
Gerrish Avenue / Bellingham Street Neighborhood Action Plan

For:

Department of Planning & Development
City of Chelsea, Massachusetts

By:

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with

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Table of Contents

I - Introduction / Executive Summary

II - Neighborhood Goals

III – Vision Plan

- New Gerrish Avenue Residential Sub-District
- Linking Gerrish Avenue to Bellingham Street
- Revitalization of the Grove/Marlboro/Library Blocks
- Broadway Corridor Mixed Use Sub-district
- Housing Stabilization Program
- Public Realm Improvements

IV – Redevelopment Strategies

- Analysis of Development Potential Under Varying Densities
- Key Development Sites – Gerrish Avenue and Stabilization Area
- Key Development Site Design Tests – R-3/Medium Density
- Housing Typologies

V – Transportation Recommendations

VI – Public Realm Plan

VII – Illustrated Master Plan

VIII - Implementation

- Re-Zoning Strategy
- Infrastructure Funding
- Housing Stabilization Program

Appendices

Appendix A

- Existing Conditions
- Demographics/Building Condition
- Existing Zoning

Appendix B

- Key Development Site Design Tests – R-2 and High Density

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I. Introduction (Executive Summary)

In 2006, the City of Chelsea retained Stull & Lee Inc. to prepare a Vision and Action Plan for the revitalization of the Gerrish / Bellingham neighborhood. At that time, the Gerrish Avenue sub district, located in the former industrial zone known as the Box District, was on the threshold of renewal – with new housing developments underway and improved streets and utilities planned and funded by state grants. Although redevelopment momentum for the neighborhood was clearly well underway, much of the Study Area's existing housing stock remained overcrowded and in poor condition and there was no overall guiding vision for the area's redevelopment. There was also a concern that the densities being created under the 40R overlay were not suitable for the entire neighborhood although that incentive was needed to jumpstart redevelopment of the industrial area.

The Gerrish Avenue sub-district of the Bellingham Street Neighborhood presents an opportunity to not only transform the former box manufacturing district into a new urban residential community but also provide the impetus to improve the quality of life in the entire Bellingham Street Neighborhood, an area that is possibly the most densely built in the entire City of Chelsea. The redevelopment of Gerrish Avenue is already well underway with the first phases of new housing being developed by Chelsea Neighborhood Housing Services nearing completion. The second phase by a private developer, Mitchell Properties, is about to begin construction. Plans are also being developed for several additional underutilized sites along the street.

The purpose of this study is to provide some guidance to the Chelsea Planning Department and the Bellingham / Gerrish neighborhood on an overall planning framework of zoning, public improvements and housing rehabilitation to guide and stimulate the revitalization of the Gerrish/ Bellingham Street Neighborhood. To this end the study accomplishes the following objectives:

- 1 – Presents a Vision Plan with suggested housing densities to guide the rezoning and redevelopment of former industrial properties in the Box District, the redevelopment of underutilized properties in the balance of the district, and the design and funding of streetscape and open space improvements*
- 2 – Provides a Public Realm Plan to help link the New Gerrish Avenue Sub-Area with the Bellingham Street Neighborhood.*
- 3 – Proposes a Housing Stabilization Plan targeting the Library Street/Marlboro*



Bellingham Street / Gerrish Avenue Neighborhood



Highland Street Stairs



Massing Diagram



Proposed Bike Path

Street blocks to encourage the interior and exterior upgrading of properties, the reduction in over-crowding, and a coordinated effort at addressing foreclosures within the target area.

The recommendations advanced in this study include:

Density Studies & Possible Subsequent Rezoning by the City

Alternative massing scenarios were developed for all underutilized sites in both the former industrial area along Gerrish Avenue and the Library/Marlboro/ Grove blocks. As a result of these studies and reviews with the Chelsea Planning Department and the Bellingham Street Neighborhood Study Steering Committee it is recommended that redevelopment of these sites adhere to density limits more consistent with the R-3 zoning district of the City of Chelsea Zoning Code. This can be achieved by creating a new zoning designation (referred to in this study as a R-35 district) or by extending a Chapter 40R Overlay District to the balance of the former Gerrish Avenue Box District properties with a density limit of approximately 35 units per acre. Under this 35 units per acre threshold, residential development can be created at a density and construction typology that is affordable to Chelsea residents while still providing needed open space and parking. It is also recommended that parking requirements be adjusted so as not to encourage automobile ownership while responding to the existing trends. We recommend that a 1.25 spaces per unit be adopted in the new zoning although actual parking standards will require additional analysis and discussion. These density and parking thresholds conform to the Smart Growth policies established by the state taking advantage of proximity to mass transit and support (retail and service) amenities.

Public Realm

The City of Chelsea has initiated public realm improvements in conjunction with 40R development initiatives that will change the image of this former industrial area. This report recommends that these initiatives be extended to other streets in the district. These streetscape improvements will encourage pedestrian activity, will contribute to creating a residential neighborhood and will address the negative image created by the deteriorating properties. In addition to these streetscape improvements the report also recommends a series of public improvements that will connect the emerging residential district with the existing Bellingham Street neighborhood. These improvements include:

- Extend the Public Realm improvements (street trees, lighting and sidewalks) to Highland, Library and Marlboro.
- Extend Library Street across the former CSX right of way to create a pedestrian connection, but not a vehicular connection, between the

- Bellingham Street Neighborhood and the Crescent Street industrial Area.
- Create a monumental green open space at the Highland Street / Bellingham Street intersection atop Bellingham Hill, turning this current parking lot into a green oasis that befits this prominent hilltop site.
- Strengthen the Highland Street corridor as a focal spine of the neighborhood by adding seating areas to the pedestrian stairs between Grove Street and Marlboro Street, a passive park on the Sudbury Brass Site, and a plaza at the foot of Highland Street as an entry to a new multi-path bikeway / walkway along the abandoned rail right-of way.
- Create a pedestrian path/bikeway along the abandoned CSX rail right of way including a connection to Broadway and the commuter rail station to the west and the Chelsea Creek waterfront to the east.

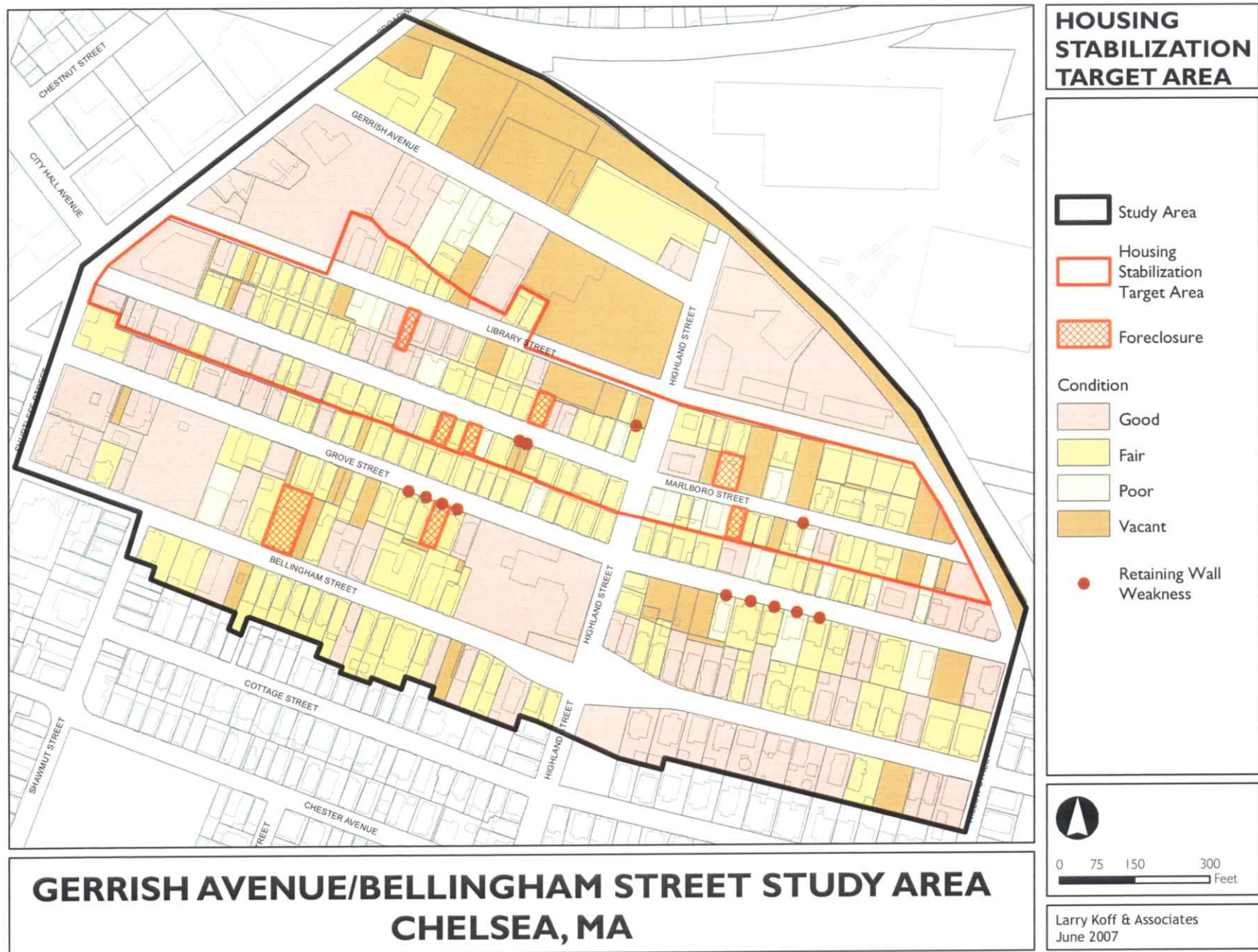
Housing Stabilization Plan

Existing conditions surveys and discussions with community leaders and City staff indicated that overcrowding, poverty and the lack of resources for upgrading the existing housing hinder the city's neighborhood revitalization efforts within the Box District. These conditions can be mitigated if the City institutes a Housing Stabilization program. Building on existing programs and limited resources, a comprehensive housing improvement effort can be undertaken for a smaller target area which includes the following strategies:

- Identify a reasonably sized target area for housing stabilization programs adjacent to the Box District-Library and Marlboro Streets).
- Establish an Outreach and Education program for homeowners and immigrants to increase effectiveness of existing housing programs which are to be targeted the Library/Marlboro Street area..
- Create a "Quality of Life" Housing Stabilization Committee with representatives from city departments and concerned non-profit groups.
- Implement "Walk Around Code Enforcement effort" to undertake exterior inspections as a means to isolate problem properties.
- Provide rehabilitation incentives to address interior and exterior improvements through a mix of loans and grants utilizing the "Get the Lead Out" and CDBG Housing Rehabilitation resources.
- Target properties burdened by foreclosures and sub-prime lending problems.
- Target public improvements utilizing CDBG and 40R funding to support retaining wall and related improvements.
- Develop long term parking strategy to address parking shortage and related problems.
- Consider 40R overlay zoning to encourage new development at appropriate densities and infill development.



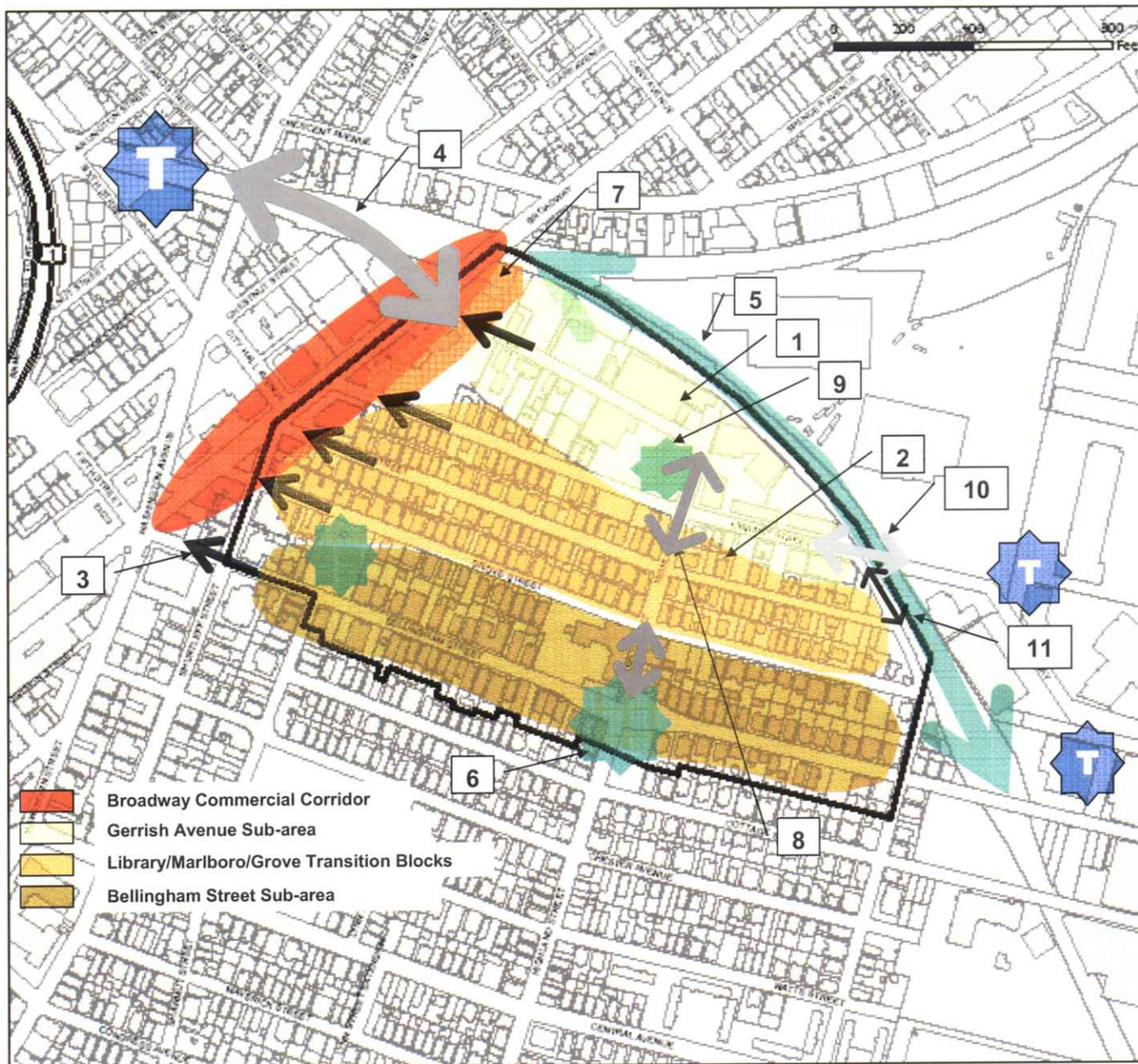
Image for Gerrish Avenue



II. NEIGHBORHOOD GOALS

The City of Chelsea's Request for Proposals for a Gerrish Avenue/Bellingham Street Neighborhood Action Plan highlighted a broad range of goals for revitalization of the neighborhood. As the plan advanced and Existing Conditions, Issues and Opportunities and a broad range of Alternative Strategies were reviewed with City staff and the Steering Committee, these goals were modified and expanded. The following goals have guided the Vision and Action Plan:

- **Identify a Vision for the Gerrish Avenue / Bellingham Street Neighborhoods that encourages further revitalization and improves residents' quality of life.**
- **Identify appropriate new housing densities that will both provide a high quality of life for residents, with plenty of amenities such as new open spaces, while also ensuring that redevelopment projects are financially feasible for developers.**
- **As a corollary, determine whether it makes sense to expand the boundaries of the 40R districts to encourage these densities.**
- **Develop guidelines to manage and direct future residential development opportunities in this emerging residential neighborhood and insure the provision of new open space amenities to provide a high quality of life to the area's residents.**
- **Identify specific private and public revitalization opportunity sites within the Study Area that take into account resident needs and market conditions.**
- **Eliminate slum and blight and encourage sustainable development.**
- **Improve links between Bellingham Hill and the emerging Gerrish Street sub-area.**
- **Develop a Housing Stabilization Program to address overcrowding, substandard/ blighted housing, lack of usable open space and lack of parking within the existing residential neighborhood.**
- **Identify strategies for knitting together the two adjoining neighborhoods, linking the two neighborhoods to the Broadway commercial corridor / downtown Chelsea, and the T Station**
- **Explore Urban Ring Station Siting Relocation Options with the City MBTA to establish new 'gateway' to a new Gerrish / Bellingham Transit Oriented Development District /40R District**
- **Prepare an Action Plan with strategies and resources that support the Vision**
- **Identify possible pedestrian connections to improve access to the nearby commuter rail station**



Gerrish Avenue/ Bellingham Street Neighborhood Study

Neighborhood Goals

- 1) Gerrish Avenue Residential Sub-district – density to be compatible to existing neighborhood but with the critical mass to be sustainable - provide needed parking and open space.
- 2) Library/Marlboro/Grove – transitional zone with “soft” fabric – encourage rehabilitation of existing structures and infill development at a density that maintains urban character but provides parking and open space.
- 3) Upgrade streetscape on connector streets to Broadway to improve pedestrian connections to transit/ commercial/institutional activity.
- 4) Transit – Utilize CSX transit easement to improve access to mass transit.
- 5) Linear Park – Improve CSX Rail Corridor with pedestrian walkway/bike trail. Integrate improvements with long-term Urban Ring planning.
- 6) Bellingham Hill – special qualities of this site provide the opportunity to create a destination – supplement park with formal monument/square
- 7) Broadway edge/gateway – opportunity to build to a higher density based on accessibility to “Main Street” and Transit.
- 8) Develop Highland Street Open Space Network as focal point of Gerrish Avenue Sub-district and asset to Bellingham Street Neighborhood.
- 9) New Highland Street Park as part of Highland Street Open Space Network
- 10) Library Extension – Establish Pedestrian connection across rail corridor to provide limited access to industrial area.
- 11) Extend Willow Street to Library improving connections between Gerrish Ave Sub-district and Bellingham Street Neighborhood.

III VISION PLAN

The Vision Plan for the Bellingham Street/Gerrish Avenue Neighborhood has two objectives – to provide guidance toward the shaping of the emerging Gerrish Avenue residential sub-area and use this private reinvestment supported by public activities to connect the Gerrish Avenue area with Bellingham Street and in the process, harness the reinvestment incentives to elevate the quality of life of the Grove/Marlboro/Library blocks.

The Components of the Vision Plan include:

- A new Gerrish Avenue Neighborhood that builds on the unique qualities of the former Box District to create a special place in the City that is sustainable (meets its own parking and open space needs)
- A Bellingham Street sub-area that is linked to the downtown and Gerrish Avenue.
- An expanded Broadway Corridor that extends the vibrant mixed-use downtown northward to the Gerrish Avenue sub-area and creates additional TOD opportunities for Chelsea.
- Revitalization of the Grove/Marlboro/Library blocks of the Bellingham Street Neighborhood by maximizing the initiative created by the Gerrish Avenue sub-area, Bellingham Street sub-area and the expanded Broadway corridor.
- Development of a Housing Stabilization Program to assist in strengthening Bellingham Street and the Grove/Marlboro/Library blocks.
- Targeted public realm improvements to facilitate revitalization of the Bellingham/Gerrish Neighborhood, thereby strengthening the connections between the sub-areas and creating a unified neighborhood.

▪ New Gerrish Avenue Residential Sub Area

Gerrish Avenue is the main street of the former Box District defined by the abandoned CSX Rail Corridor to the north and east, Library Street to the south and Broadway to the west. This area is rapidly being transformed into a new residential neighborhood. The re-making of this former industrial area into a residential neighborhood has been a long term goal of the City and not only provides new housing opportunities to the Bellingham Street Neighborhood but also provides the impetus to revitalize blighted area of that neighborhood. A primary objective of the Vision Plan is to set guidelines for the continued redevelopment of this area to insure its potential is fully realized and it becomes a unique residential community in Chelsea.

New Image

An aggressive re-working and re-imagining of Gerrish Avenue is vital to providing an appealing environment for the new residential community developing here. With the St. Rose's church as a landmark at one end of the street and the Atlas Box Factory complex residential lofts at the other, the combination of these two architectural bookends will form a strong architectural/visual armature. In addition, the planned Gerrish Avenue streetscape improvements will visually transform the area from a stark industrial zone to a more intimate residential environment that will support pedestrian activity.

New Housing Options

The large unconstrained parcels of the former Box District provide the opportunity to create modern, affordable "urban" housing with needed amenities including shared and private open space, and parking. Chelsea already has numerous neighborhoods of detached two and three family



Illustrative Vision Plan

homes, particularly in the balance of the Bellingham Street Area. New housing typologies including multi-family condominiums and apartments can provide additional options to Chelsea residents at similar densities to those found in the two family sections of Bellingham Street. Also, the alternatives can provide better site management to address off street parking and open space needs.

