Grand Total. Further, there is no lobby cost or other finished areas that are for the exclusive use of the residents.

Appendix F

Property Cards

0079 00054
 Sheet Lot Unit# Bldg#

0079-00054
 Parcel ID L SCHOOL ST
 Building Location

Nashua

Card: 1 of 1 Total Card Total Parcel
 ASSESSED 107,400 / 107,400

Acct: 39889

IN PROCESS APPRAISAL SUMMARY

| Use Code | Building Val | Yard Items | Land Size | Land Val | Total Val |
|-----------------------|------------------|------------|------------------|----------------|----------------|
| 9030 | 0 | 0 | 29,713.00 | 107,400 | 107,400 |
| 9030 | 0 | 0 | 0.00 | 0 | 0 |
| Building Total | 0 | 0 | 29,713.00 | 107,400 | 107,400 |
| Parcel Total | 0 | 0 | 29,713.00 | 107,400 | 107,400 |
| Source | 0 - Mkt Adj Cost | | | | |

LEGAL DESCRIPTION

Desc: HCRD 2841
 Lot Size
 Total Land
 Land Unit Type

PROPERTY LOCATION

L SCHOOL ST
 NASHUA, NH

OWNERSHIP

NASHUA, CITY OF
 PO BOX 2019
 229 MAIN ST
 NASHUA, NH 03060-0000

Occ Type

PREVIOUS OWNER

NARRATIVE DESCRIPTION

This parcel contains 29713.00000 SF of land mainly classified as MUNICIPAL with a building, having primarily Exterior.

OTHER ASSESSMENTS

| Code | Desc | Amnt | Comm Int Amnt |
|------|------|------|---------------|
| | | | |

PROPERTY FACTORS

| Item Code | Item | Code | % |
|-----------|-----------|-------------|-------|
| Unit 1 | C - ALL | Dis 1 NASH | 100.0 |
| Unit 2 | | Dis 2 | |
| Unit 3 | | Dis 3 | |
| Census | | Zone 1 D1MU | |
| F. Haz | | Zone 2 | |
| Topo | 1 - LEVEL | Zone 3 | |
| Street | 1 - PAVED | | |
| Traffic | | | |
| Exempt | | | |

LAND SECTION

| LUC | LUC Desc | Pt | # Units | Depth | U. Type | L. Type | Ft | Base V. Unit Prc | Adj Prc | NBC | Ft | Mod | Inf 1 | % | Inf 2 | % | Inf 3 | % | Appr | All LUC | % | Spec L.V. | Jurfs | L. Ft. | Assessed/Notes | |
|-------------------|-----------|----|-------------|-------|--------------------|---------|------------------|------------------|---------|-------------------|-------------------------|-----|-------|---|-------|---|-------|--------------------|--------------------|------------|----------------|-----------|------------|----------|----------------|----------------|
| 9030 | MUNICIPAL | 1 | 29,713 | | SF | SITE | 1 | 5.74 | 3.61 | CBD | 0.95 | | | | | | | 107,400 | | 0 | 0 | H | 1 | 107,400 | | |
| Total ACHA | | | 0.68 | | Total SF/SM | | 29,713.00 | | | Parcel LUC | 9030 - MUNICIPAL | | | | | | | P. NBC Desc | CENTRAL BUS | Tot | 107,400 | | Tot | 0 | Tot | 107,400 |

PREVIOUS ASSESSMENTS

| Tx Yr | Cat | Use | Bld Value | Yard Items | Land Size | Land Val | Total Appr | Assessed/Notes | Date |
|-------|------|------|-----------|------------|-----------|----------|------------|-------------------------------|------------|
| 2019 | FV | 9030 | 0 | 0 | 29,713 | 107,400 | 107,400 | 107,400 Year End Roll | 03/04/2020 |
| 2018 | PATR | 9030 | 0 | 0 | 29,713 | 107,400 | 107,400 | 107,400 Corrects for Assessor | 01/09/2019 |
| 2017 | FV | 9030 | 0 | 0 | 29,713 | 94,800 | 94,800 | 94,800 Year End Roll | 11/06/2017 |
| 2016 | FV | 9030 | 0 | 0 | 29,713 | 189,500 | 189,500 | 189,500 Year End Roll | 11/16/2016 |
| 2015 | FV | 9030 | 0 | 0 | 29,713 | 189,500 | 189,500 | 189,500 | 11/06/2015 |
| 2014 | FV | 9030 | 0 | 0 | 29,713 | 189,500 | 189,500 | 189,500 Roll | 10/06/2015 |
| 2013 | FV | 9030 | 0 | 0 | 29,713 | 189,500 | 189,500 | 189,500 Year End | 10/28/2013 |
| 2012 | FV | 9030 | 0 | 0 | 29,713 | 189,500 | 189,500 | 189,500 Year End Roll | 11/09/2012 |

SALES INFORMATION

| Grantor | Legal Ref | Type | Date | Sale Price | TSF | Verif. | NAL | Notes |
|---------|-----------|------|------------|------------|-----|--------|-----|-------|
| | 1802-281 | | 10/12/1966 | 0 | No | | | |

BUILDING PERMITS

| Date | Number | Desc | Amount | Closed | Status | Notes | Last Visit |
|------|--------|------|--------|--------|--------|-------|------------|
| | | | | | | | |

ACTIVITIES

| Date | Result | By |
|------------|-----------|----|
| 05/15/1991 | Meas-List | NP |



Patriot
 PROPERTIES INC.

| |
|------------------|
| User Account |
| GIS Coord 1 |
| 1037778.483232 |
| GIS Coord 1 |
| 94878.6 |
| Insp Date |
| 05/15/1991 |
| PRINT |
| Date Time |
| 8/9/2020 5:13 pm |
| LAST REV |
| Date Time |
| 8/18/17 8:44 am |
| pamelaa |
| USER DEFINED |
| PriorID1a |
| Nashua PID |
| 79-54 |
| Plan # |
| HCRD 2841 |
| PriorID1b |
| PriorID2b |
| PriorID3b |
| L |
| Code Date |
| Code Status |
| Nashua Ward |
| 4 |
| Assessor Map |

Disclaimer: This information is believed to be correct but is subject to change and is not guaranteed

0079 00035
 Sheet Lot Unit# Bldg#

0079-00035 113 WEST PEARL ST
 Parcel ID Building Location

Nashua

Card: 1 of 1 Total Card Total Parcel
 ASSESSED 519,600 / 519,600

Acct 3188

IN PROCESS APPRAISAL SUMMARY

| Use Code | Building Val | Yard Items | Land Size | Land Val | Total Val |
|--|--------------|------------------------------|-----------|------------------------------|-----------|
| 3220 | 388,200 | 0 | 4,819.00 | 131,400 | 519,600 |
| Building Total 388,200 0 4,819.00 131,400 519,600 | | | | | |
| Parcel Total 388,200 0 4,819.00 131,400 519,600 | | | | | |
| Source 0 - Mkt Adj Cost | | Tot Val SF Bld 121.86 | | Tot Val SF Prc 121.86 | |

