Advancing TOD in Boston's Suburbs:
Advantages and Obstacles in the Entitlement Process

By

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Submitted to the Department of Urban Studies and Planning and the Program in Real Estate Development in partial fulfillment of the requirements for the degrees of

Master in City Planning
and
Master of Science in Real Estate Development

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

February 2011

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Abstract

This thesis is an inquiry into the feasibility of creating new compact, mixed-use transit-oriented development (TOD) within existing suburbs. I have focused on the entitlement phase of projects, during which land is rezoned, permits are granted and development agreements are struck. Municipalities and developers must work together during this process, and I sought to understand the issues from both sides.

For TOD's in Boston's suburbs that have successfully made it through the entitlement phase, what were the most pivotal issues? Pivotal factors can be positive or negative, and either help advance the project or create sticking points. In the case of problematic issues, how were they resolved? To answer these questions, this thesis investigates three case studies: Station Landing in Medford, the Hingham Shipyard in Hingham and Westwood Station in Medford.

All three cases had some pivotal issues in common, although resolution varied among cases. Political will, prior zoning and planning done by the municipality, traffic and schools were important factors in every case.

Recommendations to planners and developers are as follows:

- It's important for both planners and developers to understand the "other side." Working groups are an innovative way to vet issues.
- TOD is not for the faint of heart. Projects require vision, leadership and political will.
- Experience (especially with similar past projects) matters.
- Clear language in the zoning bylaw is crucial.
- Predictable mitigation is best.
- Planners and developers should look for ways to phase projects and create opportunities for smaller developments.
- Transit may not be a necessary ingredient. Flexibility in thinking about TOD and smart growth is vital.
-

Interestingly, while the thesis focuses on TOD, I found that transit was not a critical component for any of the three cases. Therefore, I believe that the findings of this thesis are more broadly applicable to many forms of compact, mixed-use infill development within the suburbs.

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Acknowledgements

There are so many people who helped me during the writing of this thesis, and during my time at MIT. I hope they all know how much I appreciate them.

I thank my parents, Larry and Judy Simonson, for their unconditional love and support. They truly taught me the importance of education and discovery. I also thank them for answering my phone calls at all hours as I struggled through the many challenges of grad school.

I thank my advisor, Terry Szold, and my reader, Tod McGrath, for their encouragement and help, especially as I narrowed down my research question. Their critiques sharpened my work, and their kindness kept me writing.

I thank the many people who spent time talking with my about this thesis, particularly those who agreed to let me interview them. Thank you for being so candid with me, and for filling out the stories behind each project. I really could not have done it without you.

I thank my friends, who understood all those times I had to stay home and work. Thank you especially to Sara Bresnick-Zocchi, Allison Betts, Ann Marie Sweeney, and Miks and Kristine Karklins, who all supported and encouraged me (and often cooked me dinner).

I thank my MIT classmates: it has been humbling and inspiring. Special thanks to Haley Heard, Aditi Mehta and Amy Stitely - I wouldn't have made it without you.

I thank all of the quiet suburban public libraries, where I wrote most of this thesis.

And finally, I thank Brian Carlson, whose capacity for proofreading is exceeded only by his ability to cheer me up on Sundays. He met me in the middle of all this and loved me anyway.

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Chapter 1: Introduction

> "Contestation – between residents who wish to enjoy suburbia and developers who wish to profit from it – lies at the heart of suburban history."
> (Hayden, 2003, p.9)

> "[W]here the transit can only be used for a limited number of destinations, TOD can be viewed largely as a planning tool focusing attention on a previously undifferentiated area, and encouraging a different, more people-oriented type of development…Creating a unique, walkable village in the midst of automobile-oriented sprawl simply because a rail station has been sited, is truly transformative to the community…"
> (Utter, 2009, p. 214).

I have long been interested in suburban history, design and planning. I grew up in a suburb outside of Boston, in a town called Ashland. Perhaps as a result, I'm fiercely protective of the suburbs. I have fond memories of backyard neighborhood wiffle ball, quiet, tree-lined streets, running errands in the car with my mom, and yes, even spending hours upon hours at the mall as a teenager.

At the same time, I'm critical of some common aspects of suburbs. Ashland has a rather quaint, understated downtown. When the commuter rail came to town many years ago, it seemed to me the logical choice for the station location. However, there were all kinds of concerns. Where would people park? What about traffic? And who, exactly, would be using the train? Would Ashland be opened up to the problems of the city? In the end, the station was located away from downtown, in a no-man's land surrounded by parking. It seemed to me a real missed opportunity. Seeing that happen was one of the reasons I decided to come to graduate school.

As I prepared to write this thesis, I wondered, What are the possibilities for future suburban development? Taking a cue from the commuter rail's arrival in my hometown, this thesis focuses on transit-oriented development (TOD) in Boston's suburbs.