Another option to solving parking and open space concerns is adding height. Although this is not a preferred approach, there are already four story + structures on the adjacent blocks and Gerrish Avenue sits at the base of Bellingham Hill. This provides the opportunity for taller buildings that will not cast shadows on the existing two, three and four story multi-family structures in the Bellingham Street Neighborhood.

Transit Oriented Design

The Gerrish Avenue Sub-District features several assets that allow it and its future development projects to meet the basic goals of smart growth and transit oriented design (TOD):

- Adjacency to the downtown and its services,
- Proximity to mass transit and
- An established infrastructure including schools, utilities and roadways.

These assets support increased density, lower infrastructure costs and lower parking ratios, the basic elements consistent with a more efficient use of valuable urban land. With zoning establishing standards for usable open space, the neighborhood planned for Gerrish Avenue can meet the TOD thresholds and high quality of life objectives missing in other areas of the Bellingham Street Neighborhood.

Specialty Housing

As noted above, plans are being developed to rehabilitate former box manufacturing facilities into housing. The preservation of these structures will have benefits beyond anchoring Gerrish Avenue:

- It will preserve the Architectural Heritage of the area giving it unique image and guiding building density and massing.
- Rehabilitating the valuable architecture also supports current sustainable design standards requiring fewer resources to build and operate the new housing.



Sudbury Brass Site on Gerrish Avenue



Broadway, Chelsea



Former Atlas Box Factory



Willow Street Right of Way

- Rehabilitating the manufacturing structure presents opportunities to create specialty housing that will attracting a broader base of residents (socio-economic mix).

▪ **Linking Gerrish Avenue to Bellingham Street**

With Gerrish Avenue emerging as a residential area there is the desire to connect this former industrial area with the larger neighborhood whose residents it once employed. The areas remain separated by a street and block pattern and steep topography that isolated the former industrial area from the residential area thereby inhibiting pedestrian and vehicular access between the two. The Vision Plan targets public realm improvements that can improve accessibility between these areas including but not limited to expanding the Highland Street improvements. These recommended improvements are highlighted here and described in greater detail in the public realm plan:

New Streets

An obvious solution would be to add cross streets (parallel to Highland) that would provide more circulation options. Currently, however, there are no available continuous paths or public easements that could accommodate a new right of way. The alternative of taking existing housing to create a new corridor is unacceptable to the community. Therefore, recommended options emphasize improving existing rights of way first and creating paths which make for a pleasant and safe walk up or down the hill.

Highland Street Stair

The existing stair that connects Grove Street and Marlboro Street can be embellished to not only improve it as a path but also make it a place by creating sitting areas at the landings. This would also expand the open space resources for Bellingham Neighborhood.

Willow Street

This street has provided access from Marlboro and Grove Streets to Bellingham but it does not extend to Library thereby inhibiting industrial related traffic from the former Box District from using residential streets. As Gerrish Avenue becomes more residential, extending Willow Street from Marlboro to Library now becomes a more desirable pathway to improve circulation between Gerrish and Bellingham.

Highland Street Open Space Network

In addition to the existing stair, a series of open space opportunities can be provided along Highland Street to make this corridor a place or series of places along a path where residents may want to meet. These places will create more incentive for residents to move internally through the neighborhood not just to Broadway.

- Extend Bellingham Hill Park to create a symbolic civic place at the Highland /Bellingham intersection at the top of the hill. The potential of this important place is now diminished by the parking lot located there and should be redesigned to show what is important to the community.
- Added sitting spaces at the landings of the Highland Street Stairway to make it both a path and a place.
- Create a new park along Highland Street between Library and Gerrish. This can either be accomplished through the near term acquisition and improvement of this underutilized Sudbury Brass parking lot or as part of the redevelopment of the entire parcel. This space would become both a focal point of the Gerrish Avenue neighborhood and a point along the Highland Street corridor.
- Plan for the CSX Linear Park/Urban Ring – A small park could be created where Highland Street terminates at the former rail corridor. This space could either mark the entrance to a linear park/bikeway or be an entry plaza to a stop along the future Urban Ring transit way.

Highland Street Streetscape Improvements

Gerrish Avenue will be reconstructed with new sidewalks, lighting and trees creating further incentive for the redevelopment of underutilized properties. Extending these improvements to Highland will upgrade the pedestrian environment of Highland reinforcing its importance as a focal spine of the Bellingham Hill Neighborhood.

▪ Housing Stabilization in the Grove/Marlboro/Library Transition Blocks

The Library/Marlboro/Grove blocks consist of multi-family housing, mostly two families and triple-deckers, many of these structures are in poor condition; the majority in fair condition with the properties on Bellingham Street in the best condition. The positive changes taking place on Gerrish Avenue immediately to the north - with the elimination



Highland Street Stair from Marlboro



Marlboro Street



Chelsea City Hall on Broadway

of industrial uses and the construction of high quality housing - will not only improve the housing conditions for residents on Gerrish Avenue but will also positively affect the market for housing in these transition blocks between Gerrish and Bellingham. The reinvestment along Gerrish Avenue will create the impetus for similar reinvestment in the transition area – both rehabilitation of existing housing and investment in infill housing on underutilized sites.

Another important factor that will influence the redevelopment of the transition blocks is the Bellingham Street Neighborhood. This stable residential area has quality housing and more open space and off street parking. As with Gerrish Street, the higher quality of life found on Bellingham Street will have a beneficial impact on the adjacent transition blocks. By strengthening connections between the Gerrish Avenue and Bellingham Street neighborhoods, the higher quality of life/environment that exists on Bellingham Street and is being created on Gerrish Avenue can be extended to the Grove/Marlboro/Library transition blocks that lie in between.

▪ **Broadway Corridor Mixed Use Sub-district**

Broadway as “Common Meeting Ground”

At present, the Broadway Corridor adjacent to the Gerrish Avenue Sub-District serves as the neighborhoods’ institutional attraction (church, etc.) while Broadway adjacent to the Bellingham Street Neighborhood serves as the neighborhoods’ commercial spine. As the new residential district continues to develop in the former industrial area surrounding Gerrish Avenue, new residents will require additional convenient retail services as well. Therefore, new mixed use projects should be developed along the east side of the Broadway corridor. Retail and community services should be located on the ground floor with either new housing or office uses located above. This new development will expand the Broadway commercial spine and serve as the two neighborhoods’ ‘common meeting ground’.

Gateway to Commercial Spine

Additionally, this northern portion of the Broadway Corridor is located close to the Chelsea Commuter Rail Station and should be developed more densely (possibly four stories or greater) to serve as the core of a wider Transit Oriented Development community (and possibly expanded 40R zoning district). This portion also marks the entrance to the

commercial spine further supporting the possibility that this area could support taller "landmark" structures and mark this gateway.

Gateway to Gerrish Avenue

Some existing Broadway properties on the east side of the street in the Gerrish sub-area are viable businesses and institutions, but represent underutilized value in light of new development occurring around them. In any long range plan for the area, some of these properties should be considered as redevelopment sites. These sites can be combined with St. Rose's Rectory property to provide a complete transformation of this segment of Broadway into a high-density mixed use development 'gateway' into the Gerrish Avenue sub-area and a new northern entrance into the downtown.

▪ Public Realm Improvements

New Urban Ring Station

As presently planned, two new urban Ring Stations are planned to both the east and west of the Study Area, but none immediately adjacent. This Study for the Gerrish / Bellingham neighborhoods allows reconsideration of these sites.

A new Urban Ring Station should be added to currently proposed Urban Ring Station sites at the foot of Highland Avenue, which is the only through-connecting corridor linking both the Bellingham and Gerrish Avenue neighborhoods. A new Urban Ring Station at the foot of Highland could serve as a central attraction drawing residents down from the Bellingham neighborhood to and through the new Gerrish Avenue residential community.

Community Open Space & Streetscape Improvements

New community open spaces, parks and playgrounds will serve as attractive amenities to the expanding residential community in the Gerrish Avenue area and attract residents from both neighborhoods to a new 'common meeting ground'. These new open space amenities should include:

- A park along Highland Street between Library and Gerrish.
- Bellingham Square Green Space at the intersection of Highland and Bellingham
- Rail ROW Green Buffer & Multi Path Walkway and Bikeway



St. Rose Rectory from Gerrish Avenue



Commuter Rail Corridor

- Foot of Highland' Gateway Plaza or Park
- Highland Street Green Spine
- East / West Streets Streetscape Improvements including sidewalks, street lighting, street trees, crosswalks and signage (improving pedestrian connections to Broadway)

Street and Pedestrian Improvements

In addition to the open space and streetscape improvements noted above, the Vision Plan recommends modifications to the existing street network that will improve access in the Bellingham/Gerrish Neighborhood and to the adjacent Broadway commercial area and the Crescent Street industrial area. These improvements include:

- The Willow Street extension to link Library and Marlboro
- Library St. Pedestrian Extension across the CSX Rail ROW to the Crescent Street industrial area to the east
- Pedestrian pathway from Broadway to MBTA Commuter Rail Station

IV. REDEVELOPMENT STRATEGIES

The Bellingham Street/Gerrish Neighborhood is changing with the first phase of new housing nearly completed and associated public improvements about to get underway. The redevelopment of former industrial properties will continue and with it pressure to redevelop and rehabilitate properties in the transition blocks. The issue of concern to many is over-development at unacceptable densities. A goal of this plan is to determine the most appropriate residential densities for this neighborhood. Therefore, finding the correct balance between creating a financially and environmentally sustainable new residential community and the avoidance of recreating the overly dense environment found in sections of the Library/Marlboro/Grove Street sub-area is the challenge of this Study.

To best understand the possible impacts of future development, this study has prepared a series of build out scenarios testing three different densities:

1. R-2 Zoning, (Existing) – The R-2 zoning is the base case, the as-of-right approach where new development adheres to the existing dimensional limits. The R-2 zoning allows a density of 12 to 15 units per acre.
2. R-3 Zoning (Crescent Street Neighborhood) - This zoning is similar to the Bellingham Street Neighborhood zoning that predated the new R-2 zoning. Although the R3 zone allows up to 45 units per acre, the report considered surface parking only which limited densities as shown in the modeling to approximately 30 units per acre. The R-3 Zoning is considered a moderate density.
3. 40-R (Gerrish Avenue Standard) – This strategy examines densities up to 50 units per acre – similar to those achieved under the current 40R Overlay District. This high density approach will consider the implications of both additional height and massing as well as easing of parking requirements consistent with Transit Oriented Design strategies.

Each of these strategies will be analyzed in terms of three issues; build-out, financial feasibility, and parking.

▪ Analysis of Development Potential Under Existing Zoning Rules (R-2)

• What Can be Built or Can It be Built at All?

As noted, the Bellingham Street Neighborhood that includes the former Box District is incorporated in a larger R-2 zoning district. The R-2 district was extended into the former light industrial area to promote residential development along Gerrish Avenue. This low-density zoning would result in primarily two to four family detached structures and a density of 12 to 15 units per acre. The features of this housing pattern include:

- Street/building pattern that has significantly more open space between buildings than now exist in the neighborhood with generally three family buildings that are either a triple-decker or a one over two.
- Parking in side yard or rear of buildings. Parking could be in garages accessed from the street but this would require numerous and overly wide curb cuts.
- Private open space associated with the housing units can be provided.
- The larger industrial parcels could be subdivided to create individual ownership units and individually managed/maintained open space.

Chelsea Zoning - Dimensional Regulations

	I-3 Units (R-2)	Apartment	Residence R-3	Retail Business 2
Minimum Lot Area				
Per Dwelling Unit	3,500 sq. ft.	3,000 sq. ft.	950 sq. ft.	350 sq. ft.
But not less than	5,000 sq. ft.	10,500 sq. ft.	5,000 sq. ft.	10,000 sq. ft.
Minimum Frontage	40 ft.	60 ft.	40 ft.	50 ft.
Maximum Floor Area Ratio				
Standard	n/a	1.0	1.0	n/a
Bonus	n/a	2.0	1.5	n/a
Maximum Height	35 ft.	40 ft.	36 ft., 60 by SP	36 ft., 60 by SP
Maximum Number of Stories	3	4	3, 5 by SP	3, 5 by SP
Required Yards				
Front	10 ft.	10 ft.	10 ft.	10 ft.
Side	1/4 building height	1/4 building height	1/4 building height	10 ft.
Rear	20 ft.	20 ft.	20 ft.	20 ft.
Maximum % Lot Coverage	40%	40%	40%	n/a
Minimum Usable Open Space per family	300 sq. ft.	150 sq. ft.	150 sq. ft.	100 sq. ft.
Minimum Area to remain as Usable Open Space	n/a	n/a	n/a	n/a
Minimum Distance Between Access Points to the same lot	n/a	n/a	n/a	n/a

More specific details of the building typologies possible under the R-2 zoning can be seen when these dimensional restrictions are applied to infill (Transition Blocks) and former light industrial (Box District) sites. The R-2 designation places significant restrictions on the as-of-right development of both of these parcel types as compared to the existing building types and densities:

Transition Blocks - The residential area is composed of small sites averaging approximately 5,000 square feet proximate to Bellingham Hill and only 3,000 square feet on the north slope of the Hill toward Gerrish Street. Since the R-2 district establishes the minimum parcel area at 5,000 square feet, many of the vacant parcels in the existing residential area are too small to be redeveloped as of right. And with a minimum lot size of 5,000 square feet and a 3,000 square foot site area per unit limit, most of the existing sites that currently have two and three family structures could not be redeveloped and certainly not at the existing density. These zoning limits discourage or absolutely prohibit construction of new housing to replace substandard structures and development of moderate single and two family structures (added soft costs to gain needed variances add additional costs and time).

Gerrish Avenue Parcels - This site area limit also effects the redevelopment of the Gerrish Street parcels. From an urban form standpoint, the R-2 zoning permits a density far lower than the densities now found in the adjacent residential neighborhood and the existing industrial structures. The sites are large enough to be developed as of right but the land costs would make redevelopment at the allowed R-2 density prohibitive. And the FAR bonus for apartments cannot be achieved.

- **Is It Financially Viable?**

Although the R-2 zoning density would decompress the neighborhood and provide the open space and off street parking that also impact quality of life, the new R-2 zoning could be a disincentive to redevelopment.

The existing vacant parcels are too small to be developed as of right so that the additional cost to get variances may prevent owners of non-compliant, small properties from soliciting variances.

The parcels that are large enough to be developed as of right cannot be redeveloped at an R-2 density that offsets the land and infrastructure costs.

There is no incentive to redevelop parcels that have substandard housing since in most cases these sites cannot be redeveloped at the same density that now exists – existing properties with three units on 3,000 square foot sites can only be redeveloped through the variance process (5,000 square foot minimum site area) and even then as single family home.

Although the light industrial properties have been rezoned to residential, the density permitted for residential use does make redevelopment financially viable – land values are just too high to support housing densities of 12 to 20 units per acre.

Parking

The benefit of the R-2 zoning is that the low density it promulgates leaves sufficient site area to accommodate surface parking. This allows parcels that meet the minimum size requirements to easily meet the parking and open space requirements.

Parking remains a problem for the individual parcels in the Grove/Library/Marlboro blocks. As with any redevelopment scenario, the narrow sites make side yard driveways that generally accommodate parking difficult. The only solution is to provide parking in first floor garages. This approach works where the site slopes up away from the street as is the case on the south side of Grove, Marlboro and Library. It does still pose pedestrian safety concerns as these shallow sites and current zero to five foot setback puts the garage doors right on the sidewalk and the narrow streets create some maneuvering

restrictions, however it is a solution that currently exists in the neighborhood and eases the parking constraints to a degree.



Massing Study - R-2 Zoning Density

- **Analysis of Development Potential Under R-3 Zoning Rules**

- **What Can be Built or Can It be Built at All?**

The R-3 zoning designation applies to the Crescent Street residential district northeast of the Bellingham/Gerrish Neighborhood. While still limited by the 5,000 square foot minimum buildable site area, the R-3 zoning district does allow for more units by reducing the required site area per unit to 950 square feet. This allows for three units on a 5,000 square foot site where the R-2 would only allow one unit without a variance. The R-3 zoning allows a density of approximately 30 units per acre (with the required parking and open space requirements accounted for), which is still below the existing density of the Grove/Marlboro/ Library blocks.

The other benefit of the R-3 zoning is that it provides more flexibility with housing typologies. When applied to the Gerrish Avenue sub-district, multi-family, low-rise construction is permitted allowing for townhouses, row houses and stacked units (zero side yard) as well as low rise multi-story apartments. The density increase and greater flexibility increases the housing design options for new development particularly in the Gerrish Avenue district. This allows for development that is more consistent with the existing multi-family housing in the Bellingham Hill area, two and three family units included.

Marketability Under R-3 - The other aspect of "what can be built" is what type of units are marketable? The area has a lot of two and three family properties. These structures require much higher down payment and an expertise in managing/maintaining detached, single site housing. By contrast, the rental and condo units currently being developed require either no or considerably smaller down-payment and closing cost and have shared maintenance and management through the condo association relieving the property owner of this responsibility. The higher density, multi-family residences add variety to the market by providing a different housing type.

- **Is It Financially Viable?**

Even under the R-3 zoning developing existing small infill sites is very difficult. The narrow, shallow sites are too small to allow for side yards for parking and these sites are below the minimum area required to be developed as of right. However, these sites can be developed to a density just under the current massing when two or more sites are combined.

Since replacing the current two and three family structures can not be achieved without combining sites, owners of these properties would have more incentive to rehabilitate existing housing than to rebuild with fewer units. The benefit is that under the R-3 dimensional standards, sites that are large enough to be developed can use multi-family residential typologies and still have site area to provide off-street parking and open space. These simple housing typologies can also create market affordable housing.

The R-3 zoning does create a much more viable environment to redevelop the larger industrial sites on Gerrish Avenue. Densities of 30+ units per acre can be reached while still using light weight construction, providing surface parking and meeting the usable open space requirements. At this density, the land cost associated with commercial property can be distributed across the residential units and still meet the market/affordable price ranges.

Parking

The parking requirements for the R-3 zoning are the same as the R-2 (1.5 spaces per unit). However, as opposed to the R-2 zoning where the site area per unit limits the number of units that can be accommodated on site, under the R-3 zoning (where more units can be provided), parking begins to play a more significant role in determining the unit count.

The price threshold in the Gerrish/Bellingham neighborhood cannot support structured parking and mid-rise construction. The parking must therefore be accommodated with surface parking lots or, in some cases, ground floor garages. That is why when the lower site area per unit threshold is factored in, the area required for parking becomes the controlling factor as to the number of units that ultimately can be accommodated.

The development potential for low rise residential use for these larger sites could be maximized if the parking requirement of 1.5+ spaces per unit was eased to one space per unit. This is an acceptable ratio for new TOD neighborhood such as those being constructed on Gerrish Avenue and would not result in the parking shortages and related problems found in other areas of the Bellingham Street Neighborhood. This relief does not assume a similar compromise for the usable open space requirements.



Massing Study - R-3 Zoning Density

- **Analysis of Development Potential @ 50 Units Per Acre**

- **What Can be Built or Can It be Built at All?**

50 units per acre creates a ratio of 870 square feet of build able site area per unit of housing. This ratio is not much different from the R-3 threshold of 950 square feet of build able site per dwelling unit. Therefore, achieving this density is not based on density but on requirements related to massing, parking and open space. Building to this density obviously requires trade-offs, particularly for parking and height.

Several assumptions were made in order to achieve this higher density. First, the most efficient residential building type that could meet the market affordable thresholds was used - a low rise, double loaded corridor structure. Second, it was assumed that structured parking in general was not economically viable and that surface parking at a lower threshold would have to be allowed – one space per unit.

With these trade-offs, 50 units per acre could be achieved on the large industrial sites. While smaller infill sites could be developed at this higher density, these sites still faced the same limitations as with the R-3 zoning – site coverage created problems meeting parking and open space requirements.

- **Is It Financially Viable?**

There is no doubt that when additional density is permitted and parking requirements reduced, additional building typologies are available so that the financial viability of housing increases. The land, infrastructure and construction costs are spread over more units and the more efficient floor spaces make more land available for open space. The problem is that the poor quality of life impacts return – such as more stress on on-street parking resources. Even with less land devoted to parking the percentage of land available for open space particularly private open space, is diminished.

There is also less individuality in the housing – fewer private entrances, shared circulation and fewer opportunities to individualize the housing units. The building typology is also much different than the existing context – wood frame, two and three family structures. Although these two and three family structures are dense, they can provide abundant light and air and create a special street environment – a street made up of many pieces and a richness that double loaded corridor buildings rarely replicate.

Parking

As noted above, parking becomes less of a restriction in this scenario – few spaces are required at the lower parking ratio, and the building typology requires less site area thereby making more area available for efficient surface parking lots.