LEGAL DESCRIPTION

Desc: HCRD 34603
 Lot Size
 Total Land
 Land Unit Type

PREVIOUS ASSESSMENTS

| Tx Yr | Cat | Use | Bld Value | Yard Items | Land Size | Land Val | Total Appr | Assessed/Notes | Date |
|-------|------|------|-----------|------------|-----------|----------|------------|-------------------------------|------------|
| 2019 | FV | 3220 | 388,200 | 0 | 4,819 | 131,400 | 519,600 | 519,600 Year End Roll | 03/04/2020 |
| 2018 | PATR | 3220 | 388,200 | 0 | 4,819 | 131,400 | 519,600 | 519,600 Corrects for Assessor | 01/09/2019 |
| 2017 | FV | 3220 | 444,600 | 0 | 4,819 | 77,900 | 522,500 | 522,500 Year End Roll | 11/06/2017 |
| 2016 | FV | 3220 | 444,600 | 0 | 4,819 | 77,900 | 522,500 | 522,500 Year End Roll | 11/16/2016 |
| 2015 | FV | 3220 | 444,600 | 0 | 4,819 | 77,900 | 522,500 | 522,500 Roll | 11/06/2015 |
| 2014 | FV | 3220 | 444,600 | 0 | 4,819 | 77,900 | 522,500 | 522,500 Year End | 10/28/2013 |
| 2013 | FV | 3220 | 423,700 | 0 | 4,819 | 77,900 | 501,600 | 501,600 Year End Roll | 11/09/2012 |
| 2012 | FV | 3220 | 433,700 | 0 | 4,819 | 77,900 | 511,600 | | |

SALES INFORMATION

| Grantor | Legal Ref | Type | Date | Sale Price | TSF | Verif. | NAL | Notes |
|-----------------------------|-----------|------|------------|------------|-----|--------|-----|--|
| LUERS EYMAN FAMILY REV TRUS | 8949-2700 | W | 03/06/2017 | 0 | No | A | 40 | Seller & buyer list the same mailing address |
| BBCD REAL ESTATE LLC | 8830-1058 | W | 02/16/2016 | 2,667 | No | | T | |
| NAULT, RICHARD M | 7683-2860 | W | 06/01/2006 | 500,000 | No | A | Q | |
| BERGERONS INC | 6837-1474 | W | 07/31/1997 | 250,000 | No | | | |
| | 1011-482 | | 01/01/1900 | 0 | No | | | |

BUILDING PERMITS

| Date | Number | Desc | Amount | Closed | Status | Notes | Last Visit |
|------------|-----------|--------------|---------|------------|--------|-------|------------|
| 02/13/2018 | 201800407 | PLUMBING ON | | 03/06/2018 | C | | |
| 03/10/2017 | 201700402 | ALTERATION - | 42,000 | 10/09/2019 | C | | |
| 12/30/2016 | 201603891 | MISCELLANEO | 15,000 | 10/02/2019 | C | | |
| 08/12/2014 | 201401537 | ALTERATION - | 100,000 | 03/27/2015 | C | | |
| 06/25/2009 | 200900943 | SIGN | | 10/05/2009 | C | | |
| 02/27/2009 | 200801339 | ALTERATION - | 105,000 | 09/13/2010 | C | | |
| 07/31/2007 | 200701272 | MECHANICAL | | 02/11/2008 | C | | |
| 10/30/2006 | 200601955 | ELECTRICAL C | | 02/11/2008 | C | | |
| 10/10/2006 | 200601714 | SIGN | | 06/02/2008 | C | | |
| 10/06/2006 | 200601661 | RENOV-NO ST | 600 | 10/02/2008 | C | | |
| 09/06/2006 | 200601445 | ALTERATION - | 12,500 | 10/02/2008 | C | | |

ACTIVITIES

| Date | Result | By |
|------------|------------|--------------|
| 10/09/2019 | Meas+1Visi | Joey S-KRT |
| 10/02/2019 | AERIAL V N | Lynn Cameron |
| 09/09/2010 | BP Prop In | Doug Dame |
| 02/17/2009 | Extr In on | Doug Dame |
| 05/09/2006 | Extr In on | Doug Dame |
| 04/01/1998 | Interior I | Drew Lemay |
| 11/13/1990 | Meas+List | MH |

PROPERTY LOCATION
 113 WEST PEARL ST
 NASHUA, NH

OWNERSHIP
 BBCD REAL ESTATE, LLC
 26 PINEBROOK RD
 NASHUA, NH 03062-2240

PREVIOUS OWNER

LUERS EYMAN FAMILY REV TRUST
 LUERS, WILLIAM J TRUSTEE &
 EYMAN, CAROL L TRUSTEE
 26 PINEBROOK RD
 NASHUA, NH 03062-2240

NARRATIVE DESCRIPTION

This parcel contains 4819.00000 SF of land mainly classified as STORESHOP with a STORE building built about 1920, having primarily BRICK Exterior and 4,264 Square Feet, with 2 Commercial Units.

OTHER ASSESSMENTS

| Code | Desc | Amt | Comm Int Amt |
|------|------|-----|--------------|
| | | | |

PROPERTY FACTORS

| Item Code | Item | Code | % |
|------------------|--------|------|-------|
| Util 1C - ALL | Dis 1 | NASH | 100.0 |
| Util 2 | Dis 2 | | |
| Util 3 | Dis 3 | | |
| Census | Zone 1 | D1MU | |
| F. Hsg | Zone 2 | | |
| Toppo 1 - LEVEL | Zone 3 | | |
| Street 1 - PAVED | | | |
| Traffic | | | |
| Exemol | | | |

LAND SECTION

| LUC | LUC Desc | FL | # Units | Depth | U. Type | L. Type | FL | Base V. Unit Prc | Adj Prd | NBC | FL | Mod | Inf 1 | % | Inf 2 | % | Inf 3 | % | Appr | Alt LUC | % | Spec L.V. | Juris | L. Ft | Assessed/Notes |
|-------------------|------------|----|-------------|-------|--------------------|---------|-----------------|------------------|-------------------|--------------------------|------|-----|-------|---|-------|---|-------|---|--------------------|------------------------|----------------|------------|----------|------------|----------------|
| 3220 | STORE/SHOP | 1 | 4,819 | | SF | SITE | 1 | 6.74 | 27.27 | CBD | 0.95 | | | | | | | | 131,400 | | 0 | 0 | J | 1 | 131,400 |
| Total ACHA | | | 0.11 | | Total SF/SM | | 4,819.00 | | Parcel LUC | 3220 - STORE/SHOP | | | | | | | | | P. NBC Desc | CENTRAL BUS Tot | 131,400 | Tot | 0 | Tot | 131,400 |

Disclaimer: This information is believed to be correct but is subject to change and is not guaranteed

Bld: 1029 | Seq: 1 | Year: 2020 | Data As Of Date: 06/09/2020 | User: Brownl. | DB: Assess50Nashua



Patriot
 PROPERTIES INC.