Although many ingredients go into making a successful TOD, this thesis focuses on the entitlement phase. During the entitlement process, development rights for a parcel of land are determined: which uses, how much development, size restrictions, parking requirements and a myriad of other conditions. The entitlements that run with the land govern what the development will be. The entitlement phase is also where the developers and planners come together, negotiating permits, agreements and conditions that are acceptable to both sides. This thesis seeks to understand both the developer's and the municipality's side in these negotiations.

The research question is: For TOD's in Boston's suburbs that have successfully made it through the entitlement phase, what were the most pivotal issues? Pivotal factors can be positive or negative, and either help advance the project or create sticking points. In the case of problematic issues, how were they resolved?

To answer these questions, this thesis looks at three case studies. All are large, mixed-use TOD projects in Boston's suburbs, and all have completed the entitlement phase. The three projects are Station Landing in Medford, the Hingham Shipyard in Hingham and Westwood Station in Westwood. The chapter on methodology explains how these three cases were selected.

From my initial research and past experience, it seemed that the most consequential issues during entitlement are related to cars, schools and density. My initial supposition was that traffic and parking, additional burdens on schools and other town services, uses allowed, residential unit types, height and density would be the greatest sticking points.

Each of these issues could be bridged in several ways. For example, parking issues could be resolved with a reduction in required spaces, an agreement to build structured parking, or a plan for shared parking. Solutions depend on the specifics of each case, and I expected to see lots of variety.

Additionally, are there other major factors I hadn't considered? How do both the critical factors and their resolution vary between cases? Ultimately, what can we, within the development and planning communities, learn? How can we advance TOD in the suburbs?

Chapter 2: The Next Layer of Suburban Development

What is a Suburb?

Historian Dolores Hayden (2003, p. 5) describes the suburbs in the US as the accumulation of a series of layers built up over time, in which each historical pattern of development is “defined by characteristic development practices, building technologies, marketing strategies, architectural preferences, and environmental attributes.” Over time, the land surrounding our cities has been developed, not in a fixed pattern, but in a series of different patterns, each reflective of its time in history.

When we look at the suburbs today, it’s possible to perceive these layers of development, many of which continue to coexist. In Hayden’s telling, these layers range from the early “borderlands,” where the city’s elite escaped from the crowds and pollution to picturesque cottages, to streetcar suburbs, up through post-war “sitcom suburbs” and today’s edge cities and “rural fringes.” Hers may be my favorite description of the suburbs, as it captures both the complexity and history of that portion of our built environment. It also shows that the building blocks of the suburbs have changed and transformed throughout history. When I think about the future of suburban development, I think about it as the next layer.

More than half of the US population lives in areas defined by the census as suburban. For those who call the suburbs home, as well as non-suburbanites, the suburbs loom large in American culture and imagination. From lawns and barbeques to the ubiquity of the automobile and the idealization of single-family houses spring critiques of the uniformity of “ticky-tacky boxes” and those who inhabit them. Regardless of how one feels about the suburbs, they are the predominant pattern of development in the US, and therefore deserve our study.

But when we say “suburb,” what do we mean? As discussed, the suburbs have historically gone through iterations of typology and growth: from the self-made suburbs and elite enclaves of the late 1800s, to the emergence of streetcar suburbs in the 1910s, through the post-WW 2 mass-production housing boom, on to subsequent configurations of edge cities, exurbs and boomburbs. These developments have been well documented by historians such as Robert Fishman (1987) and Dolores Hayden (2003). Post war, the line between city and suburbs

increasingly blurs. Suburbs have become “exurbs:” employment, shopping and entertainment centers that are far less reliant upon central cities. Some suburbs are heavily inhabited by a single ethnic group, giving us the term “ethnoburb.” “Sprawl” is a commonly used word to describe the flat, decentralized nature of today’s suburbs, and it carries many of the negative connotations of the suburbs. The terminology alone can be overwhelming.

This makes it especially important to define, for the purposes of this thesis, what a suburb is. While there are no hard and fast rules, all these suburban places have some traits in common. In differentiating amongst different types of suburbs, and parsing the question of what is or isn’t “suburban,” some common themes emerge. These form the basis of my definition of a suburb.

First, as the etymology of the word suggests, a suburb has a secondary relationship to a major city. In many ways, suburbs depend on their central city: for jobs, for cultural and institutional centers, for their economy. I certainly don’t mean to imply that cities have a monopoly on culture, and there is vast documentation of the dispersal of jobs from the city out to the suburbs. However, if you look at the commuting patterns of many towns around Boston, you will find a relatively large percentage commuting into the city. This relationship to the center is one factor that defines a suburb.