Massing Study - High Density (50 Units per acre)

Key Development Sites – Gerrish Avenue and Stabilization Area

These sites are found to be either underutilized or non-conforming to existing zoning and planning objectives. This section lists all of the sites in the Bellingham/Gerrish Study area that fall into this category and includes parcel descriptions and assumptions:

Site 1 – Standard Box

- **Description** - Standard Box Company sites consist of two parcels of land situated on Gerrish Avenue and back up the former CSX rail corridor. Both of these parcels are controlled by Mitchell Properties but no formal development proposal has been submitted to date.

44 Gerrish Street is approximately 32,590 sf and currently improved with the 29,200 sf Standard Box Company Building, a one story brick industrial building. The site also has frontage on Highland Street where the loading dock is located. Manufacturing has ceased and the building remains vacant.

22-28 Gerrish Street is approximately 53,326 sf and is vacant land. The irregularly shaped parcel has continuous frontage along the former CXS Rail corridor that extends behind 0 Gerrish Street (a three story commercial building owned by CSX) and 40 Gerrish Street (a vacant lot).

- **Assumptions** - Mitchell Properties does not intend to redevelop these parcels for residential use consistent with the current zoning for the Gerrish Avenue area. Preliminary concepts suggest multi-family, wood frame housing with surface parking for both sites – a total of 70 units might be possible in both a double loaded corridor apartment style and two-three family detached buildings.

Site 2 – Sudbury Brass Works

- **Description** – 47 Gerrish Avenue is a 54,048 sf parcel located at the corner of Gerrish Avenue and Highland Street. It is improved with a 19,000 sf, single story, brick building that houses the Sudbury Brass Goods Company, an active manufacturing facility.

The balance of the parcel is vacant land used primarily for surface parking.



Standard Box



Sudbury Brass Works



KEY DEVELOPMENT SITES

-  Study Area
-  Study Area Parcels
-  Existing Buildings
-  New Buildings



0 75 150 300 Feet

GERRISH AVENUE/BELLINGHAM STREET STUDY AREA CHELSEA, MA

Larry Koff & Associates
June 2007

- **Assumptions** – There are no current plans to redevelop the site. For planning purposes this study analyzed the redevelopment of the parcel as a conforming residential use with the Highland Street frontage being set aside for a public park – the focal point of the emerging Gerrish Avenue residential district. Under this scenario the Sudbury Brass Works could be relocated elsewhere in the City.

Site 3 – Shawmut Printing

- **Description** – 125-139 Library Street and Marlboro Street are a series of contiguous parcels that total 18,000 sf. The site is improved with a 14,252 sf brick building that housed the Shawmut Printing Company. The building is currently used for storage.
- **Assumptions** – For planning purposes, this study analyzed the redevelopment of the parcel as a conforming residential use. The site could potential continue as light industrial due to its proximity to the industrial district north of the former CSX corridor, but only through a variance and special permit.



Shawmut Printing Company

Site 4a – CNHS/Family Dollar

- **Description** – 615 Broadway is a 21,257 square feet site at the corner of Gerrish and Broadway. Chelsea Neighborhood Housing Services has recently acquired the site and is making improvements to the upper floor of the 21,000 square feet building for new commercial office. The ground floor will continue to operate as a Family Dollar Store.
- **Assumptions** – The study has not analyzed redevelopment alternatives for the site since the CNHS is investing in and expanding the existing structure and the current use supports the long term objectives of the study to extend the commercial/retail uses of the Broadway corridor into this area.



CNHS / Family Dollar

Site 4b – Boston Edison

- **Description** – 625 Broadway is a vacant site owned by the Boston Edison Company and is 5,730 square feet. It is adjacent to the Chelsea Neighborhood Housing Services property that houses Family Dollar and the MBTA Transit Corridor and former CSX railroad



St. Rose Rectory

with 6 residential units.

- **Assumptions** – The study has included redevelopment options for the site that conform to the underlying zoning (residential use). Since the parcel does not extend through to Library Street and 62 Library Street (remnant parcel) is vacant and too small to develop under current zoning; these two parcels have been combined to create a more viable development.

Site 6 – St. Rose Rectory

- **Description** – Located at 603 Broadway across from Saint Rose Church is a 52,048 square feet site with a 10,230 square feet, two story brick residence. The primary use of the site is surface parking for St. Rose functions, primarily weekend services. The site and building are owned by the Archdiocese of Boston.
- **Assumptions** – The Rectory is underutilized and aging as is the parking lot for a majority of the week. The study options consider uses and densities that reinforce the urban design objectives including providing active retail and massing on Broadway that extends the commercial corridor, screening parking on Gerrish and Library and providing additional parking for adjacent residential and possibly for the mass transit (commuter rail) services.

easement. There are currently no uses on the site, not even parking as the site is only accessible from Broadway and that access is limited due to its proximity to Gerrish Avenue and the bridge over the MBTA transit corridor.

- **Assumptions** – This site would be very difficult to redevelop due to both its size and limited access. One realistic option would be for the site to be acquired by CNHS and developed as part of 615 Broadway use. The study examined expanding 625 to include the 615 panhandle creating a site that is over 8,000 square feet. Redevelopment under this condition would still be problematic as acquisition and infrastructure costs would make it difficult to achieve market rate/affordable housing. As a result, it is also assumed that a low density alternative would not be feasible. An alternative that reinforces the urban design objectives for Broadway was developed in this study and is included in the “Key Development Sites Design Tests” section.

Site 5 – 33 Gerrish Avenue

- **Description** – This site is 9,711 square feet and has a 1,176 square feet one story brick structure used as a commercial warehouse. D’Amico and Associates have received approvals to improve the site

Site 7 – 571 Broadway

- **Description** – 571 Broadway is a one story masonry building with retail uses (currently an auto parts store) on a 4,533 square foot site. It is adjacent to a vacant parcel that is used for surface parking and a three story residential building recently renovated by Chelsea Neighborhood Housing Services.
- **Assumptions** - This site is improved with a viable commercial retail use that does contribute to the Broadway Commercial corridor. It is not realistic to assume this building or use would be replaced with a low density housing development. However, a mixed use building with retail at grade and housing above that utilizes an adjacent parking structure to meet its parking demand could be viable. This study examines that approach in the next section.

Infill Parcels

Whereas the Gerrish Avenue sub-district consists of predominantly large, vacant, underutilized parcels; developable parcels in the transition zone between Gerrish Avenue and Bellingham Street are generally small, scattered sites with multiple owners. There are also parcels that have marginal structures, mostly multi family wood-frame structures that have been rehabilitated several times and provide sub-standard living conditions.

These parcels are also differentiated by the block patterns with the Library/ Marlboro/ Grove blocks being shallower than the Bellingham Street blocks. As a result, the analysis organizes these infill parcels into distinct groups – the shallow, smaller sites that predominate the blocks between Library and Grove and those sites on the blocks between Grove and Bellingham.

Shallow Sites

The Library/Marlboro/Grove blocks are densely developed with two and three family structures that have very high lot coverage and generally do not provide off street parking. The age of the structures and steep topography of the area combined with poor initial construction and subsequent rehabilitation have resulted in many units in these blocks being substandard not viable for further rehabilitation/investment. Redevelopment of the sites is further compromised because the sites are shallow limiting opportunities for rear yard parking and open space. Examples of these sites include:

Site 8a



571 Broadway



83-93 Library Street

- **Description** – 83-93 Library Street is two vacant parcels under separate ownership that total 9,941 square feet. The larger of the parcels, referred to here as 83 Library Street, is under the same ownership as 81 Library Street, a three family structure.
- **Assumptions** – For the purposes of this study, the two vacant parcels have been combined to increase the viability of an infill development and meet the minimum site area requirements under R2 and R3 zoning. The sites are shallow (65') so meeting parking demands will be challenging. The site slopes up dramatically from Library toward Marlboro Street suggesting that parking on the first floor with direct access from Library might be the most viable alternative.

Site 8b

- **Description** – 149 and 155 Marlboro and the Marlboro exposures of 152 and 160 Grove are all parcels under separate ownership and are under the 5,000 square foot threshold to be developed as-of-right under the R-2 and R-3 zoning (except portion of 160 Grove). Collectively the parcels total approximately 11,050 square feet.
- **Assumptions** – For the purposes of this study, the four parcels have been combined. This will provide the opportunity to meet the R2 minimum site area requirements as well as manage parking and open space requirements of denser alternatives that are problematic for the shallow sites in the Library/Marlboro/Grove transition blocks.

Site 8c

There are several single vacant sites that remain un or under developed and have a significant effect on the image of the area. Some are improved as open space for adjacent property owners and some are abandoned. Several fall under the 5,000 square foot minimum site area. Whereas some of the vacant sites can be combined with contiguous sites to increase viability, these sites are scattered so they must be examined independently to determine how the low, medium and high density standards would impact redevelopment efforts.

- **Description** – 41 Library - 35 feet x 65 feet (2,490 SF). 73 Library - 45 feet x 65 feet (2,900 SF). 97 Library - 28 feet x 65 feet (1,624 SF). All have areas under the minimum site area for R2 zoning.
- **Assumptions** - These are not contiguous parcels so they will be examined independently. Variances will be required for 41 and 73 under the R2 and R3 densities – 97 will not be developed under R2.

Deep Sites – The Bellingham/Grove Blocks are significantly deeper than the Library/Marlboro/Grove blocks providing the opportunity for rear yards and open space. Where contiguous vacant sites exist there is the opportunity to use that rear area for parking as well as the wider parcel can accommodate both structure and a side driveway. Examples of these sites include:

Site 9a

- **Description** – 153 Grove Street is 6,000 square foot lot with an existing three family structure that is in poor condition. The adjacent parcel is an undeveloped 6,000 square foot lot under separate ownership (owner of 167 Grove owns both properties).
- **Assumptions** - Each is large enough to be developed individually under R-2 and R-3 zoning but have been combined to maximize development potential and to address parking. This approach tests the feasibility of replacing an existing structure that is in poor condition under different to determine if the underlying land use controls

Site 9b

- **Description** – 115, 117 and 119 Grove Street are three contiguous vacant parcels, each owned by adjacent improved properties. One of the sites is over 3,500 square feet and two are just under and therefore could not be developed under R2 or R3 zoning. Combined, the three sites equal 11,660 square feet.
- **Assumptions** – The current zoning would not allow for redevelopment of two of these vacant lots as the site does not meet the R2 zoning threshold for site area per unit. For the purpose of this study, the sites have been combined to address R2 zoning, to maximize development potential and to manage parking demand.

- **Key Development Site Design Recommendations - R-3/Medium Density**

Preliminary analysis of the different density options - low 12 to 15 units per acre, medium 30 units per acre and high 50 units per acre – suggests that medium density with dimensional thresholds consistent with R-3 zoning is the most appropriate for new housing development in the Bellingham/Gerrish Neighborhood. To substantiate this approach, concept/ massing studies conforming to the three density alternatives were developed for the Key Development Sites.

These alternatives were reviewed with the Chelsea Planning Department and the Bellingham/Gerrish Study Steering Committee. The response from these reviews was that the density and building typologies shown under the medium density alternative best reflected their vision for this neighborhood. As a result, the report focuses on the R-3/Medium Density massing model. The Low Density and High Density descriptions and illustrations have been included in the Report's Appendix.



Illustrative Aerial View - Medium Density Massing Study

Site 1 - Standard Box

Flexibility provided by different unit types and the reduction in the site area per unit provide opportunities to increase the total units to 63. The limiting factor is parking – the required site area required to provide 1.5 spaces per unit (92 surfaces spaces) limits the total number of units that can be provided. Open space thresholds can still be achieved.

The benefit of the R-3 densities is that there are more options with regard to multi-family housing types. Multifamily detached structures that create the street patterns similar to the Bellingham Hill district can be developed and the densities allow for allocating the land and infrastructure costs across a larger base allowing developers to market units at prices affordable to Chelsea residents.

Site 2 - Sudbury Brass Works

Under the R-3 standards, the unit count can be increased to 36 (30 units per acre) while still maintaining the 1.5 parking spaces per unit. The concept plan shows stacked duplex unit in a townhouse arrangement – four story units two floors over two floors. Parking is in a shared interior lot and open space is provided as both as private open space associated with the units as well as a smaller public passive park on Highland Street.

The townhouse style establishes a strong streetwall and delineates public and semi-public areas. The two floors over two floors unit type creates building heights that are generally in line with the existing three families structures on Library Street because the first floor is actually elevated to deal with the grade change between Library and Marlboro.



Standard Box Site



Sudbury Brass Works Site



Shawmut Printing Site



625 Broadway Site

Site 3 - Shawmut Printing

This alternative shows a density and building pattern similar to the new residential construction opposite the Shawmut Printing site – stacked townhouse with parking on the first level and accessed from the back. A total of 18 units are provided with 24+ parking spaces. Open space is provided in front yards and some common area on Willow Street (extended).

This approach is more reflective of the new housing style being created on the former industrial properties – townhouse and walk-up style units. The unit density and parking thresholds for R-3 are met but there is limited open space and the 150 square foot of open space per unit may not be achieved

Site 4b – 625 Broadway

As noted under the assumptions, redevelopment of this site is contingent on gaining access through the CNHS/Family Dollar site. But 625 does provide the opportunity to mark the entrance to both Gerrish Avenue and the Downtown. An its proximity to the commuter rail station indicates it would be a TOD site. As a result, the proposed development does not follow the density guidelines. Rather, the report proposes a four to six story building over parking (open to the rail corridor). The four story structure would allow for 18 units and could still make a statement as a gateway structure. A six story building provides more of an opportunity to mark the entrance but creates a very dense development with over 25 units and a >100 units per acre.

Site 5 – 33 Gerrish Avenue

Density under these thresholds would allow up to 9 units on the site but the narrow site and dimensional limits would allow for no more than 8 units. This density allows limited open space and would have units oriented perpendicular from the street, similar to the CNHS development on Gerrish.

Site 6 – St. Rose Rectory

This option is a more aggressive utilization of the Rectory Site. To maximize the development potential, the Rectory is replaced with a mixed use building adding approximately 4,200 square feet of retail to Broadway and low rise housing above. This new building could also provide space for St. Rose Parish. A 2 – 2 ½ story parking garage could be provided to address neighborhood and possible commuter parking demands. Single loaded corridor apartments or townhouses could be developed along Gerrish Avenue and Library Street extending residential uses and screen the garage from these streets. The option would provide a total of 36 units of housing.



33 Gerrish Avenue Site



St. Rose Rectory Site



Site 8a



Site 8b

Site 7 – 571 Broadway

This density would allow the development of six units of housing – either stacked townhouses or walk-ups w/o retail at grade. An alternative could be retail at grade (4,000 square feet +/-) with three units above in a two or three story building. In either case, redevelopment at this density is marginally viable and without the ground floor retail does not support the urban design objectives advocated in this plan.

Site 8a – Infill Sites – 83-93 Library

This density would allow as many as ten units of housing however the parking and open space requirements could not be achieved. The massing diagram shows seven townhouse units with parking under (accessed from the back). The open space would have to be provided by porches and decks cantilevered over the driveways.

Site 8b – 149 and 155 Marlboro, 152 and 160 Grove

This density would allow would allow for 11 units but parking and open space limit this option to nine units with 14 parking spaces. A three family structure (mix of flats and town house) with parking under and behind is shown. This typology is similar to the three story, six family buildings current found on this block but with much less site coverage.

Site 8c - 41, 73 and 97 Library Street

Additional units would be located on the sites under this scenario depending on the site size. Providing open space and parking tend to be the more significant limiting factor. 97 Library could be developed but not to more than one unit and with multiple variances.

41 Library – two units of housing (stacked duplex) are possible but due to site width parking in side yard can't be accommodated. As a result a single family structure with parking under is the only option (same as R2).

73 Library – with relief from the minimum site area requirement, three units could be developed on this site. Again, meeting parking and open space requirements become restrictive suggesting that no more than two units are possible.



Site 8c



Site 9a – 153 Grove Street

Site 9a – 153 Grove Street

The combined site could accommodate 12 units as of right but the parking and open space requirements would limit the site to 8 units. This number can be achieved by either stacked townhouses that front Grove Street or multi-family structures oriented perpendicular to Grove with parking garages off a shared driveway.

Site 9b – 115, 117 and 119 Grove Street

A combined site could accommodate 11 units as-of-right but would require 16 parking spaces. To meet parking and open space requirements the diagram shows 8 units in a stacked townhouse type and 11 spaces.



Site 9b - 115, 117 and 119 Grove Street

▪ Housing Prototypes (resulting from Key Development Site Tests above)

Modern urban housing typologies exist that can fit any of the site conditions and zoning guidelines found in or proposed for the Gerrish/Bellingham Neighborhood. The study reviews these typologies in order to better understand the possible range of unit orientations and visualize what a neighborhood developed under the different densities and types might look like.

R-2 – Small Site/Infill Housing Prototypes

The Bellingham Street Neighborhood is in itself a microcosm of how to maximize low rise housing opportunities on small sites and in low cost construction. The problem is that the Grove/Marlboro/Library push the limits of viable neighborhoods when parking and open space needs are not met. Still, the fundamental design of these housing types can be seen in current urban housing styles – strong definition of public realm (streets), high land utilization and simple building technology resulting in lower construction cost. The current housing typologies balances these design objectives with providing open space and off-street parking creating a better quality of life.

The study includes row house and townhouse examples although these styles are not allowed under R-2 zoning. These designs do meet the quality of life objectives advocated for under low density housing (>20 units per acre). These low rise housing solutions that comply with the fundamental requirements of R-2 Zoning include:

- Single, Two and Three Family Structures with Side Yard Parking
- Single, Two and Three Family Structures with Parking Under
- Attached Single Family (Row House) with Parking in rear yard.
- Attached Single Family (Row House) with Parking under

Medium Density Housing Prototypes

Current land values, construction and infrastructure costs have necessitated the use of higher density housing types. While townhouses and row houses have been a mainstay of urban neighborhoods for over a century, these typologies have been adapted to meet more contemporary sizes as well as parking and open space demands. The R-3 zoning provides the flexibility to use this attached housing type and a lower site area per unit requirement to achieve higher densities than the R-2 zoning while still addressing quality of life issues such as parking and open space. The housing types included under this medium density model include:

- Attached Stacked Townhouse (flats) with surface parking/over parking
- Attached Stacked Duplex (two over two)
- Multi-Family with surface parking and over parking

High Density Mid-Rise Housing Prototypes

Housing densities in the Bellingham Street Neighborhood reach up to 50 units per acre particularly in the Grove/Marlboro/Library blocks. These densities are also being proposed and under construction in the emerging Gerrish Street sub-district. These densities are difficult to achieve without either mid-rise construction (double loaded corridor buildings) or compromising parking and open space. These compromises negatively impact the Quality of Life goals that are the focus of this study and the mid-rise housing typologies generally don't relate to the housing style currently found in the traditional

Photo Analog Typologies



Three Family - Parking under
R-2 - 12-15 units/acre



Two Family with Surface Parking
R-2 - 10-15 units/acre



Single / Two Family with Parking under
R-2 - 10-15 units/acre



Single Family Rowhouse with Garage
R-2 - >20 units/acre



Three Family over Parking
R-2 - 10-15 units/acre



Single Family / Two Family Detached
R-2 - 20 units/acre

Photo Analog Typologies



Townhouse - Three story with Parking under
R-3 - 10-15 units/acre



Single Family Townhouse over Parking
R-3 - 20 units/acre



Single Family Townhouse
R-3 - 20 units/acre



Single Townhouse
R-3 20+ units/acre



Row House / Stacked
R-3 - 20 units/acre



Multifamily over Parking
R-3 - 30 units/acre

Photo Analog Typologies



4 Story Multi-Family
40 units/acre



4 Story Walk-Up Apartments
50+ units/acre



Four Story Multi-Family
50 units/acre



Multi-Family over Retail
50 units/acre



Multi-Family High Rise
50 units/acre



Multi-Family Mid Rise
50 units/acre

neighborhoods of Chelsea including Bellingham Street.

- Four Story Walk-up Apartments
- Four Story Multi-Family over parking
- Multi-Family over Retail
- Multi-Family Mid-Rise
- Multi Family High-Rise

High Density Housing Types for Mixed Use Developments on Broadway

The Broadway Corridor provides the opportunity for a higher density, mixed use housing type. Here, the objective is to take full advantage opportunities available on urban sites including proximity to mass transit and commercial activity to build high density housing. It is not ideal for families but does meet the needs of urban dwellers who don't need cars or private open space.

- Multi-Family Mid-Rise
- Multi Family High-Rise

V. TRANSPORTATION RECOMMENDATIONS

▪ Traffic Impacts of Gerrish/Bellingham Development Alternatives.

Traffic generation estimates were conducted for the three density build-out alternatives created for the Bellingham/Gerrish Neighborhood Action Plan to determine if any would have a significant impact on local levels of service. The auto trip numbers are included in the table below.