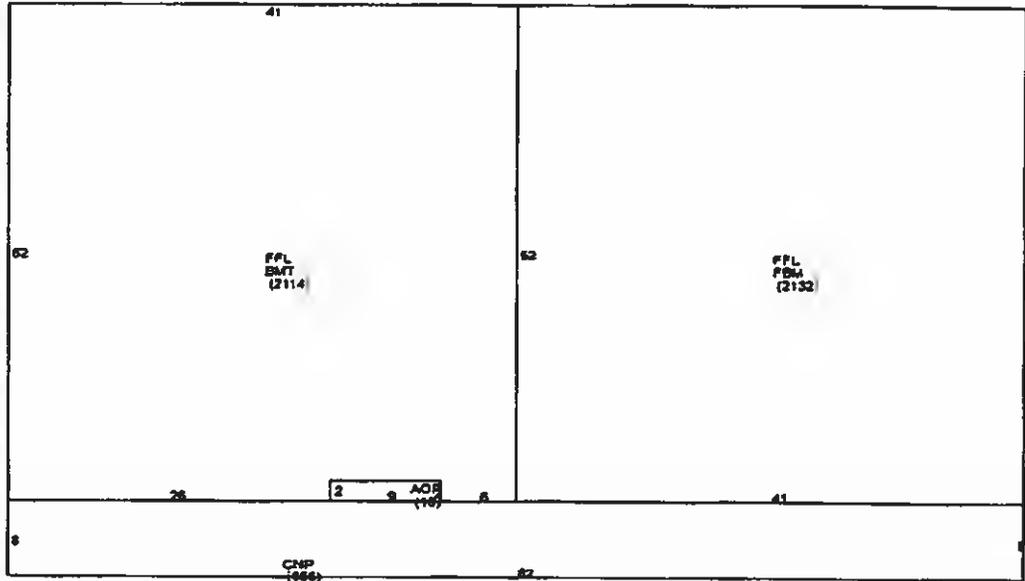
| |
|------------------|
| User Account |
| GIS Coord 1 |
| 1037909.471232 |
| GIS Coord 1 |
| 94770.3 |
| Insp Date |
| 10/09/2019 |
| PRINT |
| Date Time |
| 09/2020 5:12 pm |
| LAST REV |
| Date Time |
| 12/14/12 1:41 am |
| aprc |
| USER DEFINED |
| PriorID1a |
| Nashua PID |
| 79-35 |
| Plan # |
| 34603 |
| PriorID1b |
| PriorID2b |
| PriorID3b |
| 113 |
| Code Data is |
| Code Status |
| Nashua Ward |
| 4 |
| Assessor Map |

Comments

Parcel ID 0079-00035

Insp. for '14BP=\$100k for fit-up work of new Cranes Asian restr seats 50 (total). Chg 85 to '90. Remove bl cooler & capped gas line. DD 3/15. Insp. for '08BP=\$105k for fit-up for Meena's Indian Restr. Add cooler & chg EA '82 to '85. DD 9/10. Insp. for two '08BP=\$13.1k total. Former Nault

| Exterior Information | | Bath Features | | Depreciation | |
|----------------------|-------------------|-------------------|----------|---------------------|--------------|
| Type | 17 - STORE | Full Bath | 0 Rtno | Phys Con | AV - Average |
| Sty Hght | 1 - 1 STORY | Add Full | 0 Rtno | Functional | 22.4 |
| (Liv) Units | 0 / Tot 2 | 3/4 Bath | 0 Rtno | Economic | |
| Found | | Add 3/4 | 0 Rtno | Special | |
| Frame | 3 - CONCRETE | 1/2 Bath | 0 Rtno | Override | |
| P. Wall | 7 - BRICK | Add 1/2 | 0 Rtno | | Total 22.4 |
| Sec Wall | 0 | Other Fx | 0 Rtno | | |
| Roof Str | 4 - FLAT | Other Features | | General Information | |
| Roof Cvr | 11 - MEMBRANE | Kitchens | 0 Rtno | Grade | C - AVERAGE |
| Color | | Add Kit | 0 Rtno | Year Bilt | 1920 |
| View | | Fireplaces | 0 Rtno | ER Yr | 1990 |
| Shape | | WS Flues | 0 Rtno | AR LUC | |
| Bld Name | | | | Juris | |
| | | | | Con Mod | |
| Interior Information | | Condo Information | | | |
| Avg Ht / Ft | | Location | | | |
| P. Int Wall | 5 - MINIMUM | Tot Units | | | |
| Sec Int Wall | | Floor | | | |
| Partition | T - TYPICAL | % Own | | | |
| P. Floor | 4 - CARPET | Name | | | |
| Sec Floor | 5 - LINOVINYL 50% | Calc Ladder | | | |
| Bmt Floors | | Base Rate | 84.00 | Depr % | 22.4 |
| Sub Floors | | Size Adj | 0.98452 | Depr | 111.736 |
| Bmt Garage | 0 | Con Adj | 1.03721 | Depr'd Total | 387.065 |
| Electric | 3 - TYPICAL | Adj Pro | \$ 85.78 | Juris Ft | 1.0000 |
| Insulation | 2 - TYPICAL | Grade Fl | 1.00000 | Spec. Features | \$ 1.100 |
| Int Vs Ext | | Other Feat | \$ 6.666 | Final Total | \$ 388.200 |
| Heat Fuel | 2 - GAS | NBH Mod | 1.0000 | Assmnt Fl | 1.0000 |
| Heat | 1 - FORCED H/A | LUC Fl | 1.0000 | Assessed Val | \$ 388,200 |
| # Heat Sys | 0 | Ad Tot exch | 498.821 | Total \$/SF | \$ 91.04 |
| Heated % | 100 | Undeor \$/SF | 85.78000 | | |
| AC % | 100 | Undeor % | | | |
| Corr HW % | | Com Wall % | | | |
| Sprink % | 100 | | | | |



| Code | Desc | A | Y/S | Qty | Size | Qual | Con | Year | Unit Prc | D/S | Depr % | LUC | FL | NBC | Fl | Juris | Fl | Appr Val | Assessed |
|--------------------------------------|--------|---|-----|-----|-------|------|-----|------|----------|----------------------|--------|-----|----|-----|----|-------|----|----------|----------|
| CLR1 | COOLER | D | S | 1 | 60.00 | A | AV | 2009 | 20.00 | T | 9 | | 1 | | 1 | | 1 | 1,100 | 1,100 |
| Special Features / Yard Items | | | | | | | | | | | | | | | | | | | |
| Building Totals | | | | | | | | | | Yard Item Appr | | | | | | | | | |
| Parcel Totals | | | | | | | | | | Special Feature Appr | | | | | | | | | |

| Sub Areas | | Net Area | Gross A. | F. Area | Sz Adj A. | Rate AV | Undepr Val |
|-----------------|--------------|----------|----------|---------|-----------|---------|------------|
| FFL | FIRST FLR | 4,248 | 4,248 | 4,248 | 4,248 | 85.78 | 364,222 |
| AOF | OFFICE AVG | 18 | 18 | 18 | 18 | 141.56 | 2,548 |
| BMT | BASEMENT | 2,114 | 2,114 | 0 | 0 | 21.44 | 45,324 |
| CNP | CANOPY | 656 | 656 | 0 | 0 | 24.43 | 16,026 |
| FBM | FINISHED BMT | 2,132 | 2,132 | 0 | 0 | 30.02 | 64,003 |
| Building Totals | | 9,166 | 9,166 | 4,264 | 4,264 | | 492,123 |
| Parcel Totals | | 9,166 | 9,166 | 4,264 | 4,264 | | 492,123 |

| Res Breakdown | | | |
|---------------|----------|-------|-------|
| Floor | No. Unit | Rooms | Bdrms |
| U | 0 | 0 | 0 |
| Bld Total | | | |
| 0 | | 0 | |
| Prcl Total | | | |
| 0 | | 0 | |



Disclaimer: This information is believed to be correct but is subject to change and is not guaranteed