Second, suburbs are marked by their separation of uses. With the exception of historic centers and villages built before the wide acceptance of Euclidean, single-use zoning, uses are segregated. Industrial development happens along the edges, commercial development follows strips of road, and residential, the most protected use, is typically well buffered from other uses. There will always be exceptions, but predominant separation of uses is another clear indicator of a suburb.

Hand in hand with separation of uses is low density. Land values were historically low enough to allow for things to be spread out, and a network of roads and access to cars allow for horizontal expansion. Housing tends to be single-family, further decreasing the density. Preference for single-family housing in the US is rooted in many sources: consumer preferences, FHA and tax policy, mortgage underwriting practices and lobbying by home builders all play a role. While true consumer preferences are certainly debatable, single-family

homes dominate the suburbs. Minimum residential lot size zoning is the most important way that towns keep low densities.

Finally, the car serves as the primary mode of transportation in the suburbs. Even in places that are served by buses, trains and other transit and do not technically require a car, your mobility will be severely limited without one. The convenience and ubiquity of the automobile defines suburban transportation, and brings with it substantial built infrastructure such as roads and parking lots. Reliance on an automobile for mobility is a hallmark of the suburbs.

"The Scrawl About Sprawl"

Even as suburban development has continued to outpace urban development (Katz and Lang, 2003, p. 6), the future of the suburbs has increasingly come into question. In professional and popular culture, the debate has highly polarized sides, delivering either a scathing critique of sprawl or a defense of the suburbs as an accurate reflection of accumulated personal preferences for privacy, space and mobility. There are models put forth by either side: New Urbanism and smart growth to counteract sprawl and a defense of individual property rights and local control on the other. Scholar and urban planning practitioner Alex Krieger aptly names the debate, "the scrawl about sprawl" (Krieger, 2005, p. 53).

Krieger presents a rare, even-handed look at the debate. The anti-sprawl side has a range of concerns. Perhaps the most compelling critique of sprawl stems from the environmental issues: energy usage, pollution generated by cars and the preservation of open space. Faced with build-out in both cities and their established suburbs, there is increasing development pressure on existing suburbs and open space at the periphery. This generates concern about the amount of land required if suburbs continue to develop following the same patterns. It has also been argued that compactly built neighborhoods save far more energy than green buildings alone, and that compact city form is the best way to decrease our carbon footprint. There are aesthetic critiques, of ugliness and repetition, and places without identity, "Anytowns." There are social critiques of isolation and health critiques of obesity (Krieger, 2005). There are problems with traffic congestion constraining mobility and lengthening commutes. There are market arguments that the existing options (for housing and neighborhoods) do not contain enough variety, and do not adequately reflect new demands from a changing demographic.

Demonstrating the highly ideological nature of the suburban debate, Krieger comments that, "In the growing literature on sprawl, a predominant view holds urban sprawl accountable for much that is wrong with America" (2005, p. 44).

On the other side of the fence, critics question the claims made by anti-sprawlers. They argue that the market would supply alternatives if there were indeed stronger demand for denser housing. They point out that urban growth boundaries (as in Portland, Oregon) result in increased land prices and decreased housing affordability. They note that, in most places, going without a car is simply not practical. In his book *The Vanishing Automobile and Other Urban Myths*, Cato Institute scholar Randal O'Toole argues that people like to drive and prefer large houses. Critics also suggest that anti-sprawl advocacy is really a form of cultural elitism: that the case against sprawl is really based in self-protection. (Krieger, 2005). As scholar Robert Bruegmann points out, "'sprawl' is always almost used to refer to places other than where the speaker lives" (Nicolaides and Wiese, 2006, p. 492).

As in many polarizing issues, many of us find ourselves somewhere in the middle. In essence, I think the suburbs are ok. I don't think that this form of development is as detrimental as anti-sprawl activists claim it is. I think it speaks volumes that the suburbs remain such a popular place for so many to live. I think it's important to recognize the merits of existing suburban places, respecting personal preferences regarding where to live.

However, I also think it's important to consider how things might be improved. To me, the most compelling questions are around what to do when redeveloping land in existing suburbs. Scholar Ellen Dunham-Jones describes her model of infill suburban development of "retrofits." Failing malls, defunct industrial parks and other underutilized land in the suburbs are due, she says, for a retrofit. In towns where parcels and uses are outdated, the retrofit approach seeks redevelopment that provides a compact, walkable, mixed-use alternative. They are incremental changes within existing built suburban fabric (Dunham-Jones, 2009).