Auto trips:

Time Period	Residential	Retail	Total
R-2			
Daily	428	-	428
a.m. Peak Hour	32	-	32
p.m. Peak Hour	39	-	39
R-3			
Daily	955	209	1,164
a.m. Peak Hour	73	3	76
p.m. Peak Hour	88	12	100
High Density			
Daily	1,533	210	1,743
a.m. Peak Hour	117	3	120
p.m. Peak Hour	142	12	154

In general, the residential trips are low for all the residential development with the retail in the R-3 and High-Density scenarios making a more significant impact proportionally on the total trips. The trips generated by the three scenarios represent 3%, 9% and 14% of the traffic on Broadway, respectively. The 14% number is a little high, but the R-3 scenario adding 9% is better.

Although information on existing levels of service at the Broadway intersections is not available, level of service analysis is usually required when projected volumes from new development increase existing volumes by 10% or more. Therefore, the Medium Density/R-3 build-out (nine percent increase on Broadway traffic) would have marginal impact on traffic volumes in the Broadway corridor but not significant enough to require mitigation. This supports the general study findings that the R-3 build-outs would create manageable impacts and would meet the quality of life standards set for this neighborhood.

▪ Parking Requirements for New Development

Smart Growth principles and model TOD bylaws in Massachusetts call for parking ratios to be reduced from what is specified in the existing zoning by-law. The purpose is twofold: to support use of pedestrian-friendly environments and to minimize the amount of land and other resources dedicated to automobiles, thereby making land available for housing or open space. The existing parking requirement in the Gerrish Avenue/Bellingham Street area is 1.5 spaces per unit. Several factors, including Massachusetts' Smart Growth principles, support reducing the ratio to 1.0 space per unit. According to

the 2000 U.S. Census, current patterns of auto ownership in the area is relatively low with 17% of Block Group 1601 households reporting having no car and 27% reporting having only 1 car available. In addition, recent developments (CNHS and Mitchell Properties) in the area have proposed fewer parking than required by zoning, coming in at about 1.0 space per unit. This was justified because the new developments were affordable and as such had lower automobile usage.

▪ **Street Travel Pattern Revisions / New Street Connectors**

The Gerrish Avenue/Bellingham Street area is characterized by long blocks with few cross streets connecting Bellingham Street, Grove Street, Marlboro Street, Library Street, and Gerrish Avenue. Although circulation would be enhanced if more connections between the streets existed, creating additional cross streets would be difficult to accomplish given the fact that there are no opportunities to punch through a street without significant property impacts and takings. Even if right-of-way for a short connector street were available, the topography would make implementation difficult.

However, the neighborhood is largely residential, and the industrial part of the study area is transitioning to residential, the fact which lessens the importance of multiple cross-street connections. If the neighborhood had a lot of commercial or retail development, circulation would be enhanced greatly by more connecting streets. The residential nature of the neighborhood lessens the need for additional cross streets, and given the difficulty of creating them, pursuing more connecting streets is not considered a priority.

One vehicular street discontinuity that could be relatively easily rectified is creating a connection between Library Street and Marlboro Street at Willow Street. Bounded on two sides by rail corridors, pedestrian circulation in the neighborhood is impeded by these barriers. Extending Willow Street to link these streets would improve circulation, particularly for those headed east on Bellingham Street to the industrial area. Additional pedestrian connections would also improve access to the industrial area and to the MBTA Commuter Rail Station. Extending Library Street as a pedestrian/bicycle-only connector across the CSX Rail right-of-way to the Crescent Street industrial area to the east would improve access and help promote use of alternative modes. Additionally, access to the MBTA commuter rail stop should be improved. In the peak hours, six trains stop at the Chelsea stop, providing better-than-average commuter rail service. Improving the pedestrian connection from Broadway to the MBTA Commuter Rail Station at Arlington and Sixth Street could make the one-half mile walk from the Gerrish Avenue/Bellingham Street neighborhood more attractive

▪ **Circumferential T Station Siting Recommendations**

The Chelsea Planning Department has been participating in the Urban Ring studies to determine how this new service might benefit the City of Chelsea. During the preliminary discussions regarding station locations, there has been an expressed preference for locating a stop at Griffin Way and Bellingham Street. This Study has noted that there would be urban design benefits to the Bellingham/Gerrish Neighborhood if another stop were added along the CSX Rail Corridor at Highland.

The problem is that the Highland Street location is too close to the existing Commuter Railroad Station and Griffin Way (less than 2,000 feet) – too close by the Urban Ring siting standards for another station. However, the MBTA's estimates for boardings at the Griffin Way/Bellingham Street stop are very low—200 boardings per day—suggesting that there may be a benefit to relocating that Urban Ring Stop. The other factor to consider is that the distance Gerrish Avenue residents would have to walk to either the Griffin Way stop or a relocated Highland stop is small and manageable. If the ROW is improved for a trail which would be replaced by BRT, a pedestrian way could be created to replace the trail and maintain access from Highland or Griffin Way to the Gerrish Avenue Neighborhood.

▪ Pedestrian & Bike Pathways

Improving conditions for pedestrians and cyclists is critical to helping build this area as a neighborhood with people and eyes on the street. Transforming the abandoned CSX-owned rail corridor from a blighted divider into an attractive and functional transportation element should be done in the short term. Although planned as a key part of the proposed Urban Ring Circumferential Bus Rapid Transit (BRT) Line, final design will probably not be underway until 2010 and implementation several years later. Interim uses for this abandoned rail corridor should be pursued now.

The "Chelsea Urban Ring Path" has been proposed as part of a secondary network to provide connections between the proposed "Bay State Greenway," a 740-mile network of shared-use paths in Massachusetts (Draft 2007 Massachusetts Bicycle Transportation Plan). In the short term, this proposed path should be planned and implemented to serve as both a landscaped buffer to visually shield the new residential development along Gerrish Avenue from the industrial areas to the north, and as a shared-use path providing connections to the Chelsea Creek waterfront to the east and the commuter rail station to the west.

When the right-of-way is needed for implementation of Phase 2 of the Urban Ring project for a Bus Rapid Transit (BRT) line, right-of-way constraints, particularly under the Broadway Overpass, will require more detailed analysis to determine how to maintain the continuity of the shared-use facility.

VI. PUBLIC REALM PLAN

As part of the revitalization of the Gerrish / Bellingham neighborhood, a public realm armature of new streetscapes, parks, roadway improvements, utility improvements and a possible new pedestrian / bikeway should all be considered to enhance the physical setting for all the new development occurring and to provide needed open spaces for the many residents, both current and new, who will live in the neighborhood in the future. In fact, as phase one of this wider Public Realm Plan, new street, utility, and streetscapes are already scheduled to be constructed along Gerrish Avenue, Library Street and a portion of Highland Street in the fall of 2007 and spring of 2008.

Additionally, in the future, the abandoned CSX-owned rail corridor, which defines the northern boundary of the Study Area, is planned as the future right-of-way for their Urban Ring Circumferential Bus Rapid Transit (BRT) Line. Although, its implementation may be many years into the future, plans for this abandoned rail corridor should be considered now including interim uses.

In the short to intermediate term, the CSX rail corridor should be planned as both a landscaped buffer to visually shield the new residential development along Gerrish Avenue from the industrial areas to the north, and possibly as a sub-regional pedestrian and bike linear pathway connecting the Gerrish Bellingham neighborhood to the Chelsea Creek waterfront to the east and the commuter rail station to the west.

In the longer term, the right-of-way is scheduled to be used as a Bus Rapid Transit (BRT) line as part of the regional Urban Ring transit project. If and when this occurs, there may be several dimensional choke-points in the right-of-way width (particularly that portion of the right-of-way under the Broadway Overpass where the commuter rail tracks converge with the abandoned right-of-way) that may not allow the inclusion of the commuter rail tracks, the BRT lanes, and a bikeway to all fit. If this proves to be the case, the pedestrian / bike path can be terminated at the Broadway Overpass. More detailed studies will be needed to confirm exact dimensions.

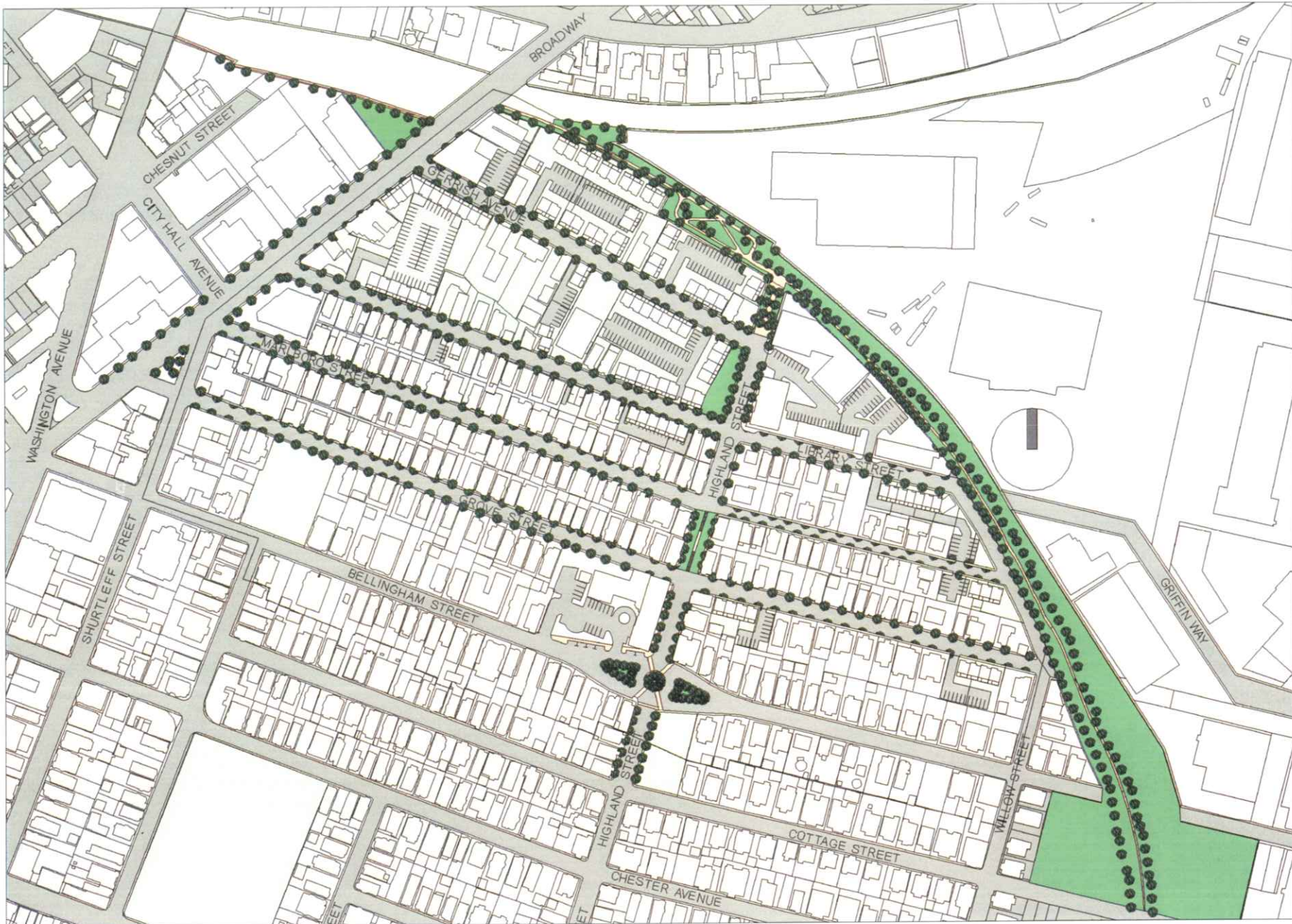
▪ Community Open Space Improvements

New community open spaces, parks and playgrounds will serve as attractive amenities to the expanding residential community in the Gerrish Avenue / Bellingham Street neighborhood area and attract residents from both neighborhoods to a new 'common meeting ground'.

New Highland Street Green Spine & Adjacent Open Spaces

Four new or improved suggested open spaces and parks are proposed to be organized around a new linear 'Highland Street Green Spine' connecting the Bellingham and Gerrish neighborhoods.

Highland Street is the only connecting spine viably linking the Bellingham and Gerrish neighborhoods – both visually and functionally - as a pedestrian spine. If the four new green open spaces discussed below (Bellingham Square Green, Highland Street Staircase, Sudbury Brass Park, and Foot of Highland Street Gateway Plaza) were all constructed along Highland, that street would become a major 'green spine' linking the two neighborhoods and the wider community with park amenities. Therefore, an attractive Highland Street streetscape plan should be developed to reinforce this green spine neighborhood connector.



Bellingham/Gerrish Neighborhood Public Realm Plan

1. Bellingham Square Green at Bellingham Hill

The Bellingham Street / Highland Street intersection atop Bellingham Hill, once a landscaped oasis, should be restored as a green space. Now devoted entirely to asphalt and parking, this hilltop site should be restored to a place of civic and neighborhood importance. Some or all of the neighborhood parking now located in the middle of this intersection will have to be replaced elsewhere.

The plan illustrated shows a circular green space in the middle of the intersection around which traffic can circulate. A vertical obelisk - shaped marker is shown in the center of the circular green space at the top of the hill to serve as a visual landmark that can be seen at a distance.

Some of the 27 parking spaces now located in the middle of the intersection have been relocated to the curbside parking lanes to either side on Bellingham Street. However, not all of the existing parking spaces have been replaced on a one-for-one basis, thereby resulting in a net reduction of 11 parking spaces. Residents of Bellingham Hill will have to judge whether the provision of new green space justifies the removal of eleven existing parking spaces.



2. Revitalized Highland Street Staircase

The pedestrian staircase built several years ago along Highland Street on the very steep-slope block between Grove and Marlboro allows pedestrians to travel from Bellingham Hill to the new Gerrish Avenue neighborhood. Conceptual design plans now exist to visually enhance this pedestrian staircase with new attractive landscaping and new seating to either side of the staircase.

3. Sudbury Brass Park at the now vacant Sudbury Brass Goods Company Site

A new park or open space, combined with surrounding housing development, is proposed along the western side of Highland Street on the block between Gerrish Street and Library Street. This sloped site could become a highly visible park and green space along the primary Highland Street 'green spine' that would draw residents from both Bellingham Hill and the new Gerrish Avenue neighborhood. It would provide much needed new open space for this rapidly developing community. The exact design and programming of this new park – whether it is to be an active or passive park - needs to be discussed with neighborhood residents. Because new housing would line the western edge of the park, the park would be under continual residential observation, thereby providing greater safety to users of this park. The design and programming of this park should complement rather than replicate other existing parks and playgrounds already in the neighborhood. It should be carefully programmed so it does not become a 'hangout' for unruly or unlawful behavior.

4. 'Foot of Highland' Gateway Plaza or Park

If either a new pedestrian / bike path is built upon the abandoned CSX rail right-of-way, or, a future Urban Ring Station is eventually re-sited to the foot of Highland Street, a new entry plaza / park in the short block between Gerrish Avenue and the rail right-of-way would serve as a 'gateway' plaza to both the



Concept for Highland Street Stair by SAS Designs

Highland Street 'green spine' and the Gerrish Avenue / Bellingham Hill neighborhoods in one direction as well as an entry to the linear pedestrian / bike path or Urban Ring Station in the other direction.

▪ Reuse Options for the Abandoned CSX Rail Right of Way

At present, the long term plan for the use of the right-of-way is for new MBTA's Urban Ring BRT lanes. However, the completion of that plan may be many years off. In the meantime, suggestions have been made to convert the abandoned right-of-way to a new linear pedestrian bike path that would allow neighborhood residents to walk from the Gerrish Bellingham neighborhood to the Chelsea commuter rail station to the west or the Chelsea Creek Waterfront to the east.

Whether the right-of-way is eventually converted to BRT lanes or remains a pedestrian bike path for many years, it should also be landscaped as both a visual buffer between the new Gerrish Avenue neighborhood and the industrial area to the immediate north.



1. Short to Intermediate Range Plan: CSX Rail Right of Way Pedestrian / Bike Path and Green Landscaped Buffer

The CSX rail right-of-way should be designed, at least for the foreseeable future, as both a pedestrian / bike path and a green landscaped spine to visually buffer the new Gerrish Avenue residential neighborhood from industrial properties to the other side of the right-of-way. Our illustration shows how a pedestrian bike path could be designed. Primary access to the pedestrian bike path from the Gerrish Avenue neighborhood would be from the foot of Highland Street. The pedestrian/bike path would continue to the west to the Chelsea commuter rail station. It would also continue to the east to the waterfront. Also, a number of people on the pedestrian bike path may want to gain direct access to Broadway to go to retail and government destinations located there. We have provided an option for that, although some private property takings will be required to achieve his option

There is also some concern that a pedestrian / bike path traveling within the right-of-way beneath the Broadway Overpass would be in a poorly visible 'trench' far below street elevation. Users of this path would not be easily visible to passing motorists or pedestrians on Broadway. Therefore, this pathway may not feel safe, especially at night. This corridor should be well lit.

This concern for pedestrian / bicyclist safety has led to providing an additional access point or escape path from the bike path directly to the Broadway sidewalk atop the Broadway overpass. Such an additional access point could be provided from atop the Broadway overpass along a sloped pedestrian / bike path ramp down to the right-of-way. However, providing this new access will require the acquisition of portions of some private parcels and would require the construction of vertical retaining walls to support the sloped ramp.

A closer examination of this corridor will determine if there is adequate right-of-way width at certain 'choke points' to eventually provide pedestrian / bikeway access along this spine plus a landscaped buffer and the Urban Ring. Clearly, the City will need to begin discussions with the MBTA and CSX to accomplish this project.

2. Long Range Plan: CSX Rail Right of Way as Urban Ring BRT Lanes and Green Landscaped Buffer

In the long run, the CSX rail right of way may be converted to BRT lanes for the Urban Ring. If this happens, we suggest that a new Urban Ring Station be added or relocated to the foot of the Highland Street 'Green Spine'. This location would provide the most convenient access for neighborhood residents and would reinforce the Highland Street spine as the major north-south internal travel path within the neighborhood. (The Broadway commercial /civic corridor would remain the two neighborhoods' primary destination, however, reinforcing the need to make east-west auto and pedestrian flows along Gerrish, Library, Marlboro and Grove streets pleasant and attractive.)

A major question arises, should the BRT lanes eventually be built, as to whether the BRT lanes, a significant landscape buffer, the pedestrian bike path, and (near the Broadway overpass) the commuter rail tracks can all fit in harmony with each other within the right-of-way. It appears to us that there are two narrow 'choke points' within the right-of-way that may make it difficult to fit all these desired components simultaneously (unless some private property can be added to the width).

▪ Other Street and Streetscape Improvements

A variety of other street and streetscape improvements can be envisioned for the Bellingham Gerrish neighborhoods.

1. East / West Street and Streetscape Improvements Linking to the Broadway Corridor 'Common Meeting Ground'

As discussed above, the Broadway Corridor could become the two neighborhoods' primary 'meeting ground'. Therefore, the east-west neighborhood streets leading to Broadway become primary connectors of the neighborhoods. Therefore each of these east-west streets should be explored for new attractive streetscape improvement opportunities.

2. Willow Street Extension

Willow Street should be extended to link Library and Marlboro for better neighborhood interconnectivity as is now planned by the City as part of the Box Factory redevelopment.

3. Extend Library St. across the Rail ROW to Connect with Griffin Way Only as a Pedestrian Way

Some have suggested that Library Street not be extended as a vehicular way eastward across the rail right-of-way to connect with Griffin Way in the industrial area to the east. We suggest that Library Street be extended across the rail ROW to the industrial area along Griffin Way only as a pedestrian way. If it were to be designed as a vehicular link as well, it is only likely to draw incompatible industrial area destined traffic through the redeveloping Gerrish Avenue residential community.

VIII. IMPLEMENTATION

▪ Re-Zoning Strategies

Several observations can be taken from the massing studies – observations that would influence whether the base zoning should be changed as a way to regulate future development of the Gerrish Avenue sub-district.

- Adhering to the existing R-2 zoning would severely impact the feasibility of developing housing on the existing industrial properties. In a highest and best use comparison, the low density R-2 housing rules do not create the economic incentive required to justify replacing the existing light industrial uses. The properties are more valuable remaining light industrial (grandfathered) versus being redeveloped as residential at 12 to 15 units per acre as the R-2 Zoning permits.
- Likewise, adhering to the existing R-2 zoning would continue to provide a disincentive for replacing existing blighted or underutilized sites with appropriately scaled multi-family housing. Generally, existing properties are built on small sites and have high site coverage and densities.
- Both the R-2 standards and the High Density (50 units per acre) typologies create street and building patterns that are much different from the traditional Chelsea neighborhoods. These patterns were not received well by the Study Steering Committee, municipal staff, and developers. The detached structures allowed under R-2 were not economically feasible and had limited market potential and the High Density typologies would further compound the existing problems of limited parking and overcrowding
- The density permitted in the R-3 zoning district allows for housing typologies that reflect current urban housing trends including townhouse, stacked duplex and other moderate density housing construction typologies. These styles related well to the existing Bellingham Street Neighborhood style and massing and can be adapted to address the existing parking and open space shortfalls.