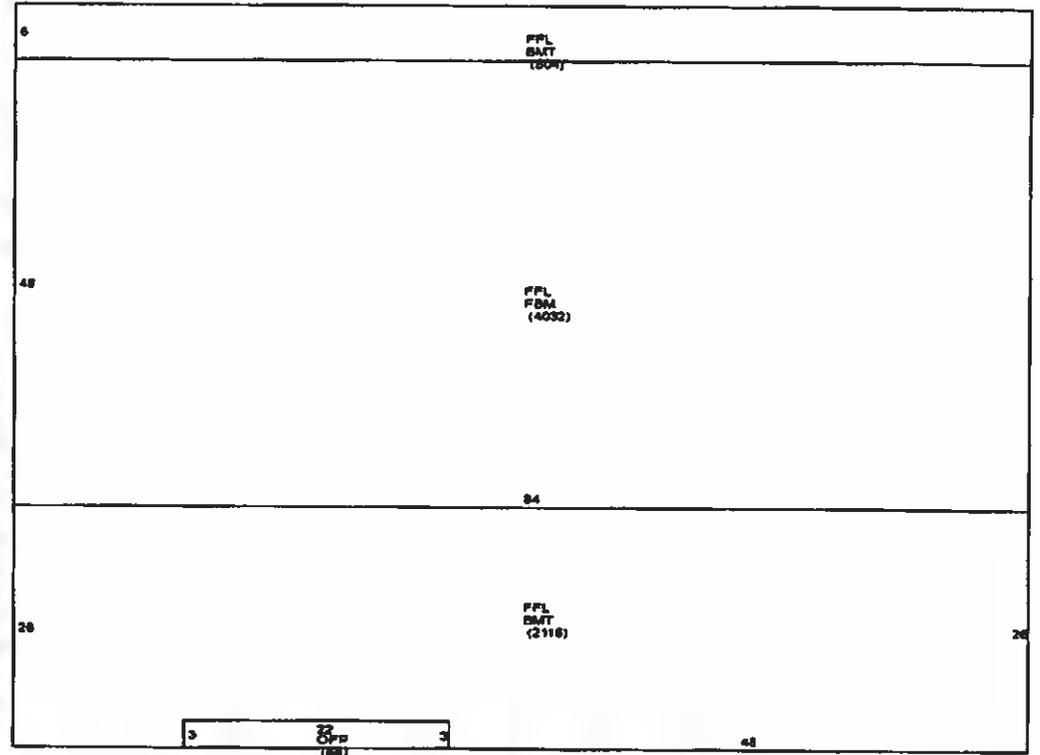
Insp. for '08BP-\$400k for conv. of retail to office. Relist & meas. Chg LUC 3220 to 3400; chg EA '80 to '95; Est FBM remove FuncObs. DD 209. REMEASURED BLDG 7/96 20 EcoObsol removed 800.20 added to Func. 1000. 10/19 DBA NASHUA MENTAL HEALTH

| Exterior Information | | Bath Features | | Depreciation | |
|----------------------|-------------------|-------------------|----------|---------------------|---------------------|
| Type | 18 - OFFICE BULD | Full Bath | 0 Rng | Phys Con | AV - Average |
| Sty Hght | 1 - 1 STORY | Add Full | 0 Rng | Functional | |
| (Lv) Units | 1 Tot 1 | 3/4 Bath | 0 Rng | Economic | |
| Found | | Add 3/4 | 0 Rng | Special | |
| Frame | 3 - CONCRETE | 1/2 Bath | 0 Rng | Override | |
| P. Wall | 7 - BRICK | Add 1/2 | 0 Rng | | |
| Sec Wall | | Other Fx | 0 Rng | | Total 18.4 |
| Roof Str | 4 - FLAT | Other Features | | General Information | |
| Roof Cvr | 11 - MEMBRANE | Kitchens | 0 Rng | Grade | C - AVERAGE |
| Color | | Add Kit | 0 Rng | Year Blt | 1920 EffYr 1995 |
| View | | Fireplaces | 0 Rng | Alt LUC | |
| Shape | | WS Flues | 0 Rng | Juris | |
| Bld Name | | Condo Information | | Con Mod | |
| Interior Information | | Location | | | |
| Avg Ht / Ft | | Tot Units | | | |
| P. Int Wall | 1 - DRYWALL | Floor | | | |
| Sec Int Wall | | % Own | | | |
| Partition | 7 - TYPICAL | Name | | | |
| P. Floor | 4 - CARPET | Calc Ladder | | | |
| Sec Floor | 5 - LINOVINYL 10% | Base Rate | 105.00 | Depr % | 18.4 |
| Bmt Floors | | Size Adj | 0.90029 | Depr | 155.658 |
| Sub Floors | | Con Adj | 1.01319 | Depr'd Total | 690.312 |
| Bmt Garage | 0 | Adj Prc | \$ 95.78 | Juris Fl. | 1.0000 |
| Electric | 3 - TYPICAL | Grade Fl. | 1.00000 | Spec Features | \$ 21,600 |
| Insulation | 2 - TYPICAL | Other Feat | \$ 8,491 | Final Total | \$ 711,900 |
| Int Vs Ext | | NRH Mod | 1.0000 | Assmnt Fl. | 1.0000 |
| Heat Fuel | 2 - GAS | NBC Infl | 1.0000 | Assessed Val | \$ 711,900 |
| Heat | 1 - FORCED H/A | LUC Fl. | 1.0000 | Total \$/SF | \$ 106.99 |
| # Heat Sys | 0 | Adj Tot | 845,970 | Undeor \$/SF | 95,78000 |
| Heated % | 100 | Sq HW % | | Corr Wall % | 24 |
| AC % | 100 | Chf Vac % | | Sprink % | 100 |

| Sub Areas | | Code | Desc | Net Area | Gross A. | F. Area | Sz Adj A. | Rate AV | Undepr Val |
|-----------------|--------------|------|------|----------|----------|---------|-----------|---------|------------|
| FFL | FIRST FLR | | | 6,654 | 6,654 | 6,654 | 6,654 | 95.78 | 637,320 |
| OFF | OPEN FRM PRC | | | 66 | 66 | 0 | 0 | 33.86 | 2,235 |
| BMT | BASEMENT | | | 2,622 | 2,622 | 0 | 0 | 23.94 | 62,771 |
| FBM | FINISHED BMT | | | 4,032 | 4,032 | 0 | 0 | 33.52 | 135,153 |
| Building Totals | | | | 13,374 | 13,374 | 6,654 | 6,654 | | 837,478 |
| Parcel Totals | | | | 13,374 | 13,374 | 6,654 | 6,654 | | 837,478 |

| Res Breakdown | | | | |
|---------------|----------|-------|-------|---|
| Floor | No. Unit | Rooms | Bdrms | |
| U | 1 | 0 | 0 | |
| Bld Total | | 1 | 0 | 0 |
| Prcl Total | | 1 | 0 | 0 |

| Special Features / Yard Items | | Code | Desc | A | V/S | Qty | Size | Qual | Con | Year | Unit Prc | D/S | Depr % | LUC | Fl | NBC | Fl | Juris | Fl | Appr Val | Assessed |
|-------------------------------|--------------|----------------|------|---|-----|-----|----------|------|-----|------|----------|-----|--------|-----|----|-----|----|-------|----|----------|----------|
| SPR1 | SPRINKLERS-W | D | S | | | 1 | 13580.00 | A | AV | 1972 | 3.40 | T | 50 | | 1 | | 1 | | 1 | 21,600 | 21,600 |
| Building Totals | | Yard Item Appr | | | | | | | | | | | | | | | | | | 21,600 | 21,600 |
| Parcel Totals | | Yard Item Appr | | | | | | | | | | | | | | | | | | 21,600 | 21,600 |



Disclaimer: This information is believed to be correct but is subject to change and is not guaranteed