Next Layer: Arguments and Models for Compact Retrofits

There are places in the suburbs where sections of denser development make sense. The arguments for denser development are well established by both the New Urbanists and Smart

Growth advocates: the charter of the Congress for the New Urbanism (the CNU) says that, "neighborhoods should be compact, pedestrian-friendly, and mixed-use" (CNU, 1996). Denser development, it is argued, conserves land and energy (both in the heating and cooling efficiencies obtained by housing units with shared walls and in a decreased reliance on driving), creates a critical mass of residents for things like retail, services and transit, and promotes walkability.

Dunham-Jones has outlined several factors driving compact retrofits in existing suburbs. First, outdated properties, mostly found in inner-ring suburbs, create blight that incentivizes the community to push for redevelopment. Second, as "bedroom suburbs" mature, there's a desire to create a place, or a center of gravity within the town, which reflects the town's identity. Third, government policies emphasizing smart growth encourage denser development (2007).

Finally, there are shifts in the market. As traffic congestion worsens, relying on the car for every trip becomes far less convenient, and the demand for walkable, mixed-use and transit-oriented places increases. As demographics change, so do housing preferences and desirable places to live. First, there has been a shift in the composition of household units since the post-war suburban boom. The proportion of "Leave it to Beaver"-style, nuclear suburban families of two parents and kids has decreased since the post-war suburban building boom, and now represents only about a quarter of the population. Different types of households may want more options in housing choice. Second, in the US we are looking ahead to a "graying" of the population as baby boomers retire. Many predict that the expansion of this group will create stronger demand for alternative types of housing: as people age, they may want to downsize from single-family suburban homes, and may look for places where it is less necessary to drive. Lastly, the current economic downturn has greatly decreased access to mortgages for many households, arguably lowering the demand for single-family, suburban homes.

Although it is both unrealistic and undesirable to make all of our suburban fabric denser, pockets of density, or retrofits, within existing suburbs are likely to become more common. If infill, retrofit theory describes the implementation of these areas of compact, mixed-use, walkable development within existing suburbs, what are the models for these places?

It's important to note that there are few bright lines around each of the models, and that they tend to overlap one another. They are less like discrete alternatives and more like variations on a theme. I would argue that all of the models fall under the umbrella of smart growth. Smart growth is proposed as an alternative to sprawl, and as an umbrella concept, its goals tend to read broadly. As one of my research advisors once said, "What's the alternative to smart growth? Stupid growth?" According to the Smart Growth Network, "smart growth invests time, attention, and resources in restoring community and vitality to center cities and older suburbs. New smart growth is more town-centered, is transit and pedestrian oriented, and has a greater mix of housing, commercial and retail uses. It also preserves open space and many other environmental amenities" (Smart Growth Network).

Essentially, smart growth advocates for more efficient use of land and resources, resulting in more compact growth as well as growth in areas already developed. Smart growth promotes the benefits of developing density and use mix: walkability, community, decreased car usage, housing choice and affordability and conservation of energy and open space. While smart growth may be anti-sprawl, it is not anti-growth.

New Urbanism presents perhaps the most comprehensive and concrete model for compact, mixed-use suburban development. The Congress for the New Urbanism was founded in 1993, although the underlying ideas have been around much longer. New Urbanism represents a reaction against, and an alternative to, "the spread of placeless sprawl" (CNU, 1996). New Urbanism is rooted in the architectural and urban design community, and underscores the importance of good design and the built environment. Its principles are organized at several scales, from the region to the block, and reinforce common themes: compact, mixed-use development, walkability and the importance of the pedestrian environment, the protection of parks and green space, a range of housing alternatives and connections to transit. The physical model for New Urbanism is found in older, pre-World War II American towns, and contains elements such as the main street (with housing above ground-floor retail), continuous gridded streets with sidewalks to promote walkability, clustering of civic buildings (libraries, schools, municipal buildings) around public spaces and mix of housing types at higher densities than commonly found in more suburban places.

Although they have distinct histories, both Traditional Neighborhood Development (TND) and Transit-Oriented Development (TOD) share many characteristics with New Urbanism. TND focuses, as its name suggests, on the scale of the neighborhood. It is perhaps best seen as New Urbanism applied to the neighborhood scale. The presence of transit is necessary for TOD, which argues that compact, walkable development should occur around transit nodes. Transit allows fewer people to drive, while at the same time, denser development provides the critical mass necessary for a workable transit station, creating a reciprocal relationship. This thesis focuses on TOD in Boston's suburbs, and the next chapter will dig into the history, principles and making of TOD.

Chapter 3: Transit Oriented Development

On its face, transit-oriented development (TOD) seems fairly straightforward: developing more densely around transit nodes. But this glosses over the underlying theory, which explains both *why* this form of development is important and *how* it can be done most successfully. In this chapter I will present the history of TOD theory and form, outline current debates within the TOD movement and define what I consider to be the most important elements in creating successful TOD.