In summary, the R-2 zoning dimensional standards are so low that they have created too much non-conformity and therefore provide no incentives for replacement or in-fill development of the existing multifamily homes. Although the densities permitted under R-3 are more similar to the existing context, dimensional standards do not allow for certain housing typologies that work best on these urban sites including townhouses. Finally, the 40-R zoning has been used effectively in the Gerrish Avenue sub-district but becomes difficult to manage when applied to the small parcels of the Transition Blocks. An alternative is to create a new zoning designation that matches the unique dimensional conditions of the Bellingham/Gerrish Neighborhood. A new district, R-35, could provide the controls and flexibility needed to encourage appropriate scaled infill development at the densities of R-3 but at dimensional standards which are more appropriate for the neighborhood while providing at the same time some new state 40R and 40S funding for infrastructure improvements.

Zoning Districts	Residence R-1.	Residence R-2.		Residence R-3	Proposed R-35
	1-2 Units (R-1)	1-3 Units (R-2)	Apartment	(R3)	Multi-Family
Minimum Lot Area					
Per dwelling Unit	3500	3500	3000	950	1,250
But not less than	7500	5000	10,500	5000	3,000
Maximum Density	NA	NA	NA	12 units per acre; 45 by SP	35 units per acre
Minimum Density	NA	NA	NA	NA	NA
Minimum Frontage (ft) (4)	60	40	60	40	30
Maximum Floor Area Ratio (2)					
Standard	NA	NA	1	1	2
Bonus	NA	NA	2	1.5	N/A
Maximum Height (ft) (5)	35	35	40	36; 60 by SP	40
Maximum Number of Stories	3	3	4	3; 5 by SP	4
Required Yards (ft) (7)					
Front Yard	20	10	10	10 ⁽¹⁵⁾	5
Side Yard	1/4 the height of the building (13)	1/4 the height of the building (13)	1/4 the height of the building (13)	1/4 the height of the building (13)	0
Rear Yard	25	20	20	20	20
Max. % of Lot Covered	30	40	40	40	50
Minimum Usable Open Space per family (s.f.)	500	300	150(9)	150	150
Parking				1.5 per unit (2 brm) 1 per each add'n brm	1.25 per unit

Zoning Table with Proposed R-35 Standards

New R-35 Zoning District

As noted, a new zoning district should be created for the Bellingham/Gerrish neighborhood providing density limits that keep large site and infill development compatible to the scale of the existing neighborhood while supporting parking and open space. The R-35 dimensional standards would also allow for townhouse housing typologies to be developed as of right. Specifically, the new district would:

- Set the minimum site area for a developable site at 3,000 square feet to allow more of the existing Library/Marlboro/Grove properties to be redeveloped as of right.
- Set the site area per unit requirement at 1,250 square feet to allow for densities up to 35 units per acre.
- Maintain the R-2 setback requirements for rear yards at 20 feet to insure the high site coverage ratios currently found on Marlboro and Library are not continued.
- Allow for an FAR of 2 and forty foot (40') building height to allow for multi-family, stacked townhouse typologies.
- Establish a zero side yard to allow for townhouse and row house structures, viable alternative for narrow sites and an opportunity to increase construction efficiency on both the larger and smaller sites.
- Height and building type standards should be established that insure new development is compatible to the massing, proportion and detailing of the existing multi-family housing.

Expand 40R Overlay

New housing development planned for the Gerrish Avenue (projects on the Janus and Atlas Industrial Sites) have utilized the Commonwealth's Chapter 40R Smart Growth Process to secure development relief. Chapter 40R presents a viable alternative to the zoning variance process that is beneficial to both the development proponents and the City. Expanding the boundary of the 40R Overlay District in the Gerrish Avenue sub-district with design standards (guidelines) recommended for the R-35 district is an alternative strategy for bringing the zoning in line with the desired development pattern for the district.

▪ Infrastructure Funding

Potential Infrastructure & Parks Funding Sources

1) DIF / District Improvement Financing/ Tax Increment Financing (TIF)

With the approval of the Commonwealth, cities may locally establish discreet districts (DIF) within which any incremental increase in property tax revenues due to new private development can be specifically dedicated to financing public improvements within the District (as opposed to flowing into the city's General Fund). Alternatively, a public-private agreement can be established with a specific developer to provide public improvements as a part of a development project in exchange for a reduction in taxes. TIF offers tax breaks to developers, while DIF channels tax dollars into targeted redevelopment districts.

2) Chapter 90: State funds for local road construction

This funding is open to all 351 cities and towns in Massachusetts although there is limited funding and does not provide a maintenance program.

3) PWED / Public Works and Economic Development (EOT)

Promotes economic development through investments in streets, sidewalks and other infrastructure.

4) Community Development Action Grants (DHCD)

Program to help stimulate economic development that will leverage private investments. Eligible activities include public improvements of publicly owned properties and land for streets, sidewalks, rail spurs, water and sewer lines.

5) Community Development Block Grant (DHCD)

As a Mini-Entitlement Community, The City of Chelsea is eligible to receive \$600,000-\$800,000 annually for a variety of housing, economic development , infrastructure and social service activities in support of low and moderate individuals and the removal of slums and blight.

6) Downtown Initiative (DHCD)

Provides direct and indirect assistance on all topics of downtown revitalization (Broadway), including streetscapes, transportation and parking, and housing.

7) Urban Self Help Program (EOEA –DSC)

Assists cities to acquire and develop land for parks and outdoor recreation. City must own the site where the park is to be built.

8) FHWA Transportation Enhancement Program (EOT)

Can be used for non-traditional surface transportation projects – including pedestrian and bicycle facilities.

9) Chapter 40R

Financial rewards to communities that adopt special zoning districts allowing as-of-right high density residential development. Upon approval of a district a municipality receives a zoning incentive payment. The amount of the incentive payment is based on the potential number of new housing units that can be constructed in the district. This payment could be used to fund infrastructure improvements within the district.

▪ Housing Stabilization Program

Overview/Need:

Concurrent with the renovation and development of some 120 units of new housing along Gerrish Avenue is the need to stabilize a predominately wood frame, multifamily residential neighborhood of two and three family homes. This neighborhood extends along Library, Marlboro, Grove and Bellingham Streets to the top of Bellingham Hill. This dense, residential area was largely developed prior to 1930. Almost one half of the 500 units are located in three family structures, with the bulk of the properties located on lots of 3,000 to 6,000 sq ft. The vast majority of the homes are owner occupied with long time owners and many immigrants who occupy properties as both owners and renters.

The following indicators highlight the need for a housing stabilization and code enforcement program in the Gerrish-Bellingham neighborhood:

- Exterior surveys by the consultants in May, 2007 indicate that 50% of the properties are in fair condition and close to 10% are in poor condition.

- The City Housing Rehabilitation Staff indicated that only about 25% of the units in the study area have been de-leaded.
- Dwelling units and households tend to be larger than average in Chelsea as indicated by : 4.02 persons per household in the neighborhood vs. 2.91 for the City of Chelsea. In fact, 16% of the households have 7 or more individuals.
- Almost one-half of the residents are foreign born; over one half of the residents classify themselves as of Hispanic or Latino origin.
- The 2000 census indicated that median household income was substantially below that of the City of Chelsea: \$24,000 compared to \$36,000.
- Approximately 30% of the families in the year 2000 reported incomes below the poverty level.
- A survey of the Chelsea housing market indicated that 35% of the households were facing a rental burden- paying at least 35% of their income for housing . It is likely that the rental burden is substantially higher in the study area.
- Foreclosures are a growing problem in the neighborhood. Eleven were reported in 2006 and 2007, concentrated on Marlboro Street.
- A comparison of the costs to rehabilitate exiting housing versus the cost of new construction indicates the benefits of preserving the large two and three family homes within the study area. Renovation costs to bring the property to code are estimated to be \$50,000 to \$120,000 per unit compared to \$250,000 to 275,000 per unit for the costs of new construction.

Problem Properties Committee:

In order to understand and track the problems in the Housing Stabilization Area, a Problem Properties Committee was formed by the Planning Department. This Committee includes representatives of the Inspection Services Department, the Director of Quality of Life, a Code Inspector concerned with fire related hazards, trash, and other health and safety concerns, the Health Department and the Police Department. The Problem Properties Committee has scheduled periodic walks to note and address neighborhood problems during the summer of 2007.

Comments from the Problem Properties Committee about their concerns for the neighborhood are listed below :

- This is one of the densest residential neighborhoods in the City. The narrow side yards and dense site coverage necessitate well maintained properties to protect against fires.
- Overcrowding is a growing problem, partially as a consequence of foreclosures and sub-prime financing that puts pressure on property owners to increase their income. The Code Enforcement Staff report that many units have full families occupying a single bedroom, each with their own lock. Kitchens in these units can contain three refrigerators.
- Over-occupancy is a threat to public health and safety.
- The neighborhood is the locus of a significant immigrant population. It has been estimated that at least 80% of the residents are from Central America.
- Given the steep slope and aging infrastructure of the neighborhood, a number of house, stair, and lot foundations have given way. A recent survey indicated that 13 properties within the study area have a deteriorated retaining wall along the street frontage.
- The City's Housing Inspection Department carries out periodic inspections for Certificate of Habitability when units turn over and Certificate of Inspection every 5 years for multifamily structures with 3 or more units. These inspections are of insufficient frequency to address the code problems and over-occupancy.

1 Bonz and Company, Inc. Residential Market Study, June 2005, page, 43.

2 Meeting with Code Enforcement Staff/Problem Properties Committee, June 12, 2007

3 A Certificate of Inspection for compliance with the Building Code is issued by the Code Enforcement Staff every 5 years to all property owners of structures with 3 or more units. Issues of egress and smoke detectors are of primary concern; a sample of units is inspected. A Certificate of Habitability is issued on a voluntary basis to homeowners when rental units turn over. This certificate is based upon Chapter II of the Massachusetts State Sanitary Code. Overcrowding, plumbing and wiring are of concern in this inspection.

The following State Sanitary and Building Code Issues were identified by the City's Housing Code staff:

Building Interiors:

Property owners have over the years, as noted by a review of Building Permit applications, upgraded the unit interiors with new bathrooms, kitchens, and improved wiring. Wiring continues to be a problem and, while many properties have removed lead paint, it also continues to be an issue in the study area. Likewise, especially with over-crowding, it is important to ensure that there is proper egress from all units and that locks are not placed on all the bedrooms.

- Electrical
- Egress
- Plumbing
- Lead Paint

Building Exteriors:

A windshield survey of the neighborhood shows that the condition of the majority of properties in the district is average to poor. Given the wood frame construction, the age and moderate income of most owners, it is apparent that it is difficult to keep up with the need for paint, roofs, gutters, exterior stairs and porches. Investment on building exteriors would give the district a much more positive impression.

- Building conditions: roof, gutters, paint
- Retaining walls
- Exterior-stairs and porches

Board of Health Issues:

Health Department Inspections are coordinated with Building Code Issues. One of the department's major concerns in residential areas is rodent infestation.

Quality of Life Issues:

Junk cars, improperly stored trash, graffiti, and general litter are constant concerns in this over-crowded neighborhood. The former Fire Chief, Joe Siewko has been appointed the Quality of Life Officer. He is charged, as a member of the Inspectional Services Department, with addressing the above issues.

Financing Home Improvements:

Given the income limitations of the tenants and homeowners, financial assistance is needed to leverage improvements to the existing housing stock. As the City has a limited amount of funding for housing rehabilitation, a variety of public and private funding sources will be needed to address the range of problems in the Gerrish-Bellingham neighborhood.

Table 1 in Part 3 of the Program Design heading in this section identifies available funding sources for housing rehabilitation in the neighborhood. Program requirements are provided on these funding sources in the corresponding table in the Appendix.

Get the Lead Out, a low-cost financing program sponsored by MassHousing for lead paint removal, and the Federal Community Development Block Grant (CDBG) program are the two largest potential sources of funding. A third program run by the Chelsea Human Services Collaborative provides local outreach to the neighborhood and leverage local and homeowner resources. While there are a variety of "retail" housing rehabilitation programs sponsored by banks and government organizations, these have not been able to attract the interest of local homeowners.

Get the Lead Out offers homeowners, depending on their income eligibility status, loans as low as 0% interest with deferred payment until the sale, transfer, or refinancing of their property. Loan amounts are capped at \$30,000 for single family homes, \$35,000 for two-family, \$40,000 for three-family, and \$45,000 for four-family. Borrowing fees to MassHousing and the local rehabilitation agency are relatively low at no more than \$1,150 to be paid at the time of closing and incorporated into the loan amount. For investors, loan terms run from 5 to 15 years.

The Chelsea Planning and Economic Development Department assists homeowners in researching and initiating loans from Get the Lead Out. To date this program has been used sparingly by Chelsea homeowners, who often view de-leading as an unnecessary and time-consuming process with few incentives. In contrast, complemented by outreach, education, and other funding sources, Get the Lead Out can be a catalyst for housing improvement in the neighborhood. De-leading funds will cover both interior and exterior re-paintings. As more homeowners begin to take advantage of this program, the hope is that a sense of pride will form around the appearance of the neighborhood.

The Federal Community Development Block Grant (CDBG) program is a second source of funding with some promise for housing rehabilitation. CDBG funds, disbursed through the City Community Development Department, Chelsea Restoration, and Chelsea Neighborhood Housing Services (CNHS), could be used to implement a code enforcement program.

There are substantial limitations in the availability and use of CDBG funding. Because Chelsea is a mini-entitlement community, it is only eligible for a limited amount of guaranteed aid, additional aid is distributed through a competitive application process with other cities and towns in the state. The City currently receives between \$600,000 to \$800,000 annually and this is utilized by the City and a various non-profit groups for a variety of housing programs, infrastructure improvements and social services throughout Chelsea.

It has been estimated that rehabilitation costs range from \$50,000 to \$120,000 per unit. Exterior repairs, alone, could easily amount to some \$75,000 per structure for painting, roofs, and porches. The experience of CNHS is that they are only able to rehabilitate 5 to 10 units per year using some \$500,000 in annual funding from DHCD for 30 year loans to homeowners at 2% below prime rate. A Code enforcement program targeted at the 230 structures and 500 units in the Garish Bellingham Neighborhood could be in the tens of millions of dollars. Furthermore, Federal requirements limit the use of CDBG sponsored housing rehabilitation to interior improvements prior to funding exterior improvements. On the other hand, CDBG funds can be used for grants to homeowners who are determined to be "unbankable" or who are of low income. In addition, CDBG funds can be used for loans to absentee investor owners.

A limited amount of CDBG funding, estimated to be around \$250,000 annually, could, if the City makes this a priority, be allocated to a pilot program in the Gerrish Bellingham area. The funding would be divided between public improvements and a loan and grant program. The loan and grant program would focus on exterior improvements while utilizing "Get the Lead Out" funding for interior as well as exterior renovation.

These funding sources could be used in combination with several other targeted resources including:

1. The Chelsea Neighborhood Services Loan and Grant Program
2. Applications to DHCD for Housing Development Support and HOME funding
3. The First Time Homebuyer and Soft Second Program operated by Chelsea Restoration.
4. Foreclosed properties could be matched to one or another of the preceding programs and renovated and sold to First Time Homebuyers.

Program Design:

Given the amount of housing in fair and poor condition, the need for an inspection and community building program, as well as substantial grant funding, a housing stabilization program for the Gerrish-Bellingham Area must contain a combination of the following nine elements:

1. Identification of a reasonably sized Target Area-(possibly Library and Marlborough Streets)
2. Community building Outreach and Education to homeowners and immigrants
3. Formation of a "Quality of Life" Housing Stabilization Committee of City and non profit staff concerned with the neighborhood conditions
4. "Walk Around" Code Enforcement staff to undertake exterior inspections of properties to:
 - a. Identify the "Five Worst" Problem properties within the Target Area
 - b. Coordinate effort with City tracking of Foreclosed properties
 - c. Undertake limited enforcement actions to reduce over-crowding
 - d. Plan public infrastructure improvements including streetscape and retaining wall repair
5. Provide rehabilitation Incentives; a mix of loans and grants, for interior and exterior improvements, available to homeowners and absentee owners
6. Target effort to address foreclosures and sub-prime lending problems
7. Plan public improvements, retaining wall repairs and streetscape improvements
8. Parking, develop a long term strategy to provide more parking at a reduced rate, to owners and renters
9. Zoning: Consider alternative zoning strategies to encourage building preservation and infill development

1. Target Area

It is essential that this program balance carrots i.e. financing incentives and sticks, enforcement. As resources are limited, it is suggested that a smaller "Target Area" be identified within which community outreach, enforcement and funding strategies would be focused. The area between Library and Marlborough Streets is suggested. This was the boundary of an earlier community planning effort called "weed and seed" which extended to Grove Street. It was focused at identifying problem residents who were a concern of the Police Department. A variety of enforcement and social service agencies combined their efforts to address complex community policing issues. In similar fashion various housing inspection, social service, and support agencies would combine their resources to build a sense of community within this transient neighborhood and provide financial and support services to encourage building upgrading and community revitalization.

2. Outreach and Education:

Given the large percentage of foreign born residents in the neighborhood, the majority of whom have not obtained U.S. citizenship, it is essential to communicate with the local residents before initiating this program. It is also essential to obtain homeowner and tenant support and understanding of this program. If the program design is viewed as geared to upgrade the quality of life, streetscape, and general building conditions, as opposed to a police action to only address issues of over-crowding and enforcement of Building and Sanitary Codes, there will be greater support for the city's efforts.

It is recommended that the City work with the Human Services Collaborative as well as Chelsea Neighborhood Services to undertake the community outreach and community building effort.

3. Formation of a "Quality of Life" Housing Stabilization Committee

The City of Chelsea has a functioning Problem Properties Committee which has been undertaking periodic walks around the Study Area to identify exterior building condition and environmental problems. This Committee needs to be expanded as is shown on Table 2 to include the following departments: Planning, Housing Rehabilitation, ISD (Habitation, Code, BOH), Quality of Life, Police, Licensing, Housing Authority/Metro Housing, Assessing, Chelsea Restoration, CNHS, Social Services, Elderly Services. The Director of this effort needs to be appointed by the City Manager. In addition, it is essential

that a community outreach component be included in this effort. Chelsea Neighborhood Housing Services and the Chelsea Collaborative could provide these services. Chelsea Human Services Collaborative, while indicating their interest, would need funding for a part time staff person to participate in this effort.

4. Code Enforcement:

This will not be a typical code enforcement program which relies on the enforcement of the State Sanitary Code to foster interior up-grades; wiring, plumbing and other health and safety issues. The limitations of this effort are that if City enforces the State Sanitary Code it must find the resources to assist the property owners correct the problems. Relocation can become, in addition to the cost of correcting the violations, an expensive and time consuming process for the City.

To avoid the costly enforcement issues of interior inspections, the focus of this effort will be on exterior improvements in combination with an effort to identify and upgrade the "Five Worst Properties" within the Target Area. To encourage community building an effort will be undertaken to work with local tenants and homeowners. The City will foster a community building spirit by undertaking needed streetscape improvements and an upgrading of exterior retaining wall conditions (initiated as a pilot program).

When necessary, the interior fitness of a dwelling will be determined by enforcement of State Sanitary Code, as well as enforcement of zoning bylaw regarding the definition of a family.

The critical task of this activity is to refine the program design. Within the study area will be a range of problem buildings, property owners and tenants. The City will need to confirm its focus on a manageable mix of problem buildings, foreclosed properties, interior and exterior building repairs, overcrowding, and public improvements. In addition, tenant needs in income, elderly care, and foreign language assistance, will have to be defined. For the program to succeed there must be adequate financial assistance for property owners.

Elements of a Code Enforcement Program:

- Housing Inspection, Planning Department staff, and Problem Properties Committee (see organization chart, Table 2) to identify a pilot area for inspections.
 - Sub-area to include problem properties, foreclosures, properties in need of rehabilitation, homeowners of varying economic conditions, limited number of absentee owners, over crowding, and streetscape/retaining wall issues.
 - Identify neighborhood leaders in the sub-area
 - Identify funding sources for building rehabilitation
 - City Departments agree to support effort.
- Problem Properties Committee Periodic Inspection Program
ISD gains cooperation of N-Star and Comcast to notify ISD when apartments turnover.
Working with neighborhood leadership, exterior inspection program initiated

4 Massachusetts State Sanitary Code, Chapter II Minimum Standards of Fitness for Human Habitation [105 CMR 410.000] (See Appendix)

5 City of Chelsea Zoning Ordinance [Sec. 10, Definitions] defines a family as "any number of related individuals living together in one (1) dwelling unit as a single housekeeping unit as distinguished from a group occupancy, a lodging house, rooming house, club, hotel or other communal arrangements; provided, however, that not more than four (4) unrelated persons may constitute a family for the purposes of this ordinance."