0081 00098
Sheet Lot Unit# Bldg#

0081-00098 92-921/2 WEST PEARL ST
Parcel ID Building Location

Nashua Acct 8118 Card: 1 of 1 Total Card Total Parcel
ASSESSED 230,100 / 230,100

PROPERTY LOCATION
92-921/2 WEST PEARL ST
NASHUA, NH

IN PROCESS APPRAISAL SUMMARY

| Use Code | Building Val | Yard Items | Land Size | Land Val | Total Val |
|-----------------------|------------------|----------------|-----------|-----------------|-----------|
| 3220 | 161,000 | 0 | 2,533.00 | 69,100 | 230,100 |
| Building Total | 161,000 | 0 | 2,533.00 | 69,100 | 230,100 |
| Parcel Total | 161,000 | 0 | 2,533.00 | 69,100 | 230,100 |
| Source | 0 - Mid Adj Cost | Tot Val SF/Bld | 91.64 | Tot Val SF/Prcl | 91.64 |

LEGAL DESCRIPTION
Desc:

Lot Size
Total Land
Land Unit Type

OWNERSHIP
CROTEAU, RICHARD &
CLAIRE CROTEAU %RB CROTEAU PHT
507 E JENKINS CT
HERNANDO, FL 34442-0000

PREVIOUS ASSESSMENTS

| Tx Yr | Cat | Use | Bld Value | Yard Items | Land Size | Land Val | Total Appr | Assessed | Notes | Date |
|-------|------|------|-----------|------------|-----------|----------|------------|----------|-----------------------|------------|
| 2019 | FV | 3220 | 161,000 | 0 | 2,533 | 69,100 | 230,100 | 230,100 | Year End Roll | 03/04/2020 |
| 2018 | PATR | 3220 | 161,000 | 0 | 2,533 | 69,100 | 230,100 | 230,100 | Corrects for Assessor | 01/09/2019 |
| 2017 | FV | 3220 | 201,000 | 0 | 2,533 | 40,900 | 241,900 | 241,900 | Year End Roll | 11/06/2017 |
| 2016 | FV | 3220 | 201,000 | 0 | 2,533 | 40,900 | 241,900 | 241,900 | Year End Roll | 11/16/2016 |
| 2015 | FV | 3220 | 201,000 | 0 | 2,533 | 40,900 | 241,900 | 241,900 | Year End Roll | 11/06/2015 |
| 2014 | FV | 3220 | 201,000 | 0 | 2,533 | 40,900 | 241,900 | 241,900 | Roll | 10/06/2015 |
| 2013 | FV | 3220 | 201,000 | 0 | 2,533 | 40,900 | 241,900 | 241,900 | Year End | 10/28/2013 |
| 2012 | FV | 3220 | 223,300 | 0 | 2,533 | 40,900 | 264,200 | 264,200 | Year End Roll | 11/09/2012 |

PREVIOUS OWNER
COUTOUMAS, RICHARD G & MARY
-0000

SALES INFORMATION

| Grantor | Legal Ref | Type | Date | Sale Price | TSF | Verif. | NAL | Notes |
|----------------------------|-----------|------|------------|------------|-----|--------|-----|-----------------------------------|
| COUTOUMAS, RICHARD G & MAR | 5790-1730 | W | 02/21/1997 | 142,500 | No | | | JT S.Q. STATES OWNER FINANCED FOR |
| | 1455-397 | P | 01/30/1956 | 0 | No | | | PW 1125-P |

NARRATIVE DESCRIPTION
This parcel contains 2533.00000 SF of land mainly classified as STORE/SHOP with a STORES/APT C building built about 1920, having primarily TEX 111 Exterior and 2,511 Square Feet, with 1 Residential Unit, and 2 Bdrms.

OTHER ASSESSMENTS

| Code | Desc | Amnt | Comm Int Amnt |
|------|------|------|---------------|
| | | | |

PROPERTY FACTORS

| Item | Code | Item | Code | % |
|---------|-----------|--------|------|-------|
| Util 1 | C - ALL | Dis 1 | NASH | 100.0 |
| Util 2 | | Dis 2 | | |
| Util 3 | | Dis 3 | | |
| Census | | Zone 1 | D1MU | |
| F. Haz | | Zone 2 | | |
| Topo | 1 - LEVEL | Zone 3 | | |
| Street | 1 - PAVED | | | |
| Traffic | | | | |
| Exempt | | | | |

LAND SECTION

| LUC | LUC Desc | Ft | # Units | Depth | U. Type | L. Type | Ft | Base V. | Unit Prc | Adj Prd | NBC | Fl | Mod | Inf 1 | % | Inf 2 | % | Inf 3 | % | Appr | AR LUC | % | Spec L.V. | Juris | L. Fl. | Assessed | Notes |
|-------------------|------------|----|---------|-------------------|---------|---------|----------|-------------------|----------|-------------------|--------------------|------|-------------|------------|---|--------|------------|-------|---|------------|--------|--------|-----------|-------|--------|----------|-------|
| 3220 | STORE/SHOP | 1 | 2,533 | | SF | SITE | 1 | | 5.74 | 27.28 | CBD | 0.95 | | | | | | | | 69,100 | | 0 | 0 | J | 1 | 69,100 | SITE |
| Total ACHA | | | 0.06 | Total SFSM | | | 2,533.00 | Parcel LUC | | 3220 - STORE/SHOP | P. NBC Desc | | CENTRAL BUS | Tot | | 69,100 | Tot | | 0 | Tot | | 69,100 | | | | | |

Disclaimer: This information is believed to be correct but is subject to change and is not guaranteed

Bld: 3336 | Seq: 1 | Year: 2020 | Data As Of Date: 08/09/2020 | User: BrownL | DB: Assess50Nashua



Patriot
PROPERTIES INC.

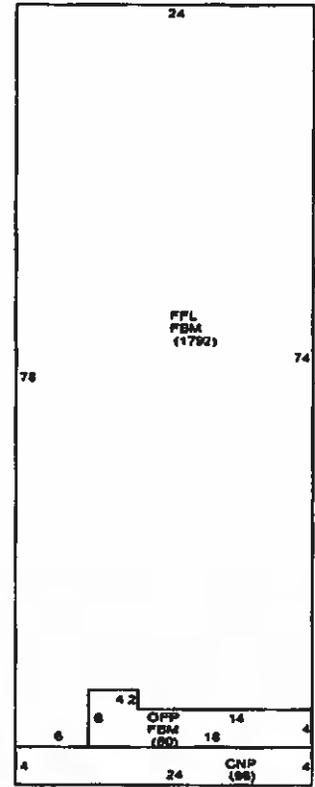
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GIS Coord 1
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PRINT
Date Time
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LAST REV
Date Time
12/14/12 1:49 pm
apro
USER DEFINED
PriorID1a
Nashua PID
81-88
Plan #
PriorID1b
PriorID2b
PriorID3b
92-921/2
Code Date
Code Status
Nashua Ward
4
Assessor Map