History of TOD

Within the planning and urban design communities, Peter Calthorpe is perhaps the biggest name in TOD. In 1993, he published *The Next American Metropolis: Ecology, Community and the American Dream*, a seminal work in TOD literature and practice. In this book he lays out a full theory of TOD, which he describes as "an attempt to map out a new direction for growth" in response to the problems of the suburbs. However, the ideas leading to TOD stem from many sources, and Calthorpe himself acknowledges an array of historical inspiration: Ruskin, the City Beautiful Movement, medieval cities, Garden Cities, America's streetcar suburbs and traditional towns, and the theory and criticism of Leon Krier and Jane Jacobs (p. 15).

Urban economic theory tells us that development has been oriented towards transportation since the beginning. This is why cities developed around harbors and rivers, and why walking distances served as a metric for city size and growth. The emphasis here is on transit as a particular form of transportation: people traveling in shared vehicles that do not belong to them privately.

In the US, this began with the horse-drawn carriages of the mid-1800s. The later streetcar suburbs, as described by historian Sam Bass Warner in his book, *Streetcar Suburbs*, were a model of real estate and transit interests working together to decentralize the city and facilitate movement out to the suburbs. In many cases, the developers built the streetcars that would serve new developments, creating a mixed-use corridor along the streetcar line and residential development within walking distance to the streetcar stops. This model has been called "development-oriented transit," as the transit lines were built to serve development and not the

other way around (Dittmar, Belzer and Autler, 2004, p. 5). Starting in the late 1800s, these streetcar suburbs represented a heyday of compact, mixed-use suburban development, and prior to 1916, the US was the world leader in transit rail miles (Carlton, 2007).

The expansion of development out to the suburbs was seen by many as a vehicle of social reform. The cities – crowded, chaotic, unhygienic and lacking in outdoor space for recreation - were considered the root of many social problems by reformers of the day. These perceived social ills included isolation, a lack of civic participation and a need for more informal social controls to reduce delinquency. (Interestingly, many of these same social problems have been raised in response to modern-day sprawl). Clarence Perry's "Neighborhood Unit Formula" of 1923 was an important model for development of the burgeoning suburbs in the US (Rohe, 2009), and a key precedent to current TOD models.

The elementary school formed the basis for Perry's Neighborhood Unit. According to the theory, each neighborhood would have enough people to support an elementary school, which would be located at the center. In order to ensure that all children could walk to school, the neighborhood would extend no more than a ½ mile radius around the school at the center. Civic buildings and spaces would share the center of the neighborhood, while commercial uses were pushed to the periphery, as a sort of buffer that could be

Perry's Neighborhood Unit Plan (Allaire, 1960)

accessed by adjacent neighborhoods as well. Streets within the neighborhood should be designed to discourage through traffic, making streets quieter and safer (Rohe, 2009). Walkable streets and defined civic spaces would encourage a stronger sense of community within the neighborhood. Eventually, Perry's neighborhood unit theory would have a strong influence on New Urbanism.

The rise of the automobile would permanently change both the viability of transit and the forms of suburban development. Many lay the blame for sprawl at the feet of the car, and it is undoubtedly true that the rise of the car, and its accompanying infrastructure, changed the shape of the landscape in the US. But changes in mobility have been part of human evolution throughout history, and the car opened up low-density suburban space – previously, largely the domain of the wealthy escaping the city – to a much larger segment of the population. The car also provides unparalleled personal point-to-point mobility – except, of course, when there is traffic.

The period following World War II saw an explosion in suburban development, dismantling of rail systems and a shift to the bus as the primary means of transit in most cities. The car promised freedom, but also generated traffic, and the buses were stuck in the same traffic as the cars. Worsening traffic congestion drove the opening of new rail transit in several cities in the 1970s, but the orientation of land around the stations remained the province of the car. Large lots served rail stations for suburbanites to "park and ride" (Dittmar, Belzer and Autler, 2004).

At the same time, movements to provide alternatives to sprawling development grew. These movements were largely based upon environmental and social concerns. The suburbs were coming under increasing fire for their conformity and lack of civic and social life, as described in William Whyte's 1956 *The Organization Man*. Later critics derided the suburbs for creating air and water pollution, driving traffic congestion, destroying natural habitat and eating up open space (Rohe, 2009).

Traditional Neighborhood Development, and later TOD, came out of these two broad streams of thought: a desire for community through physical design and environmental sustainability through reduced car use. The 1960s saw the introduction of the planned unit development (PUD), which allowed for a mix of house types and uses on a large site, controlled via site plan

review. The PUD mandated comprehensive site planning and allowed for the buildings to be more compactly clustered, preserving open space on the rest of the site. The PUD was followed and improved upon by Traditional Neighborhood Design in the 1980s. Seaside, Florida is regarded by many as the first model, and its small lots, narrow streets with sidewalks and ubiquitous front porches hearken back to pre-World War II small towns (Rohe, 2009).