5. Housing Rehabilitation Incentives:

In order to attract as much interest as possible, we are suggesting that the City provide a range of incentives as shown in the Table 1, Source of Funds, which follows below. Tax abatements, reductions in water bills, a mix of loans and grants will be needed. Furthermore, given the low income of the residents, it will be essential to have as much grant and as little loan funding as possible.

Phone surveys of local banks indicate that most of the mortgage financing is not local. One can suspect, therefore, that many of the loans are based on sub-prime, adjustable interest rates which are re-adjusting at substantially higher interest rates placing increasing pressure on the homeowners. Since property values in the area are currently decreasing, one can assume that many of the homeowners are "unbankable" and will require grants because they will not be able to carry any additional debt.

Table 1, Sources of Funds

Source	Amount	Use
City Tax Abatement for Homeowner	\$700/unit	Leverage local improvements
Get the Lead Out	Up to \$40,000/unit for 3 family	Woodwork, windows, exterior
CDBG Housing Rehab.	\$30,000/unit loan or grant	Interior first, then exterior
CDBG Infrastructure grants to City	T.B.D.	Grants for streetscape and retaining walls
Chelsea Restoration Homebuyer/Soft Second	Down payment assistance Soft Second	Homeownership of foreclosed units
City funds		Buy down predatory loans
Chelsea Restoration/CDBG		Receivership Program; buy-down and purchase, rehab and sale to new homeowner
Chelsea Restoration/Chelsea Provident Bank	\$30,000, 15 years amortization, fixed low rate.	Home improvement
Chelsea Corporation for Economic Progress-	\$5,000-\$20,000 loans, 7 yr term, 50% owner participation	Homeowner loans
Just A Start Program	Free carpentry and labor	Housing rehabilitation

6. Targeted Effort to Address Foreclosures:

Eleven foreclosures have been identified within the Study area. In order to ensure that the properties are not left vacant and vandalized, it is important that a coordinated effort be undertaken to work with City agencies, funding resources and banks to purchase, renovate and sell these properties to qualified First Time Homebuyers.

7. City Infrastructure Improvements; retaining walls, streetscape:

The Problem Properties Committee will need to prepare a Streetscape and retaining wall improvement program within the target area. CDBG funds would be utilized for undertaking the improvements

8. Parking:

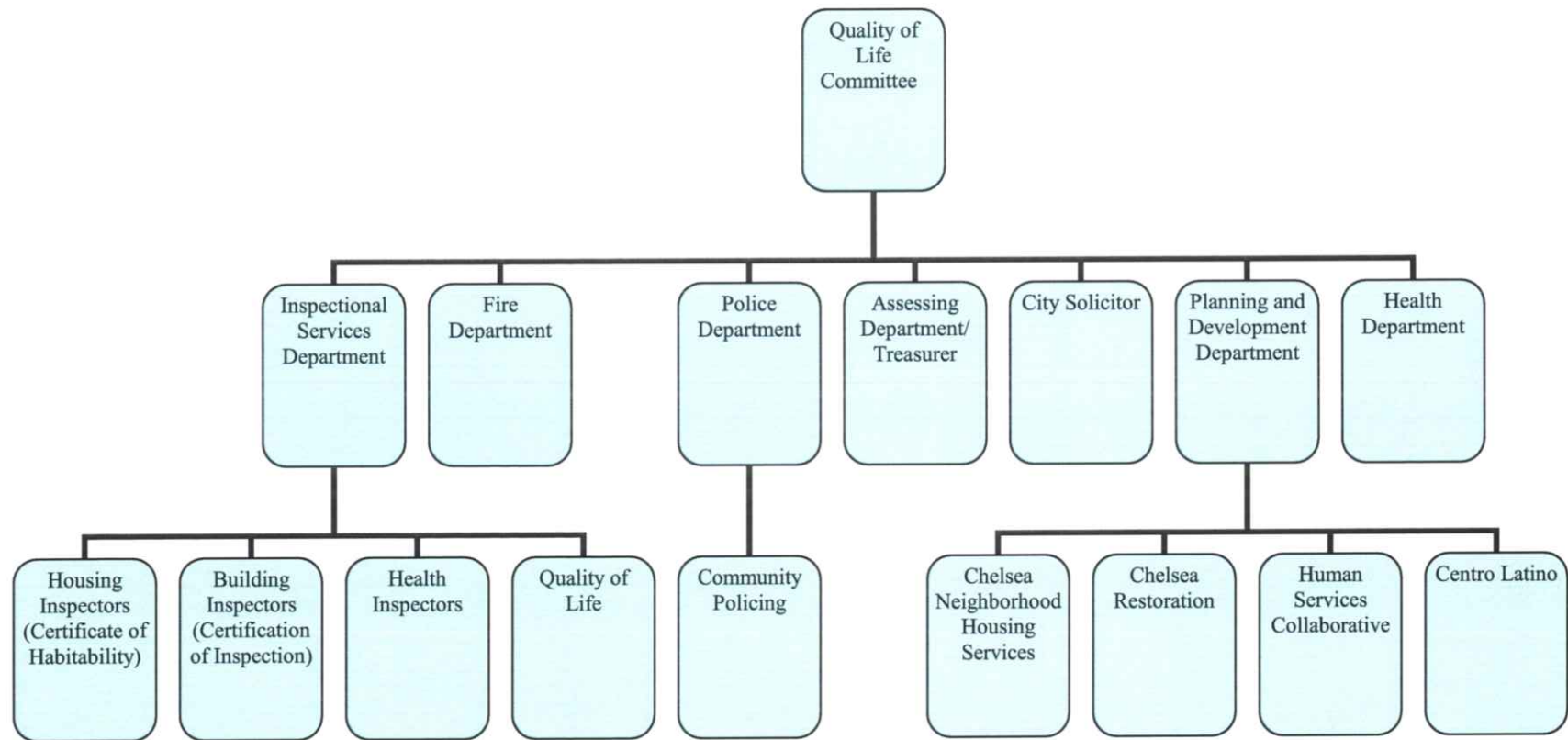
A short-fall in parking needs to be addressed over time. There are under-utilized lots that could possibly serve as neighborhood parking areas. A preliminary concept plan for a parking garage at the site of the St Rose Rectory could possibly serve area residents assuming the rental costs were not too high.

9. Zoning:

The current zoning does not permit densities which approximate the existing development. A 40R overlay district(s) developed for the existing neighborhood area(s) and targeting densities to 35 units per acre would provide for a flexible approach to infill development while providing needed funding which could be allocated to housing rehabilitation or public improvements

Table 2

**“Quality of Life” Housing Stabilization Committee
Organizational Chart**



Appendix 1 Chapter 16 Housing/Sanitary Code⁶

Overview:

The State Sanitary Code, Chapter II, “Minimum Standards for Fitness for Human Habitation” provides detailed standards for safe and sanitary housing...*to protect the health, safety and well-being of the occupants of housing and of the general public, to facilitate the use of legal remedies available to occupants of substandard housing, to assist boards of health in their enforcement of this code, and to provide a method of notifying persons of conditions which require immediate attention.*

Poor water supplies, insufficient heat, or pest infestation can contribute to or cause serious health problems, especially for the elderly, children, or other vulnerable residents. Defective electrical systems, inadequate exits, and structural defects may seriously endanger both residents of the unit and neighbors or visitors as a result of fires or accidents. Crowded conditions, improper sewage disposal, the shared use of toilets, water, and sleeping quarters is conducive to the proliferation of gastrointestinal ailments and other communicable diseases, and could result in contamination of water supplies. Thus, problems associated with substandard housing can be particularly challenging for boards of health.

Measures to prevent housing problems may include periodic inspections as well as public education and advice to homeowners and landlords on how best to maintain and repair their property.

Complaints must be acted upon:

- Report all violations
- Order the owner or occupant to correct violations within time specified
- Conduct necessary re-inspections
- Hold a Hearing if requested
- Keep records

⁶ Massachusetts BOH Guidebook, September, 2006 , Housing/Sanitary Code

**Appendix
City of Chelsea
Housing Rehabilitation Resources**

Program	Agency	Description
CDBG Housing Rehabilitation	City of Chelsea/DHCD Chelsea is a Mini Entitlement Community and could design a housing rehabilitation program	City applies for up to \$800,000 in grant funding annually for range of activities. Could include funding for housing rehabilitation and code enforcement staff, funding for first time homebuyers and code enforcement work. Priority for code related, interior work; Exterior Improvements, i.e. Foundations and driveways, can be funded if all code related improvements undertaken. 51% of units must be low/mod. Need to confirm income and have rental agreements limiting rental increases and ensuring that 51% of units for 15 years are occupied by low/mod tenants. Investor owners can qualify for funding. Funding can be grants, deferred payment loans, or low interest loans.
First Time Homebuyer Soft Second	DHCD/MHP Chelsea Restoration	<p>If you have owned a home with a former spouse, are a single parent, or owned a home without a foundation you may also qualify for the program.</p> <ul style="list-style-type: none"> • Have completed a first-time homeownership education workshop. • Meet SoftSecond's income guidelines in the community you are looking to purchase in. • Have less than \$75,000 in total household liquid assets (excluding retirement accounts such as 401K, 403b, 457 and IRA accounts). • Agree to use the property you purchase through the SoftSecond™ Loan Program as your primary residence throughout the term of your loan. <p>The first mortgage is fully amortizing - i.e., you pay principal and interest as soon as the loan closes. However, to decrease your financial burden in the first 10 years, the payments on the second mortgage are limited to interest only. Public funds may also cover a substantial portion of the interest due on the second mortgage in the early years. For the first five years, public funds may cover up to 75 percent of the interest payments on the second mortgage. Over the next five years the amount of subsidy gradually decreases and is phased out by year 10.</p>
Get the Lead Out	City of Chelsea Mass. Housing	<p>Provides 1-4 unit owner occupants, nonprofits, investor-owners with loan funding for de-leading</p> <p>Owner occupants-0% deferred loan Non-profits 0% fully amortizing loan Investor Owners-5% fully amortizing loan Owner occupants earning 150% of area median income eligible to receive a 3% fully amortizing loan</p>

APPENDIX A

I. EXISTING CONDITIONS

Introduction

The Gerrish/Bellingham Street neighborhood is one of three dense and historic hillside residential communities in Chelsea. While Admiral Hill, a former naval base, has been restored as a residential neighborhood, the Gerrish/Bellingham Street neighborhood has lacked an overall vision and revitalization strategy. The purpose of this study is to create a comprehensive vision that addresses the needs of the two parts of this neighborhood, the Box District a former industrial area of vacant land and mill buildings located at the base of Bellingham Hill and a dense, predominantly two and three family residential neighborhood extending from Bellingham Street at the top of the hill north to Library Street. This vision and action plan will identify those strategies and resources that will facilitate the stabilization of the existing developed residential neighborhood, continue the transformation and upgrading of the Box District now underway as well as better knit these two sub-areas of the district into the fabric of the city.

Location

The Gerrish/Bellingham Street neighborhood is located south of Broadway adjacent to major institutional uses, a commuter rail station at Broadway, and a former industrial area of now predominantly vacant or converted mill buildings. Other than a limited number of institutional, commercial and residential uses on Broadway and the three block former industrial area bounded by Library Street on the south and the commuter rail line on the north, this area is dominated by dense development of aging two and three family wood frame homes. These properties provide a unique housing resource for the largely low/moderate income immigrant population and long-term residents that inhabit this neighborhood.

Land Use

The Gerrish/Bellingham Street neighborhood consists predominantly of residential land uses. Of the 309 parcels in the district, 75% (233) are residential. The majority of residential uses are two and three family homes; these account for 60% of all uses in the area. Other residential uses include single family homes, apartments, condominiums, a senior assisted living facility, and the YMCA single room occupancy (SRO) residence facility.

Industrial uses account for 2% of total land uses, while retail and office account for less than 1% each. There is only one office building and two retail stores within the area.

Two churches, one club (American Legion), and the Chelsea Public Library comprise 2% of the parcels.

The remaining 19% of land uses are vacant parcels. Some of these parcels, while recorded as vacant by the assessor, do contain garages and/or parking. These parcels are noted on the Land Use map as either vacant or accessory land.

Land Use

Use	Number of Parcels	Percent
Residential	233	75.4%
Single Family	12	3.9%
Two Family	80	25.9%
Three Family	104	33.7%
Apartments	25	8.1%
Condominiums	10	3.2%
Senior Living	1	0.3%
Group Residence	1	0.3%
Commercial	3	1.0%
Industrial	6	1.9%
Public/Institutional	5	1.6%
Vacant	62	19.4%
Total	309	100.0%

Zoning

The entire study area is zoned Residential R-2. The current R-2 density extends into the former industrial area, the Box District on Gerrish Avenue. The study area abuts on the north a Light Industrial, an Industrial, a Residential-3 District, and a Retail Business 1 District.

Within the R-2 District, residential uses are allowed by right, multifamily by special permit. Commercial uses are not allowed. The existing densities require a minimum of 3,500 sf per unit for 1-3 units structures; multi-family--3,000 sf and a minimum of 1.5 parking spaces/ unit. These densities permit about 12 du/acre. An FAR of 1 is permitted in the R-2 District for apartment buildings.

The proposed residential developments now underway are designated as 40-R zoning districts. This has permitted densities of close to 50 du/acre, densities far in excess of what is permitted under the current R-2 zoning.

A recently passed R-3 District, as indicated below, permits higher densities as well as a bonus for family and affordable units as well as below grade parking. As many as 45 du per acre are permitted by special permit.

Residential R-2 District Uses

Residential	
Allowed by right	Single Family Two Family Three Family Dwelling Conversions
Allowed by special permit	Multifamily dwelling with 4 or more units Lodging or boarding house, congregate housing, assisted living, shared elderly housing, and community residence
Not allowed	Dwellings containing 6 or fewer dwelling units Multifamily dwellings with between 12 and 35 units per acre Dwelling above first floor retail/office use
Commercial	
Allowed by right	None
Allowed by special permit	Nursing home Planned development Bed & Breakfast Parking facilities
Industrial	
Allowed by right	None
Allowed by special permit	None
Exempt/Institutional	
Allowed by right	Religious structures Educational purposes Small family day care home or facility Child care facility in existing building Agriculture use on more than 5 acres
Allowed by special permit	Large family day care home or facility Child care facility in new building Conversions of municipal education buildings to non-municipal uses

Dimensional Regulations

	I-3 Units (R-2)	Apartment	Residence R-3	Retail Business 2
Minimum Lot Area				
Per Dwelling Unit	3,500 sq. ft.	3,000 sq. ft.	950 sq. ft.	350 sq. ft.
But not less than	5,000 sq. ft.	10,500 sq. ft.	5,000 sq. ft.	10,000 sq. ft.
Maximum Density	n/a	n/a	12 units/acre, 45 by SP	12 units/acre, 45 by SP
Minimum Density	n/a	n/a	n/a	n/a
Minimum Frontage	40 ft.	60 ft.	40 ft.	50 ft.
Maximum Floor Area Ratio				
Standard	n/a	1.0	1.0	n/a
Bonus	n/a	2.0	1.5	n/a
Maximum Height	35 ft.	40 ft.	36 ft., 60 by SP	36 ft., 60 by SP
Maximum Number of Stories	3	4	3, 5 by SP	3, 5 by SP
Required Yards				
Front	10 ft.	10 ft.	10 ft.	10 ft.
Side	1/4 building height	1/4 building height	1/4 building height	10 ft.
Rear	20 ft.	20 ft.	20 ft.	20 ft.
Maximum % Lot Coverage	40%	40%	40%	n/a
Minimum Usable Open Space per family	300 sq. ft.	150 sq. ft.	150 sq. ft.	100 sq. ft.
Minimum Area to remain as Usable Open Space	n/a	n/a	n/a	n/a
Minimum Distance Between Access Points to the same lot	n/a	n/a	n/a	n/a

Parking

Use	Required Parking Spaces
Single and two family dwellings	2 spaces per unit
Three or more dwelling units (Except in the R-3 District)	1.5 spaces per unit plus one-half (.5) additional spaces for each bedroom in excess of two (2) in any unit
Uses Accessory to the above	In addition to the above, 1 space plus 1 space for each non-resident employee
Boarding House, Lodging House, Rooming House, Bed and Breakfast	1 space per person
Public Housing for the Elderly	.5 space per unit
Tourist Home	1 space per guest room, plus 1 additional space per 3 employees on the largest shift
Dormitory	1 space per 5 occupants
Hotel, Motel, Inn or Club	1 space per 2 bedrooms, plus 3 spaces per 200 sq. ft. of floor area available for meetings and functions and 1 space per 4 employees on the largest shift
Convalescent, rest or nursing home	1 space per 4 beds, plus 1 space per 3 employees on the largest shift
Hospital, sanitarium or similar institution	1 space per 3 seats, plus 1 space per 3 employees on the largest shift
Church or similar place of assembly	1 space per 3 seats
Funeral home or chapel	1 space per 3 seats, or 1 space per 40 sq. ft. of floor area open to the public, whichever is greater
Community center, auditorium, gymnasium, theater, or places of public assembly*	1 space per three seats or 5 linear feet of bench area
Public library, museum, or similar institution	1 space per 200 sq. ft. open to the public
Retail business, commercial, or personal service Establishment	1 space per 300 sq. ft. of floor area up to 50,000 sq. ft. plus 1 space per 600 sq. ft. thereafter
Professional, business or public office	1 space per 300 sq. ft. of floor area up to 50,000 sq. ft. plus 1 space per 600 sq. ft. thereafter
Medical or dental office or clinic	4 spaces per individual office or suite, plus 4 spaces per additional doctor or dentist within a single office or suite
Restaurant, taverns, or other place serving food or Beverages	1 space per 3 seats, permanent or otherwise, plus 1 space per 3 employees on the largest shift
Industrial, manufacturing, warehouse storage, laboratories or similar uses	1 space per 1,000 sq. ft. of floor area, plus 1 space per 3 employees on the largest shift
Automobile washing and waxing establishment**	5 spaces per fixed stall equipped for washing or waxing
Motor vehicle repair garages and service stations	2 spaces per pump, plus 2 spaces per service bay and 1 space per employee on the largest shift
Outdoor or open-air sales space	1 space per 600 sq. ft.
Bowling alleys	5 spaces per alley
Pre-school through middle or junior high school	1 space per teacher or other employee anticipated during normal school hours
Senior high school, places or higher education, professional school, trade school	1 space per teacher or other employee anticipated during normal school hours, plus 1 space per 5 students in a senior high school or 1 space per 2 students in any other such institution

* Such a use may, by special permit, be allowed to reduce this ratio to the extent that the ZBA finds that compensatory spaces within 3,000 feet of the entrance to this use will generally be available at the times this use is in operation, but not to less than 1 space per 12 seats or 1 space per 400 sq. ft. of usable gross floor area.

** Parking spaces in this case need not be stalls but may be waiting spaces in driveway.

*** Where any computation results in a fractional number, the fraction shall be counted as 1 space.

Ownership

Approximately one-third of the parcels in the study are less than 3,000 square feet in size, while another third are between 3,000 and 6,000 square feet. A small number (18) of the parcels are greater than 10,000 square feet. Most parcels are individually owned.

The largest parcels are along Gerrish Avenue and Library Street. Four of these are owned by Chelsea Neighborhood Housing, which also owns another eight scattered parcels in the study area, four by Standard Box, one by Sudbury Brass Goods, one by BCK LLC, and one by the Roman Catholic Archbishop of Boston. The other large parcel in the study area is occupied by Senior Living at Bellingham Hill.

The City owns five scattered parcels of varying sizes within the area. Mt. Bellingham Episcopal Church owns four contiguous parcels on Bellingham Street, while Shawmut Advertising owns five contiguous parcels on Library Street. The remaining major owners include five individuals who own three or more parcels in the area (see Major Owners Map).

Housing Mix

Of the 233 parcels containing residential uses, only 5% are single family residences, while two family and three family homes account for 34% and 45%, respectively. Other residential uses include apartments (11%), condominiums (4%), a senior assisted living facility, and the YMCA.

According to the 2000 U.S. Census, 78% of the units within the two block groups that comprise the study area are renter-occupied units.

Building Condition

Building condition was determined through a windshield survey conducted by the consultants. Nearly half of the buildings in the study area are in fair condition. Just over a quarter are in good condition, while 7% are considered poor. The 45 vacant parcels were not assessed in terms of condition. Many of these parcels contain a parking garage or were utilized for surface parking.

Two recent incidents highlight some of the problems in the district. At 102 Marlboro Street, a rear retaining wall collapsed during a recent rain storm. And at 70 Grove Street, there recently was a house fire. The Fire Department reported that Grove Street is the locus of the largest number of fires in this area due in large part to the density of households overcrowding units and the high density of buildings on this street.