Comments

Parcel ID 0081-00104

Closed 158P=\$2,500 minimal fit-up cost for W&B's Barber Shop, now located in former hobby shop. Basement was and is finished. Chg Physical condition from Fair to Avg. DD 4/16. ADJ SF-CALC PER PA 8/15 ND

| Exterior Information | | Bath Features | | Depreciation | |
|----------------------|----------------|-------------------|---|---------------------|------|
| Type | 17 - STORE | Full Bath | 0 | Rtng | |
| Story Hght | 1 - 1 STORY | Add Full | 0 | Rtng | |
| (LH) Units | 1 | 3/4 Bath | 0 | Rtng | |
| Found | | Add 3/4 | 0 | Rtng | |
| Frame | 3 - CONCRETE | 1/2 Bath | 0 | Rtng | |
| P. Wall | 7 - BRICK | Add 1/2 | 0 | Rtng | |
| Sec Wall | | Other Fct | 0 | Rtng | |
| Roof Str | 4 - FLAT | Total | | 32 | |
| Roof Cvr | 4 - TAR+GRAVEL | Other Features | | General Information | |
| Color | | Kitchens | 0 | Rtng | |
| View | | Add Kit | 0 | Rtng | |
| Shape | | Fireplaces | 0 | Rtng | |
| Bld Name | | WS Flues | 0 | Rtng | |
| Interior Information | | Condo Information | | Grade | |
| Avg Ht / Ft | | Location | | C - AVERAGE | |
| P. Int Wall | 1 - DRYWALL | Tot Units | | Year Blt | 1920 |
| Sec Int Wall | | Floor | | EFYr | 1977 |
| Partition | T - TYPICAL | % Own | | Alt LUC | |
| P. Floor | 4 - CARPET | Name | | Juris | |
| Sec Floor | | Calc Ladder | | Con Mod | |



| Code | Desc | Net Area | Gross A. | F. Area | Sz Adj A. | Rate AV | Undepr Val |
|------------------------|--------------|--------------|--------------|--------------|--------------|---------|----------------|
| FFL | FIRST FLR | 1,792 | 1,792 | 1,792 | 1,792 | 119.96 | 214,968 |
| CNP | CANOPY | 96 | 96 | 0 | 0 | 31.32 | 3,007 |
| FBM | FINISHED BMT | 1,872 | 1,872 | 0 | 0 | 41.99 | 78,605 |
| Building Totals | | 3,840 | 3,840 | 1,792 | 1,792 | | 299,131 |
| Parcel Totals | | 3,840 | 3,840 | 1,792 | 1,792 | | 299,131 |

Sub Areas

Res Breakdown

| Code | Desc | Net Area | Gross A. | F. Area | Sz Adj A. | Rate AV | Undepr Val | Floor | No. Unit | Rooms | Bdrms |
|-------------------|--------------|----------|----------|---------|-----------|---------|------------|-------|----------|----------|----------|
| FFL | FIRST FLR | 1,792 | 1,792 | 1,792 | 1,792 | 119.96 | 214,968 | | | | |
| CNP | CANOPY | 96 | 96 | 0 | 0 | 31.32 | 3,007 | U | 1 | 0 | 0 |
| FBM | FINISHED BMT | 1,872 | 1,872 | 0 | 0 | 41.99 | 78,605 | | | | |
| Bld Total | | | | | | | | | 1 | 0 | 0 |
| Prcl Total | | | | | | | | | 1 | 0 | 0 |

Special Features / Yard Items

| Code | Desc | A | Y/S | Qty | Size | Qual | Con | Year | Unit Prc | D/S | Depr % | LUC | Fl | NBC | Fl | Juris | Fl | Appr Val | Assessed | | |
|------------------------|--------------|---|-----|-----|---------|------|-----|------|----------|-----|--------|-----|----|-----|----|-------|----|----------|----------|-------|-------|
| SPR1 | SPRINKLERS-W | D | S | 1 | 3664.00 | A | AV | 1972 | 3.40 | T | 50 | | 1 | 1 | 1 | | | 8,900 | 8,900 | | |
| Building Totals | | | | | | | | | | | | | | | | | | | 8,900 | 8,900 | 8,900 |
| Parcel Totals | | | | | | | | | | | | | | | | | | | 8,900 | 8,900 | 8,900 |



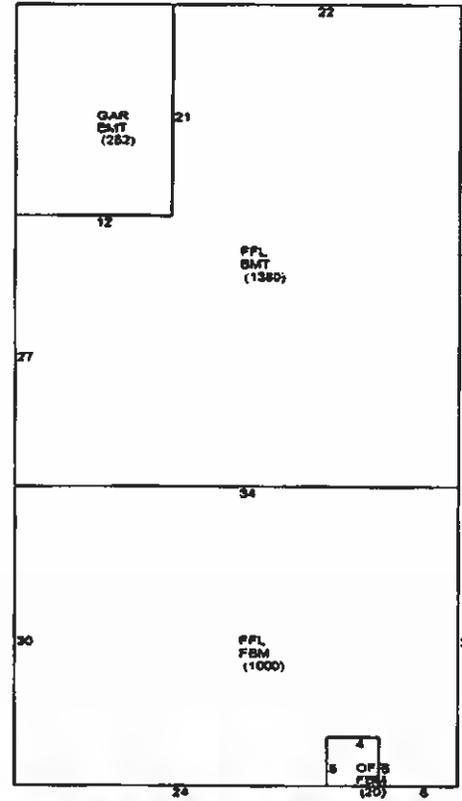
Disclaimer: This information is believed to be correct but is subject to change and is not guaranteed

Comments

Parcel ID 0081-00095

.05 EcoObsol removed 800 GAGE FLORIST

| Exterior Information | | Bath Features | | Depreciation | |
|-----------------------------|------------------|--------------------------|-----------|----------------------------|--------------------|
| Type | 17 - STORE | Full Bath | 0 Rng | Phys Con | FR - Fair 38.4 |
| Sty Hght | 1 - 1 STORY | Add Full | 0 Rng | Funcional | |
| (Liv) Units | 1 Tot 1 | 3/4 Bath | 0 Rng | Economic | |
| Found | | Add 3/4 | 0 Rng | Special | |
| Frame | 3 - CONCRETE | 1/2 Bath | 0 Rng | Override | |
| P. Wall | 7 - BRICK | Add 1/2 | 0 Rng | Total | 38.4 |
| Sec Wall | 21 - CONC BLOC 0 | Other Fix | 0 Rng | General Information | |
| Roof Str | 4 - FLAT | Other Features | | Grade | C - AVERAGE |
| Roof Cvr | 4 - TAR-GRAVEL | Kitchens | 0 Rng | Year Btl | 1900 Est Yr 1974 |
| Color | | Add Kit | 0 Rng | ALLUC | |
| View | | Fireplaces | 0 Rng | Juris | |
| Shape | | WS Flues | 0 Rng | Con Mod | |
| Bld Name | | Condo Information | | | |
| Interior Information | | Location | | | |
| Avg Ht / Ft | | Tot Units | | | |
| P. Int Wall | 1 - DRYWALL | Floor | | | |
| Sec Int Wall | | % Cym | | | |
| Partition | 7 - TYPICAL | Name | | | |
| P. Floor | 4 - CARPET | Calc Ladder | | | |
| Sec Floor | 5 - LINOVINYL | Base Rate | 84.00 | Depr % | 38.4 |
| Bmt Floors | | Size Adj | 1.17017 | Depr | 133.587 |
| Sub Floors | | Con Adj | 1.09180 | Depr'd Total | 214.297 |
| Bmt Garage | 0 | Adj Prc | \$ 107.32 | Juris Fl | 1.0000 |
| Electric | 3 - TYPICAL | Grade Fl | 1.00000 | Spec Features | \$ 0 |
| Insulation | 2 - TYPICAL | Other Feat | \$ 0 | Final Total | \$ 214.300 |
| Int Vs Ext | | NBH Mod | 1.0000 | Assmnt Fl | 1.0000 |
| Heat Fuel | 2 - GAS | NBC Int | 1.0000 | Assessed Val | \$ 214,300 |
| Heat | 3 - FORCED HW | LUC Fl | 1.0000 | Total \$/SF | \$ 90.04 |
| # Heat Sys | 0 | Adj Tot Price | 347,884 | Under \$/SF | 107.32000 |
| Heated % | 100 | Sol HW % | | Com Wall % | |
| AC % | | Ctrl Vac % | | Sprink % | |