Site Plan of Seaside, Florida (Back to the Village)

TOD is a close cousin to TND, and, as noted above, Calthorpe is widely credited with defining and generating interest in TOD (Dittmar, Belzer and Autler, 2004 and Carlton, 2007). In his 1993 book, *The Next American Metropolis,* Calthorpe describes TOD:

> …moderate and high-density housing, along with complimentary public uses, jobs, retail and services, are concentrated at mixed-use developments at strategic points along the regional transit system (p. 41).

TOD draws from his previous work on walkable neighborhoods called “pedestrian pockets,” TND, Urban Villages and Compact Communities, but adds an emphasis on integrating growth and development with regional transit. The three major principles for TOD design guidelines that Calthorpe presents are: regional growth shaped around expansion of transit and more

compact urban form, replacing single-use zoning with standards for mixed-use, walkable neighborhoods and placing emphasis on the public domain and pedestrians, rather than on private space and cars (Calthorpe, 1993, p. 41).

Walkability is the key aspect to TOD, at both ends of the transit trip, and mixed-use neighborhoods around transit allow for convenience and combining trips (Calthorpe, 1993, 41-42). Calthorpe acknowledges that cars are here to stay, but maintains that pedestrian focus is what makes great towns, neighborhoods and communities. Practically speaking, he says, streets must be narrower and parking lots relegated to the back of buildings. Walkability provides chances for informal encounters with others, the backbone of civic space, and additional mobility for those who cannot drive. Moreover, streets must lead to "useful destinations." In a traditional American town, the commercial and civic center remains clearly defined and serves as a connector, integrating a mix of uses and users (pp. 17-21).

Calthorpe lays out the principles of TOD as follows:

- Organize growth on a regional level to be compact and transit-supportive
- Place commercial, housing, jobs, parks and civic uses within walking distance of transit stops
- Create pedestrian-friendly street networks which directly connect local destinations
- Provide a mix of housing types, densities and costs
- Preserve sensitive habitat, riparian zones, and high quality open space
- Make public spaces the focus of building orientation and neighborhood activity
- Encourage infill and redevelopment along transit corridors within existing neighborhoods (p. 43)

It's important to note that affordability is also a goal of TOD. The average American household spends about 20% of its total budget on transportation. In a TOD these expenses can be decreased by having fewer cars per household (Calthorpe, 1993, p. 28). Additionally, a range of housing types and options allows for a greater variety of household income levels.

In addition to written guidelines, Calthorpe captures his ideas for TOD in a series of drawings and diagrams. Comparing these site plans to the earlier work done by Clarence Perry and proponents of Traditional Neighborhood Design, the similarities are striking.

Calthorpe's TOD diagram (1993)

Up for Debate: TOD Today

From the publication of *Next American Metropolis*, how has TOD in the US evolved and been implemented? In their 2004 book *The New Transit Town*, editors Hank Dittmar and Gloria Ohland (both of the Center for Transit-Oriented Development) attempt an answer to this question, as they assess and critique TOD to date through a series of essays and case studies. Calthorpe himself contributed an introduction to the book, in which he points out that TOD is still in its "adolescent" stage, and calls for increased regional planning to take full advantage of TOD. TOD wasn't intended to be stand-alone, isolated developments, but rather developments integrated with transit within a regional network, or along a corridor (Calthorpe, 2004).

There are many notable examples of TOD within the US. One of the best known is the Rosslyn-Ballston Corridor in Arlington County, Virginia. The clustering of residential, office and commercial creates a critical mass of activity that both supports and benefits from transit (Porter, 1998). This was achieved with a high degree of regional coordination. Starting in the 1960s, federal planning agencies laid out the rail lines to coincide with planned corridor development. The local jurisdictions along the corridor planned their development to reinforce the transit lines (Porter, 1998).

On the west coast, both the Portland metropolitan area and the San Francisco Bay area showcase the best of TOD. In particular, Portland's METRO planning agency and Tri-Met transit authority have worked to coordinate land use planning with expansion of the city's light rail network (Porter, 1998).

As Calthorpe points out, TOD as a development and policy model is still relatively new – and as such, many issues are still being worked out. Within the literature on TOD, one finds a range of critiques of both TOD theory and current practice. The key critiques are as follows.

First is a debate about the actual relationship between the development and the transit at any given project. Many suggest that what is called TOD is actually Transit-Adjacent Development (TAD), Transit-Related Development or Development Near Transit. Without introducing a whole new set of acronyms, the point is that many developments fall short on delivering the synchronicity promised by TOD: denser development and the creation of a destination (through appropriate use mix) supports the transit station and increases ridership, while the presence of quality transit reduces driving and vehicle miles traveled (VMT).