Housing Type

Housing Type	Number of Units	Number of Buildings	Percent
Single Family	12	12	5.2%
Two Family	160	80	34.3%
Three Family	208	104	44.6%
Apartments (4-8 units)		22	9.4%
Apartments (8 or more units)		3	1.3%
Condominiums	47	10	4.3%
Senior Living	60	1	0.4%
Group Residence		1	0.4%
Total		233	100.0%

Building Condition

Condition	Number	Percent
Good	90	29.0%
Fair	153	49.4%
Poor	21	6.8%
Vacant	46	14.8%
Total	310	100.0%

Year Structure Built

Year	Percent
1990-1999	0%
1980-1989	2%
1970-1979	7%
1960-1969	21%
1950-1959	10%
1940-1949	14%
1939- earlier	46%
Total	100%

Shown in the table to the left, 46% of structures in the study area were built prior to 1940. It is noteworthy that structures at the bottom of the hill in block group 1 in the north of the study area have a median year built of 1951, whereas structures in block group 2 further up the hill in the south of the study area have a median year built of 1940.

Market Conditions

The market has fallen off since last year. As reported in the press, the national problem of sub-prime foreclosures is present in Chelsea. Rents have dropped about \$150/month from last year and sales prices are down at least \$30,000 per unit.

The values depend upon location and condition. Library, Marlboro and Grove Streets are considered not as desirable areas as Bellingham and Broadway. Discussions with realtors have indicated the values listed in the table to the right. These values vary with building condition and availability of parking.

Given current market conditions in the Boston area as well as in Chelsea, this is a "buyers market" with a surplus of properties for sale. Rents are lower reflecting the "soft" market for ownership properties. By contrast, there is a sense that the new housing construction on Gerrish Avenue will have a positive impact on the neighborhood. It is not clear, on the other hand, what percentage of the new housing will be subsidized.

Discussions with local realtors and our windshield survey of the area indicated that 5-10% of the sale as well as rental properties were vacant. This demonstrates a trend towards greater vacancy as less than 5% of units on average were vacant at time of the 2000 Census.

Demographics

The Study Area is found in Census Tract 1601 and contains Block Group 1 and a portion of Block Group 2. The boundaries of Block Group 1 are Willow Street, Broadway, and Grove Street; Block Group extends from Grove Street to Cottage Street to Eastern Avenue (see Census Block Groups map).

Race

The total population for these two block groups is 3,246 people. Of these, 38% identify themselves as white, 12 % as black, 8% as Asian, and 42% as other. 56% classify themselves as having Spanish, Hispanic, or Latino origins, slightly greater than the 52.7% proportion for the City as a whole.

Average Rents & Sale Prices

Rent	One Bedroom	\$750
	Two Bedroom	\$900-\$1,100
	Three Bedroom	\$1,200-\$1,400
Sale Price	Two Family	\$430,000
	Three Family	\$460,000-\$490,000

Average Assessed Value, Residential

Housing Type	Average Assessed Value
Single Family	\$383,875
Two Family	\$580,288
Three Family	\$401,781
Condominium Units	\$819,990

Race

	Block Group 1	Block Group 2	Total	% of Total
Population	1,858	1,388	3,246	
White	724	497	1,221	37.6%
Black	92	300	392	12.1%
Asian	260	0	260	8.0%
Other	782	591	1,373	42.3%
Hispanic or Latino	1,133	673	1,806	55.6%

Household Type & Size

Of the 814 total households in the two block groups, 86% are family households. 39% of households are married couples with children, while female-

Household Type

	Block Group 1	Block Group 2	Total	% of Total
Households	469	345	814	
Family Households	422	280	702	86.2%
Married couple	240	214	454	55.7%
With children	179	136	315	39.0%
Male (no wife)	23	26	49	6.0%
With children	8	7	15	1.8%
Female (no husband)	159	40	199	24.4%
With children	104	27	131	16.1%

Average Household Size

All Housing Units	BG. 4.02	BG: 3.46
Owner-occupied	3.96	4.39
Renter-occupied	4.03	3.17

headed households with children account for 16%.

The average household size for Block Group 1 is 4.02. Block Group 2 has a slightly smaller average household size of 3.46. 16% of households in both block groups have 7 people. By contrast, the average household size for Chelsea is 2.91 persons.

Household Size

	Block Group 1	Block Group 2	Total	% of Total
Total	469	345	814	
1-person	34	27	61	7.5%
2-person	68	73	141	17.3%
3-person	66	74	140	17.2%
4-person	120	44	164	20.2%
5-person	83	36	119	14.6%
6-person	30	31	61	7.5%
7-person	68	60	128	15.7%

7 Hispanics or Latinos include those who classify themselves in one of the specific Hispanic or Latino categories ("Mexican," "Puerto Rican," or "Cuban") as well as those who indicate that they are "other Spanish, Hispanic, or Latino." People who do not identify with one of the specific origins but indicate that they are "other Spanish, Hispanic, or Latino" are those whose origins are from Spain, the Spanish-speaking countries of Central or South America, the Dominican Republic, or people identifying themselves generally as Spanish, Spanish-American, Hispanic, Hispano, Latino, and so on. People who identify their origin as Spanish, Hispanic, or Latino may be of any race.

Citizenship Status

Citizenship status is similar for both block groups. Overall, 53% of residents in the area are native, while 47% are foreign born. Of those foreign born, the majority have not become U.S. citizens.

Income

Median household income for Block Group 2 is approximately \$7,000 higher than that of Block Group 1. There is a slight difference between median household income and median family income for both block groups. Median household income in Chelsea is \$36,330.

995 total individuals (30.7% of total population) report incomes below the poverty level. 29.2% of families (205 out of 702) and 21.7% of households (177 out of 814) report the same. Approximately 14% of household in both block groups receive public assistance income.

Citizenship Status

	Block Group 1	Block Group 2	Total	Percent of Total
Native	954	763	1,717	53%
Foreign Born	904	625	1,529	47%
Naturalized Citizen	85	142	227	NA
Not a citizen	819	483	1,302	NA
Total	1,858	1,388	3,246	100%

Income

	Block Group 1	Block Group 2	Total
Median Household Income	\$25,324	\$32,083	
Median Family Income	\$24,063	\$30,167	
Individuals with income below the poverty level	656	339	995
Families with income below the poverty level	133	72	205
Households with income below the poverty level	157	110	177

21E sites

Four sites in the study area are identified on the Mass DEP Reportable Release Lookup. Two of the sites are located on Gerrish Avenue; both are owned by Standard Box. The status of 28 Gerrish Avenue is reported as having achieved a permanent solution with contamination reduced to background, while 40-42 Gerrish Avenue reports having no significant risk contingent on the implementation of certain activities. The other two sites are located on Library Street. The Shawmut Printing property's status is no significant risk. Two reportable releases are listed for Folding Paper Boxes at 100-132 Library Street. These releases were reported in October and December of 2006 and do not yet have a compliance status.

Infrastructure

The Study Area is served by public water and sewer.

Willow Street is currently a public right of way of variable width extending from Broadway to Grove Street and has not been designated as a street.

Transit

Chelsea is located on the Newburyport/Rockport commuter rail line. This service is available to North Station in Boston. The travel time from Chelsea Station, located at Arlington St. and 6th Street, is approximately 12 to 13 minutes. There is no parking at the station.

Chelsea is served by five bus lines. All routes stop at Broadway and Washington Avenue, just outside of the study area. Route 111 runs to Haymarket Station in Boston, which connects to the Orange and Green lines; Routes 114, 116, and 117 runs to Maverick Station in East Boston, which connects to the Blue Line. Travel time to these destinations is approximately 10 minutes. Route 115 runs to Wood Island Station on the Blue Line in about 8 minutes.

Community Organizations

Local organizations which have the support and participation of neighborhood residents have not been identified. The two churches in the community are Mt. Bellingham Episcopal Church and St. Rose Catholic Church. The two parks—Bosson Park, located between Bellingham and Grove Streets, and Bellingham Hill Park, a smaller park located on Highland between Bellingham and Cottage Streets—could possibly present a focus for organizing local residents.



BUILDING CONDITION



0 80 160 320
Feet

Larry Koff & Associates
June 2007

GERRISH AVENUE/BELLINGHAM STREET STUDY AREA CHELSEA, MA



BUSINESSES & INSTITUTIONS

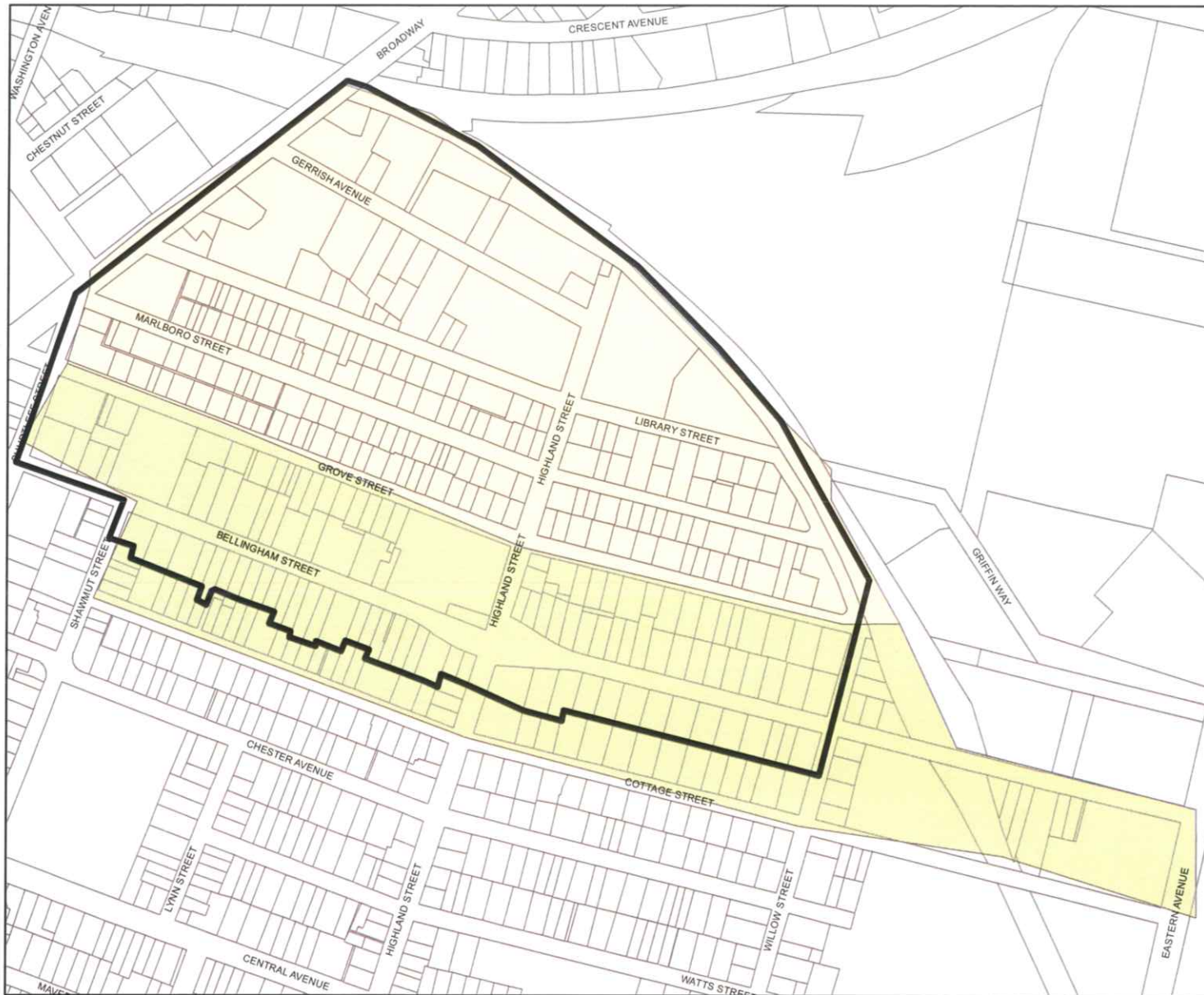
-  Study Area
-  Parcels
-  Buildings



0 75 150 300 Feet

GERRISH AVENUE/BELLINGHAM STREET STUDY AREA CHELSEA, MA

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June 2007



CENSUS BLOCK GROUPS

 Study Area

 Parcels

Census Tract 1601

 Block Group 1

 Block Group 2



0 100 200 400
Feet

GERRISH AVENUE/BELLINGHAM STREET STUDY AREA CHELSEA, MA

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April 2007



GENERAL LAND USE

- Residential
- Commercial
- Industrial
- Municipal
- Institutional
- Park/Playground
- Vacant
- Accessory Land
- Right of Way
- VL Vacant Land
- VB Vacant Building
- P Parking



0 75 150 300
Feet

GERRISH AVENUE/BELLINGHAM STREET STUDY AREA CHELSEA, MA

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MAJOR OWNERS

- BCK LLC
- Chelsea Neighborhood Housing
- City of Chelsea
- Hernandez/Follis
- Harvey
- Mental Health Programs Inc.
- Moore
- Mt. Bellingham Episcopal Church
- Rice
- Roman Catholic Archbishop of Boston
- Saifollahi
- Shawmut Advertising
- Standard Box
- Sudbury Brass Goods
- YMCA



0 75 150 300
Feet

GERRISH AVENUE/BELLINGHAM STREET STUDY AREA CHELSEA, MA

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RESIDENTIAL LAND USE

- Single Family
- Two Family
- Three Family
- Condo-2 unit
- Condo-3 unit
- Condo-4 unit
- Condo-Multi
- Apartments (4 units)
- Apartments (8+ units)
- Group Residence



0 75 150 300
Feet

GERRISH AVENUE/BELLINGHAM STREET STUDY AREA CHELSEA, MA

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TOPOGRAPHY

— Elevation (feet)

 Study Area

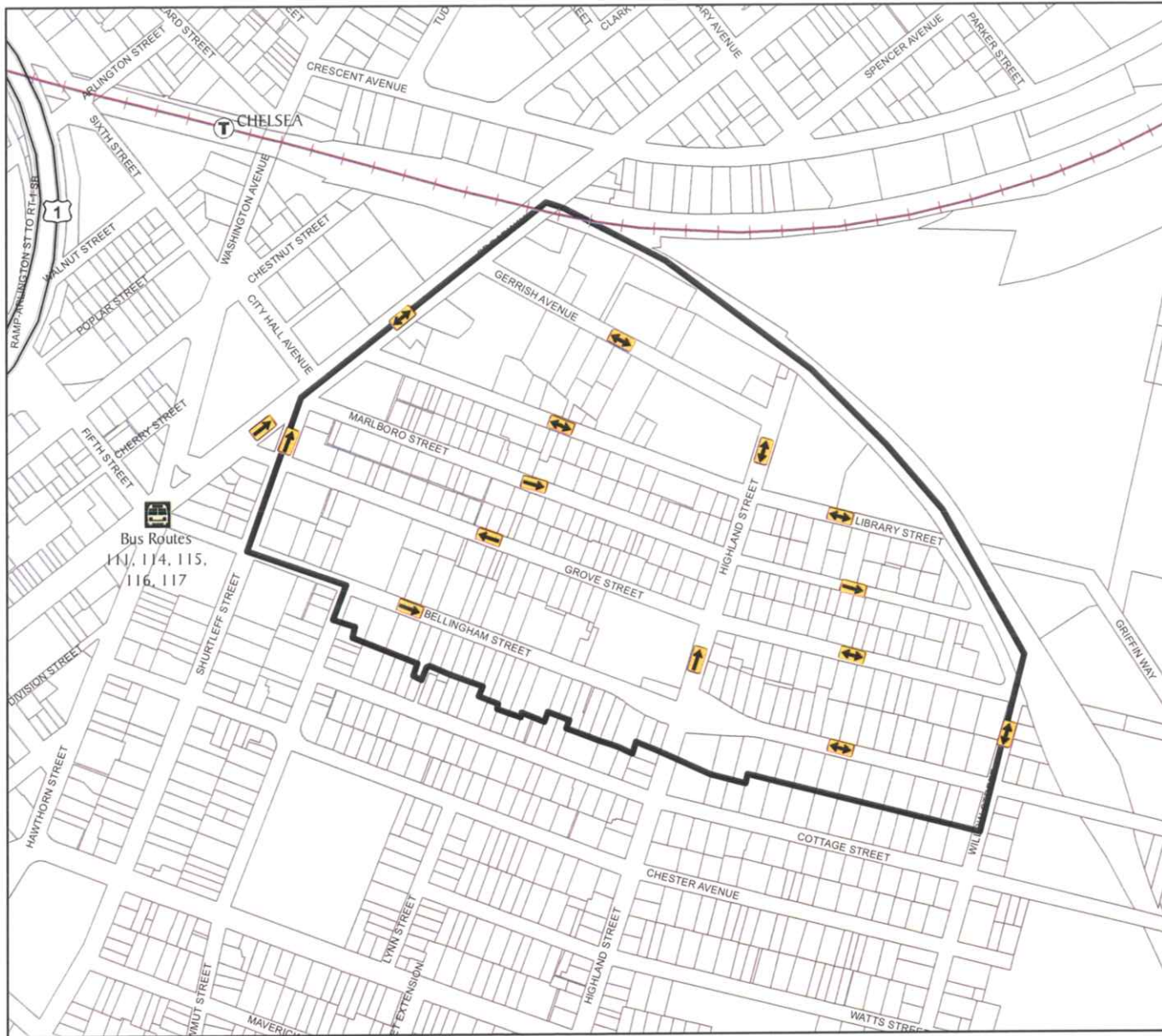
 Parcels



0 187.5 375 750 Feet

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TRANSPORTATION

-  Study Area
-  Parcels

MBTA

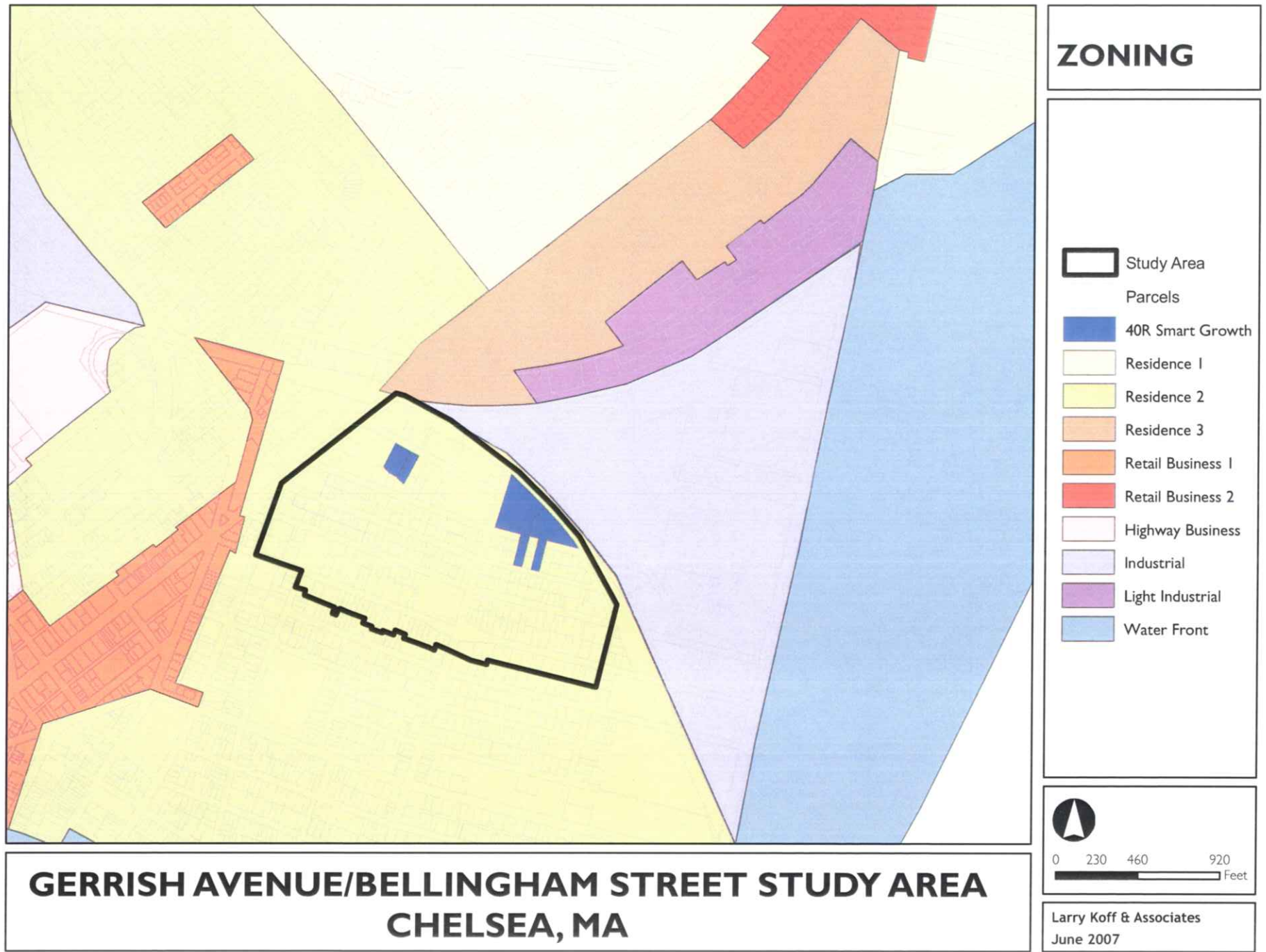
-  Commuter Rail Station
-  Newburyport/Rockport Commuter Rail Line
-  Washington Ave/Broadway Bus Stop
-  Travel Direction
-  Limited Access Highway