| Code | Desc | Net Area | Gross A. | F. Area | Sz Adj A. | Rate AV | Undepr Val |
|------------------------|--------------|----------|----------|---------|-----------|---------|------------|
| FFL | FIRST FLR | 2,380 | 2,380 | 2,380 | 2,390 | 107.32 | 255,422 |
| GAR | GARAGE | 252 | 252 | 0 | 0 | 37.56 | 9,465 |
| OFF | OPEN FRM PRC | 20 | 20 | 0 | 0 | 45.00 | 900 |
| BMT | BASEMENT | 1,632 | 1,632 | 0 | 0 | 26.83 | 43,787 |
| FBM | FINISHED BMT | 1,020 | 1,020 | 0 | 0 | 37.56 | 38,311 |
| Building Totals | | 5,304 | 5,304 | 2,380 | 2,380 | | 347,884 |
| Parcel Totals | | 5,304 | 5,304 | 2,380 | 2,380 | | 347,884 |

Sub Areas

| Code | Desc | Net Area | Gross A. | F. Area | Sz Adj A. | Rate AV | Undepr Val |
|------------------------|--------------|----------|----------|---------|-----------|---------|------------|
| FFL | FIRST FLR | 2,380 | 2,380 | 2,380 | 2,390 | 107.32 | 255,422 |
| GAR | GARAGE | 252 | 252 | 0 | 0 | 37.56 | 9,465 |
| OFF | OPEN FRM PRC | 20 | 20 | 0 | 0 | 45.00 | 900 |
| BMT | BASEMENT | 1,632 | 1,632 | 0 | 0 | 26.83 | 43,787 |
| FBM | FINISHED BMT | 1,020 | 1,020 | 0 | 0 | 37.56 | 38,311 |
| Building Totals | | 5,304 | 5,304 | 2,380 | 2,380 | | 347,884 |
| Parcel Totals | | 5,304 | 5,304 | 2,380 | 2,380 | | 347,884 |

Res Breakdown

| Floor | No. Unit | Rooms | Bdrms |
|-------------------|----------|-------|-------|
| U | 1 | 0 | 0 |
| Bld Total | 1 | 0 | 0 |
| Prcl Total | 1 | 0 | 0 |

Special Features / Yard Items

| Code | Desc | A | Y/S | Qty | Size | Qual | Con | Year | Unit Prc | D/S | Depr % | LUC | Ft | NBC | Ft | Juris | Ft | Appr Val | Assessed |
|------------------------|------|---|-----|-----|------|------|-----|------|----------|-----|--------|-----|----|-----|----|-------|----|----------|----------|
| Building Totals | | | | | | | | | | | | | | | | | | | |
| Parcel Totals | | | | | | | | | | | | | | | | | | | |

Disclaimer: This information is believed to be correct but is subject to change and is not guaranteed

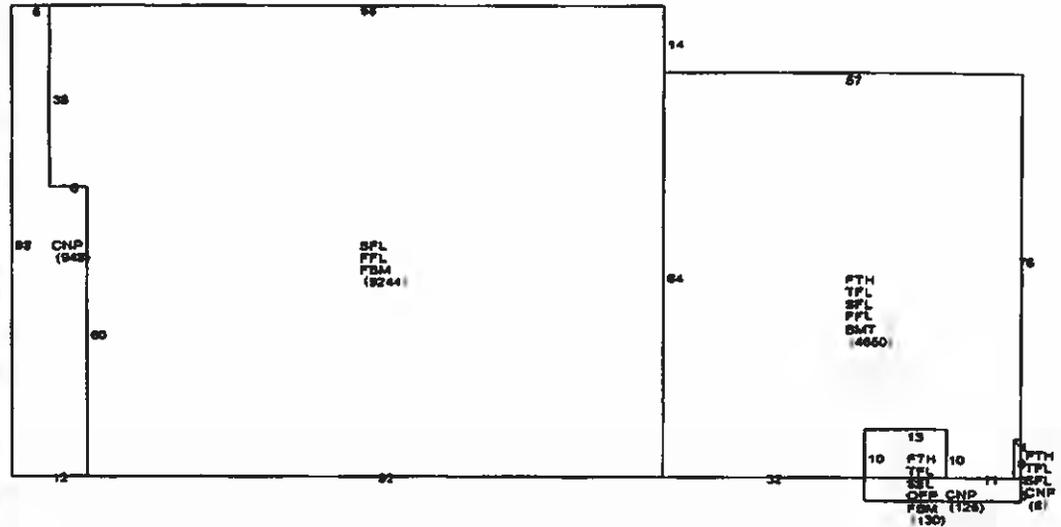
Comments

Parcel ID 0081-00003

See internal notes for exemption GR18 -- ADJ SF PER CAL D AREA BY PA LC18--At owner's request, corrected apt & room ct., & adj s.t. of SPR1 & AC. DD 12/10. CORRECT LUC PER RG 7/10 MD-- CHNG ROOF COVER TO MEMB 2/10 MD-- 4/7/09. Corr Sketch from LLV to FBM; Adjusted Func=Layout. RG-- INCL LOTS

| Exterior Information | | Bath Features | | Depreciation | |
|----------------------|------------------|-------------------|-----------|----------------|----------------|
| Type | 80- STORES/APT C | Full Bath | 0 Rtn | Phys Con | AV - Average |
| Sty Hght | 4- 4 STORIES | Add Full | 0 Rtn | Functional | |
| (LH) Units | 10 Tot 10 | 3/4 Bath | 0 Rtn | Economic | |
| Found | 3- BRK/STONE | Add 3/4 | 0 Rtn | Special | |
| Frame | 3- CONCRETE | 1/2 Bath | 0 Rtn | Override | |
| P. Wall | 7- BRICK | Add 1/2 | 0 Rtn | | |
| Sec Wall | 0 | Other Fx | 0 Rtn | | Total 30 |
| Roof Str | 4- FLAT | Other Features | | Grade | C+- AVG. (+) |
| Roof Cvr | 11- MEMBRANE | Kitchens | 0 Rtn | Year Bt | 1898 Etyr 1988 |
| Color | BRICK | Add Kt | 0 Rtn | All LUC | |
| View | | Fireplaces | 0 Rtn | Juris | |
| Shape | | WS Flues | 0 Rtn | Con Mod | |
| Bld Name | | Condo Information | | | |
| Interior Information | | Location | | | |
| Avg Ht / Ft | | Tot Units | | | |
| P. Int Wall | 1- DRYWALL | Floor | | | |
| Sec Int Wall | 2- PLASTER | % Own | | | |
| Partition | 1- TYPICAL | Name | | | |
| P. Floor | 5- LINO/VINYL | Calc Ladder | | | |
| Sec Floor | 4- CARPET | Base Rate | 94.00 | Depr % | 30 |
| Bmt Floors | | Slnt Adj | 0.53200 | Depr | 689,954 |
| Sub Floors | | Con Adj | 0.98262 | Depr'd Total | 1,609,892 |
| Bmt Garage | 0 | Adj Prc | \$ 49.14 | Juris Pt. | 1.0000 |
| Electric | 3- TYPICAL | Grade Fl. | 1.10000 | Spec. Features | \$ 158,900 |
| Insulation | 2- TYPICAL | Other Feat | \$ 0 | Final Total | \$ 1,768,800 |
| Int Vs Ext | | HBH Mod | 1.0000 | Assmnt Fl. | 1.0000 |
| Heat Fuel | 2- GAS | NBC Inf | 1.0000 | Assessed Val | \$ 1,768,800 |
| Heat | 1- FORCED H/A | LUC Fl. | 1.0000 | Total \$/SF | \$ 47.17 |
| # Heat Sys | 0 | Adj Tot (incl) | 2,299,845 | Undepr \$/SF | 54.05400 |
| Heated % | 100 | Sol HW % | | Undepr % | |
| AC % | | Chl Vac % | | Com Wall % | |
| | | Sprink % | | | |