It turns out that both sides of the ridership-development equation are up for debate. In more suburban areas, in particular, resistance to density has meant that TODs fall short of generating the critical mass considered necessary for generating increased ridership (Porter, 1998). There is also the problem of self-selection: namely, who chooses to live at TOD? It has been found that a high percentage were using transit to commute *before* relocating to housing in a TOD, and therefore perhaps ridership is not increasing much as a result of the TOD (Boarnet and Crane, 1997).

Hoped-for reductions in driving and VMT are also questioned. This has a lot to do with the regional system of transit, transportation and land use: if transit can't get you to your destination efficiently – or to multiple destinations – the car will be preferable. This is especially challenging in places like the suburbs that were built in diffuse rather than centralized patterns. For example, although transit may be a good way to get to your job, if you cannot also access destinations for your after-work routines and errands (the gym, the grocery store, the day care), driving is likely to be preferable. Lacking a comprehensive network of both efficient transit and desired destinations and services, it's hard for transit to compete against the car. The degree to which people actually want to get out of their cars is also up for debate: there are strong social and economic factors that support driving. Even in Calthorpe's conception of TOD, cars would remain, although they would be used less. Still, many TODs continue to be reliant on cars, as evidenced by high parking ratios (Quinn, 2006).

With its roots in the social theory of creating better neighborhoods through physical design, TOD's results are mixed. The effectiveness of creating a feeling of "community" is undeniably difficult to measure, but studies have shown that residents of TND feel no greater sense of

community than do residents of typical suburban subdivisions (Rohe, 2009). TODs are also cited for their lack of connection to surrounding neighborhoods. There may be good pedestrian connections to the transit station, but many TODs exist as islands, with limited connections to adjacent neighborhoods (Porter, 1998). The goal of increased affordability is questionable, since both higher construction costs and higher home prices offset the savings from decreased car ownership. The housing price premium associated with being near a transit station, ranging from 8% and 30% (Renne, 2007) is good news for the market, but tough for affordability.

Finally, TOD is not appropriate for every location. It's unrealistic for low-density places (Quinn, 2006), and unlikely to happen in places with strong political resistance to either density or transit. Memorably, as one of my professors once asked, "if it's such a great concept, why isn't more of it being built?" There's no single answer, of course, but I think feasibility is a significant factor. I'll explore the obstacles to making TOD happen in Chapter 4.

Defining TOD

Clearly TODs are not a perfect solution, or feasible or appropriate everywhere, but I believe they are an important model for suburban retrofits, even when they don't live up to all of their expectations. Particularly for metro areas that have existing, viable rail, TODs are a critical part of the toolkit.

Like the "suburbs," TOD can be tricky to define. In a TOD, the physical development and transit mode should both support each other, and create a walkable neighborhood with a complimentary mix of uses where people do not have to rely solely on a car to get around. But when does something stop being a TOD and become a Lifestyle Center? Where does TOD stop and plain old good urban design begin?

Calthorpe spelled out his principles of a TOD, as described above. Almost more important than the transit is the focus on the pedestrian: scale, street layout, amenities, shops and schools in walking distance; even with cars in the background, the pedestrian is king in a TOD. Counter-intuitively, Calthorpe argues that TOD can even exist without transit. He says that the benefits of TOD, in the form of more walkable, integrated-use communities, reduce car dependence in several ways, regardless of the presence of transit. Even without transit, TODs reduce trip

lengths, combine destinations and promote walking and biking. He argues that TODs can create an armature to support future transit, and that transit is far more dependent on TODs than the other way around: "TODs can exist without transit, but our transit systems have little chance of surviving in the low-density environment of sprawling suburbs without TODs" (1993, p. 42).

I think that, lacking transit, it's hard to make a case for TOD. For the purposes of this thesis, transit is one component required for TOD. Calthorpe makes an interesting point, though. Transit provides an armature, but perhaps what we value more is the opportunity to live and work in an environment that doesn't rely on the car for every trip. In the three case studies presented in this thesis, transit plays a varying – and not always central - role. As transit itself is less prominent, TOD becomes more a means of creating pockets of higher-density, walkable places in the suburbs.

In *The New Transit Town*, Hank Dittmar and Shelley Poticha propose a new, "performance-based" definition of TOD. They argue that the measure of a successful TOD is its performance, not its physical form. In order for a development to be called a TOD, it must achieve the following five goals:

- Location efficiency
- Rich mix of choices
- Value capture
- Place making
- Resolution of the tension between place and mode (p. 22)

Location efficiency describes travel behavior, and its components are density (or critical mass), transit accessibility and pedestrian environment and amenities. Mix of choices covers both a mix of uses as well as a range of housing choices, allowing for different income groups and household types. Value capture is accrued to a range of people involved in a TOD: from developers and investors to the transit authority to individual residents. Resolution between the place and mode refers to the ability of a TOD to be both a destination in its own right and a part of a larger, regional system (Dittmar and Poticha, 2004, pp. 22-32).