0 180 360 720 Feet

GERRISH AVENUE/BELLINGHAM STREET STUDY AREA CHELSEA, MA

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PROPOSED DEVELOPMENTS

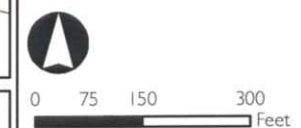
 Study Area

 Parcels

 Buildings

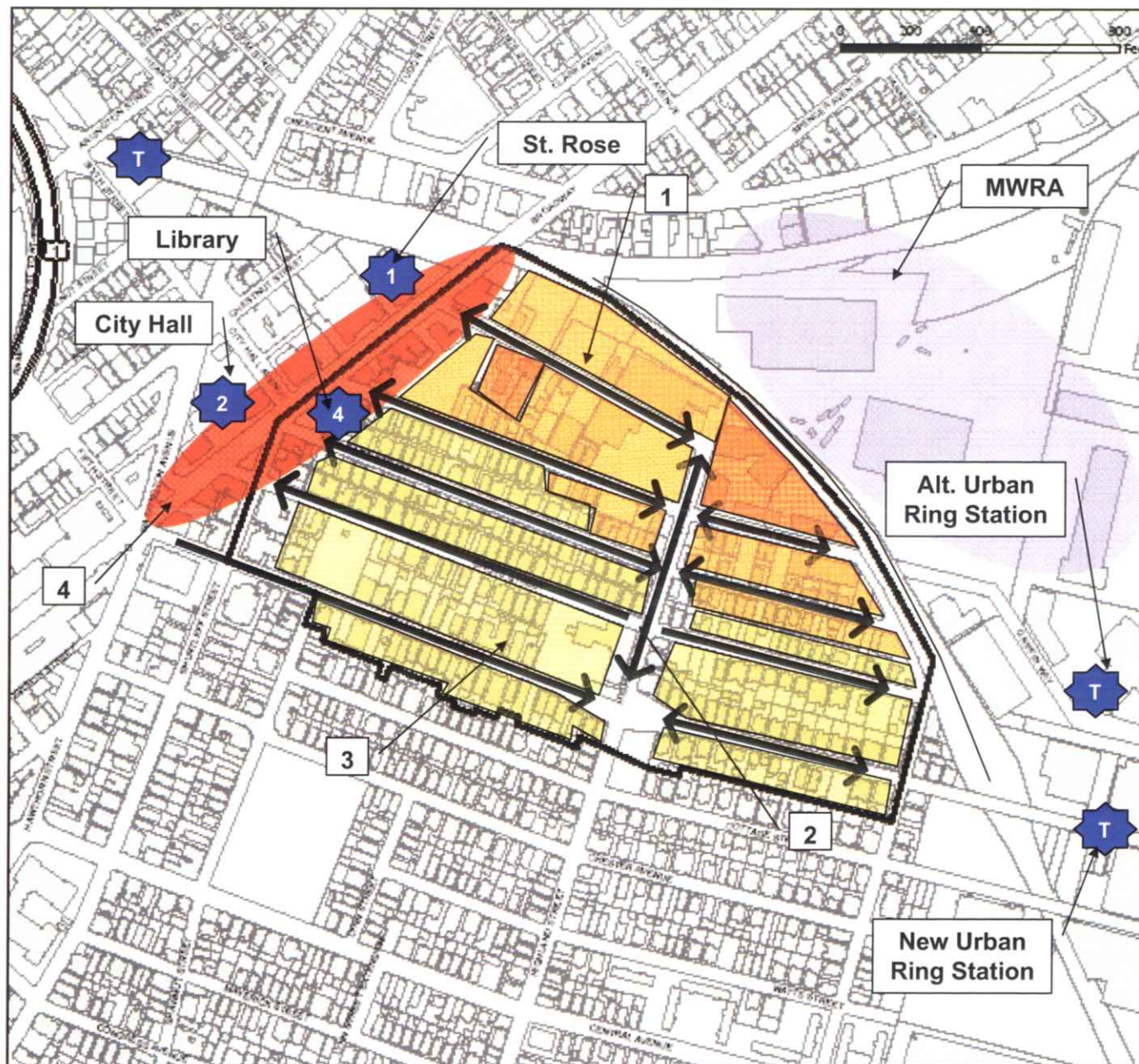
Proposed Development

-  Atlas
-  Box Works District
-  Standard Box



GERRISH AVENUE/BELLINGHAM STREET STUDY AREA CHELSEA, MA

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Gerrish Avenue/ Bellingham Street Neighborhood Study

EXISTING CONDITIONS

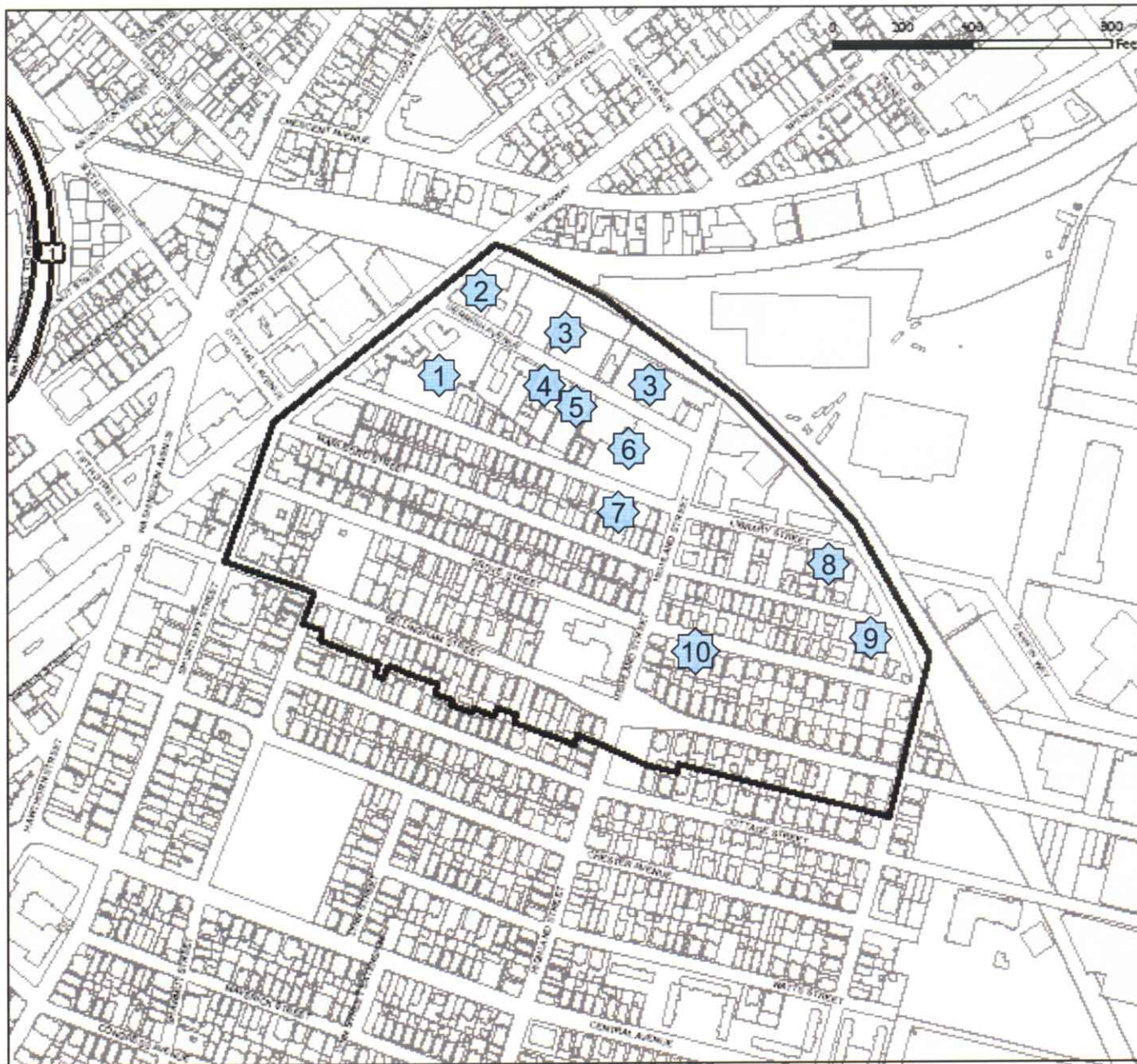
1) **Gerrish Avenue** is a former industrial area that is composed of abandoned buildings and underutilized properties. The decline of this area is also evident on the adjacent residential streets (Library and Marlboro). Rezoned residential, new developments by CNHS and Mitchell Properties begin to reveal the market potential

2) **Highland St.** – Provides the only connection between the Gerrish St. and Bellingham Street Neighborhoods. Access is still restricted due to topography and a pedestrian exclusive section between Library and Marlboro. Circulation is almost exclusively toward Broadway (dense fabric does not allow through block connections) and there are few destinations that encourage north/south movement. It will be difficult for the more stable Bellingham Area to facilitate economic revival of the Gerrish Street area due to these restrictions.

3) **Bellingham Neighborhood** – the higher up the Hill, the better the building quality and condition. It is the corresponding Quality of Life of this area that is desired for the transitional area including Gerrish Ave, Library and Marlboro Streets.

4) **Broadway** – the “Main Street” of Chelsea. Currently, institutions are the primary uses adjacent to Bellingham and Gerrish. Changing landscape could provide opportunity to redevelop parcels at higher density (gateway element and/or TOD).

- Buildings rated fair to good
- Buildings rated poor and underutilized properties.
- New development planned or under construction



Gerrish Avenue/ Bellingham Street Neighborhood Study

OPPORTUNITIES

- 1) St Rose Rectory – Surface Parking Lot provides the opportunity for larger parking structure that can be a neighborhood resource – evening parking for underserved residential area and day time parking for Commercial district/commuter rail. Parking can be screened with additional residential on Gerrish and Library exposures.
- 2) CNHS/Family Dollar – establishes retail use on Broadway at north end of CBD. With market change site could be redeveloped at higher density.
- 3) Standard Box Site – housing opportunity setting character/density for north side of Gerrish Ave.
- 4) 33 Gerrish Ave – existing warehouse could be redeveloped for housing – possible in conjunction with exiting residential use at 31 Gerrish.
- 5) 70 Library – existing apartment building with parking lot on Gerrish. Lot could be redeveloped with new residential on Gerrish and internal parking deck.
- 6) Sudbury Brass Goods – Redevelopment of site can establish Gerrish as a residential neighborhood and provide valuable open space.
- 7) Library @ Highland – Infill development on existing vacant parcels - may be multiple owners
- 8) Shawmut Printing – Isolated location could support continuation of non-conforming use until market supports redevelopment as residential.
- 9) Grove @ Willow – Extension of Willow and improvements to rail corridor provide conditions for redevelopment of vacant and underutilized parcels
- 10) Grove @ Highland – Infill Development on existing vacant parcels – multiple ownership problematic.

Appendix B

Key Development Site Design Tests - R-2/Low Density and High Density

As noted in the main study, three density alternatives were prepared for the Key Development Sites in the Bellingham/Gerrish Neighborhood. The specific details for the Low Density and High Density alternatives have been included in this Appendix.

The Low Density is meant to represent the as-of-right condition, development opportunities complying with the existing R-2 zoning standards. The High Density examines the upper limit opportunities – 50 units per acre – while staying within the established economic parameter of surface parking.

Site 1 - Standard Box

R-2 – Under the as of right density, this site can provide a total of 28 units in two and three family buildings with 47 surface parking spaces. This density permits open space in excess of the 50 square feet per unit requirement.

This density addresses the quality of life goals targeted by the City of Chelsea when the zoning was modified – larger residential units with ample open space and parking. But it provides a much lower density and land utilization than the existing commercial/industrial use. These two and three family homes cannot compete economically with the existing housing in the Bellingham Street Neighborhood currently sought in the market. More importantly, the land value prohibits the production of housing that can reach the marketable value.

High Density (40R) – The unit count can be increased to 94 by easing site area, unit typology and parking (one to one) restrictions. The double loaded corridor, mid-rise residential building is shown on both sites. 22-28 Gerrish Avenue is a deeper site allowing for a shared parking court with double loaded corridor buildings on Gerrish and single loaded/townhouse style buildings along the new linear park at the rear of the site.

The basic urban design parameters would continue to shape development of the site with a strong street wall and massing/façade articulation that provides a human scale rather than a long monolithic elevation. Small buildings would also open views into the site providing some relief.

Site 2 - Sudbury Brass Works

R-2 – This large site provides the opportunity to cluster units and provide open space thereby creating a passive park along Highland Street that could become the symbolic “common space” of the new Gerrish Avenue residential district. Seventeen units could be accommodated in structures that comply with the Zoning Code's as-of-right standards. Parking would be in a shared parking lot in the interior of the site, possibly under structure for the units fronting Library (accessed from parking area). Building type would be two, three and four family detached structures.

While the common open space would be a significant benefit to the emerging residential district and the building types relate well to the existing context, the density of 14 units per acre is economically challenging when compared against the value of existing commercial use.

High Density 40R - The four story, double loaded corridor apartment building model is used on the Highland and Gerrish sides of the parcel to achieve the 50 units per acre density in combination with the stacked duplex units on Library Street (to relate to the existing fabric) - a total of 60 units can be provided on the site. The same one to one parking standard is applied allowing for approximately 62 spaces and a small passive park is created on Highland (similar to the R-3 density alternative).



R-2 - Low Density Alternative



High Density Alternative

Site 3 - Shawmut Printing

R-2 – This alternative shows two story duplex units with 1.5 spaces per unit parking for a total of seven units and 11 parking spaces. Parking is located between the units allowing for rear yards to be used for open space.

This low density approach does reflect the pattern of the existing housing on adjacent streets but at a lower height and density. As the site is currently used for light industry and developed to a significantly higher density it is unlikely that this residential model would be created (land value could not sustain development).

High Density 40R – This alternative differs from the R-3 option only with respect to the additional stacked townhouse style units that can be created with a relaxing of the parking requirements. Four additional units are sited on Library Street for a total of 20 units. One to one parking can be provided with parking in first floor garages. This achieves the 50 units per acre target but compromises open space.

Site 4b – 625 Broadway

R-2 – The small site and limited access make development at a 12 to 15 units per acre problematic. Even a three story building with ground floor retail /office and two floors of housing above would exceed zoning (FAR 3). For the purposes of this report, 625 under the R-2 zoning would be used for surface parking to support the adjacent commercial uses.

High Density 40R – As noted in the main text, this site has the potential to be a landmark. The report studied a redevelopment for the site that was 6 stories and 25 units with ground floor retail and sub-level parking. This density would not be proposed for any other sites in the Gerrish Avenue sub-district and would even be difficult to defend here (120+ units per acre).

Site 5 – 33 Gerrish Avenue

R-2 – At 9,700 square feet, this site can be developed for 3 to 4 housing units under the R-2 zoning and would provide 5 to 6 parking spaces. Because this site has limited frontage on Gerrish Avenue, the structure on Gerrish would be limited to a single two-family structure similar in scale to structures on Bellingham Street.

The redevelopment of this site in conjunction with the CNHS site just to the west on Gerrish Avenue and the potential redevelopment of Sudbury Brass site would solidify the south side of Gerrish Avenue as a residential neighborhood.

High Density 40R – A single four story, 11 unit, apartment building is shown to achieve 50 units per acre. Parking would be accessed from the Library Street side and would need to negotiate the grade change. This alternative shows the design constraints that are created when the 50 units/acre density is imposed on these smaller sites. The result is housing that negatively impacts adjacent properties and is not recommended.

Site 6 – St. Rose Rectory

R-2 – This alternative assumes the Rectory remains and focuses on achieving the urban design principle of creating uniform street/building edges in the study area. This low density option simply adds stacked townhouse structures along the Gerrish Avenue and Library Street exposures and screening and reorganizing the off-street parking areas. As many as 18 units of housing could be created and parking would be in a shared lot.

This approach does place a burden on parking particularly for St. Rose and the weekend services.

High Density 40R – This alternative responds to both the 50 units per acre threshold and the urban design objective of creating a taller element symbolizing gateway into the CBD. The program includes:

- Residential – 63 units in mixed use 9 story building on Broadway and 20 stacked townhouse units on Gerrish and Library.
- Retail – 13,000 square feet units of retail
- Parking – 3 story above ground garage with 180 spaces (80 designated for residential use).

The costs related to high-rise construction and structured parking may make this alternative infeasible, however, the location on the Broadway corridor and the proximity to mass transit support the creation of a Transit Oriented Design project in this location.

Site 7 – 571 Broadway

R-2 – It would not be economically viable to replace the existing single story structure with two residential units and without the ground floor retail would not support the urban design object of expanding a retail presence on Broadway. As a result, this massing study does not replace the existing retail building.

High Density 40R – Inclusion of 571 Broadway is the redevelopment of the St. Rose site at this density would create an efficient mixed use build-out of the multiple sites. Under this scenario 10 apartments could be created in a three story building with 5,900 square feet of retail at grade and parking provided in the adjacent garage. Open space would be provided by balconies and/or decks. This building could be increased to 4 stories and 15 units but at 110 units per acre would be far to dense.

Site 8a – Infill Sites – 83-93 Library

R-2 – The low density alternative would involve creating single family detached structures with parking in between the buildings, accessed from the street. A total of 3 units can be developed under the existing zoning with two parking spaces per residence. Redevelopment of the sites at this density does not relate to the existing context of triple-deckers.

High Density 40 R – 11 to 12 units would have to be placed on the site to achieve 50 units per acre. A stacked townhouse type could be developed but with parking under the structures would be five stories tall. Open space could be provided by porches or decks. This density on such a narrow site continues to place quality of life constraints on the neighborhood.

Site 8b – 148 and 155 Marlboro, 152 and 160 Grove

R-2 – Under existing zoning, this combined site can be improved with 4 units (diagram shows 2-2 family duplex structures).

High Density 40R – as with 83-93 Library, the 11,000 square foot site would accommodate 11 to 12 units at 50 units per acre. Due to the shallow site, the stacked townhouse type would be used with parking under and access from Willow Street. A retaining wall would be required to the rear of the site to address the slopes and open space would be provided by balconies and decks.

Site 8c - 41, 73 and 97 Library Street

R2 – these single sites are too small to be developed as-of-right under the current R2/R3 zoning. This low density option locates a single housing unit on the site and would require parking to be located either in a garage accessed directly off the street or in the side yard if adequate dimension is available. 97 Library is too small to be developed under this scenario.

High Density 40R – With relief from multiple density and dimensional standards, these site could be developed to 50 units per acre. This compromise would create buildings with small units (one bedroom) without off-street parking and with limited open space. It becomes apparent through this exercise that it is not possible to achieve the urban design and quality of life objectives advocated in this study with these small sites. Single family townhouses with parking under at one to one ratio is the only viable alternative.

Site 9a – 153 Grove Street

R-2 – 153 Grove and the adjacent developable lot owned by 165 Grove can both be developed as-of-right but at 6,000 square feet are just under the threshold for two units. The as-of-right approach assumes a minor variance would be acceptable allowing for , a two-family structure on each site as shown with a shared driveway to maximize open space. 153 Grove Street currently is improved with a three family structure so that replacing it with a two family is likely to prove impractical.

High Density – 40R – 50 units per acre yields 13 to 14 units for this site. The massing diagram shows a 4 story, multi-family structure with front to back stacked units and one to one parking. Minimal open space is provided. This approach would present a structure that is taller and certainly more imposing along Grove St. (due to the 90 foot long façade) that is out of character with other buildings on the street. There is also almost no usable open space.

Site 9b – 115, 117 and 119 Grove Street

R2 – Although the site areas are under the threshold to be developed as-of-right, to address the purposes of this study each site was tested independently assuming minor variances. As a result, a total of four units are shown, a two family on 115 Grove and singles on 117 and 119 Grove. 117 and 119 would require a shared driveway and variances from side yard setbacks.

High Density – 40R – At a density of 50 units per acre; 13 units are possible for this site. The irregularly shaped site limits the possibility of a deep building and efficient rear parking. As a result the massing diagram shows a stacked townhouse unit type creating 10 units and 9 on-site parking spaces in garages. Parking would have to be supplemented with on-street spaces to meet the one to one goal. While the four story stacked townhouses would not be out of scale with adjacent buildings like 113 Highland (four stories), it does create a long frontage on Grove and additional pressure on neighborhood parking.