| Sub Areas (7 of 8) | | Code | Desc | Net Area | Gross A. | F. Area | Sz Adj A. | Rate AV | Undepr Val |
|--------------------|--------------|--------|--------|----------|----------|---------|-----------|---------|------------|
| SFL | SECOND FLR | 14.032 | 14.032 | 14.032 | 14.032 | 49.13 | 689,532 | | |
| FTH | FOURTH FLR | 4.788 | 4.788 | 4.788 | 4.788 | 49.14 | 682,751 | | |
| TFL | THIRD FLR | 4.788 | 4.788 | 4.788 | 4.788 | 49.12 | 235,282 | | |
| OFF | OPEN FRM PRC | 130 | 130 | 0 | 0 | 28.27 | 3,675 | | |
| BMT | BASEMENT | 4.650 | 4.650 | 0 | 0 | 12.28 | 57,102 | | |
| CNP | CANOPY | 1.081 | 1.081 | 0 | 0 | 23.97 | 25,912 | | |
| Building Totals | | 52,737 | 52,737 | 37,502 | 37,502 | | 2,090,769 | | |
| Parcel Totals | | 52,737 | 52,737 | 37,502 | 37,502 | | 2,090,769 | | |



| Special Features / Yard Items | | Code | Desc | A | N/S | Qty | Size | Qual | Con | Year | Unit Prc | D/S | Depr % | LUC | Fl. | NBC | Fl. | Juris | Fl. | Appr Val | Assessed |
|-------------------------------|--------------|----------------|------|---|-----|-------|----------|----------------------|-----|------|-----------|---------|--------|---------|-----|---------|-----|-------|-----|----------|----------|
| A/C | AIR CONDITIO | D | S | 1 | | 1 | 18488.00 | A | AV | 1971 | 3.50 | T | 40 | | 1 | | 1 | | 1 | 38,800 | 38,800 |
| ELE4 | ELEV PASS HY | D | S | 1 | | 1 | 3.00 | A | AV | 1971 | 45,500.00 | T | 40 | | 1 | | 1 | | 1 | 68,300 | 68,300 |
| PAV1 | PAVING-ASPHA | D | Y | 1 | | 1 | 792.00 | A | AV | 1992 | 3.00 | T | 50 | | 1 | | 1 | | 1 | 1,800 | 1,800 |
| SPR1 | SPRINKLERS-W | D | S | 1 | | 1 | 37300.00 | A | AV | 1971 | 3.40 | T | 50 | | 1 | | 1 | | 1 | 51,800 | 51,800 |
| Building Totals | | Yard Item Appr | | | | 1,800 | | Special Feature Appr | | | | 158,900 | | 160,700 | | 160,700 | | | | | |
| Parcel Totals | | Yard Item Appr | | | | 1,800 | | Special Feature Appr | | | | 158,900 | | 160,700 | | 160,700 | | | | | |

| Res Breakdown | | | | |
|---------------|----------|-------|-------|---|
| Floor | No. Unit | Rooms | Bdrms | |
| U | 1 | 1 | 0 | |
| U | 8 | 3 | 1 | |
| U | 1 | 4 | 2 | |
| Bid Total | | 10 | 8 | 3 |
| Prcl Total | | 10 | 8 | 3 |



Disclaimer: This information is believed to be correct but is subject to change and is not guaranteed

Appendix G

District Properties, Acreages & Established Values

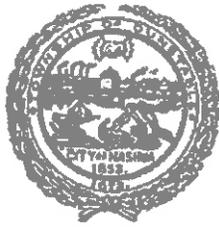
| | Parcel ID | Location | Acres | Total Value | Notes |
|---|-----------|---------------|-------|-------------|--------------------|
| 1 | 79-54 | School Street | 0.68 | \$107,400 | Public Parking Lot |
| 2 | 79-35 | West Pearl | 0.11 | \$519,600 | |
| 3 | 81-16 | West Pearl | 0.16 | \$889,400 | Office Building |
| 4 | 81-81 | Elm Street | 0.09 | \$397,400 | |
| 5 | 81-98 | West Pearl | 0.06 | \$230,100 | |
| 6 | 81-104 | West Pearl | 0.04 | \$263,100 | |
| 7 | 81-95 | West Pearl | 0.06 | \$285,100 | |
| 8 | 81-3 | West Pearl | 0.36 | \$2,058,800 | City Owned |
| 9 | 79-129 | West Pearl | 0.07 | \$276,100 | |

Total Acreage: 1.63 Acres

Total Assessed Value: \$5,027,000

Appendix H

Adopting Provisions of RSA 162-K



CITY OF NASHUA

In the Year of Our Lord, One Thousand Nine Hundred and Ninety-Eight

AN ORDINANCE

ADOPTING THE PROVISIONS OF RSA 162-K
AUTHORIZING THE CITY OF NASHUA TO CREATE
MUNICIPAL ECONOMIC DEVELOPMENT AND REVITALIZATION DISTRICTS

*The City of Nashua ordains that Chapter 2, Article X "Taxation and Finance",
Div. 1 "Generally", is hereby amended by adding a new section 2-741 as follows:*

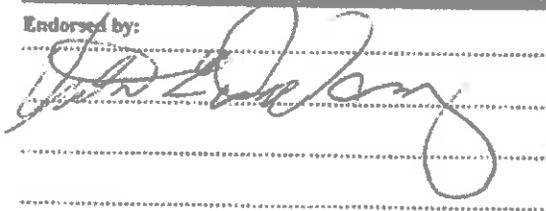
"Sec. 2-741. **Authorizing the establishment of tax increment financing districts for municipal economic development and revitalization.** The City hereby adopts the provisions of RSA 162-K, Municipal Development and Revitalization Districts, which authorize the City to establish development districts, development programs, and to finance improvements through tax increment financing plans, all consistent with the provisions of that statute as amended from time to time."

AN ORDINANCE

0-98-74

Adopting the provisions of RSA 162-K
authorizing the City of Nashua to create
Municipal Economic Development and
Revitalization Districts

Endorsed by:



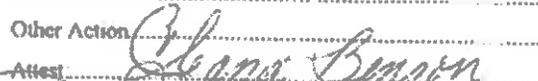
IN THE BOARD OF ALDERMEN

1st Reading..... OCTOBER 13, 1998
2nd Reading..... NOVEMBER 24, 1998
Referred to committee on OCTOBER 13, 1998
PLANNING & ECONOMIC DEVELOPMENT COMM.
CITY PLANNING BOARD

Passed..... NOVEMBER 24, 1998

Defeated.....

Other Action.....

Attest:  Cheryl Benjamin

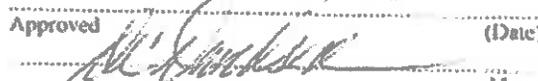
City Clerk

 David G. Frazier

President

NOVEMBER 24, 1998

Approved..... (Date)



Mayor