There are clearly many ways to define and measure TOD, and the concept of TOD continues to evolve as more projects are built. For the purposes of this thesis, and evaluation of the case

studies to follow, I have distilled the elements that I think define TOD and contribute to a successful project.

- First, TOD must be connected to a viable, quality means of transit.

- Second, TOD follows many of the guidelines of Traditional Neighborhood Design, especially those that aim to create a pedestrian-friendly environment: sidewalks, street connectivity and scale.

- Third, TOD provides true walkability. Although many may still own cars, a hallmark of TOD is not having to get in the car for every trip. Having a mix of appropriate uses near the transit stop and within walking distance (1/2 mile) is critical. Depending on the size of the TOD, use mix may be achieved within one project. In the case of infill development, other uses may already be existing and adjacent. In this case, what's most critical is the presence of a high quality, walkable connection between uses.

- Fourth, it is necessary to accommodate cars, while still retaining a pedestrian-centered environment. In almost every place in the US, the car is still part of the equation. In theory, people living and working at TODs will drive less and use transit more, and while car ownership persists, there should be a decrease in driving and overall VMT.

- Fifth, to support both a mix of uses and a transit station, a TOD must create a critical mass and density of people.

- Finally, for a TOD to even get off the ground, it must be economically feasible.

Chapter 4: Obstacles to Making TOD Happen

Each form of real estate development has its own difficulties and challenges, and TOD is no exception. But as discussed in Chapter 3, if TOD is such a great idea, then why aren't we seeing more of it happen? How does the theory stall out in practice, within both the planning and development communities? I'll argue that, even in places that seem well-suited to TOD, there are significant obstacles that undermine the successful creation of TOD.

It's the Economy, Stupid

Despite enthusiasm for TOD within the planning and urban design communities, and substantial public investment in station area plans, "the market reality is that TOD is just beginning to gather momentum in the United States" (Utter, 2009, p. 209). The public sector can help to facilitate TOD, through policies, incentives and the construction of transit infrastructure. While planning can lay the framework, it largely falls to the private development sector to build and implement TOD. The private development community is driven by the bottom line, and the economics of the deals therefore drive the creation of TOD.

One particularly animated discussion surrounding TOD deals with the market. TOD, although it is based in many ways on traditional town centers anchored by a rail station, is a marked departure from typical suburban fabric. Don't people move to the suburbs for precisely what TOD stands in opposition to: single-family homes, lots of space and trees, easy parking? What is the market for TOD, especially in the suburbs?

TOD is currently a niche product. In suburban areas, these developments are typically targeted at empty nesters and young professionals. There is arguably a market for family housing within TODs as well, but as we will see in several of the case studies, towns seeking to limit the financial impact on their schools will attempt to restrict the number of "family friendly" 3-bedroom units. With the coming "graying" of America, there is strong demographic support for TODs. Almost 20% of the US population will be over 65 by 2030. Currently, only 60% of the population drives a car, and that percentage is expected to decrease to around 50% as our population ages. As seniors drive less, the major characteristics of TOD – walkable services and transportation alternatives – will become more highly valued (Utter, 2009, p. 210). Demand for

TOD comes from other factors as well: smaller households, people looking for smaller homes with a higher level of neighborhood amenities, and increasing traffic congestion that makes walkability and transit more attractive (Renne, 2007).

A 2004 report, written by the Center for Transit-Oriented Development and issued by the US DOT, found that the demand for housing near transit is expected to more than double by 2025. This is a national estimate, based on 27 regions that currently have transit systems (such as Boston) and an additional 15 regions that are planning to build rail transit by 2025. Based on regional household demand projections and demographic trends, the report focuses on housing demand within transit zones (land within a ½ mile radius of a station). Six million households currently live with ½ mile of a transit station, and the study finds that 14.6 million household could be looking for housing in transit zones by 2025. Maturing suburban town centers hold particular promise for capturing future demand, with increases in density supporting better transit (CTOD, 2004).

Residential is the primary use in most TODs, and mixed-use projects typically have retail and office components in addition to the residential "base." The retail market can be thought of in two ways. First, it provides services and amenities to residents and transit users: dry cleaners, pharmacies, banks, daycares, gyms, grocery stores and convenience retail. Second, the retail program can be a critical place-maker, and put the TOD on the map as a regional destination. This can take several forms: special entertainment uses like a theater, a concentration of restaurants unique to the area, or even a Main Street anchored by a cluster of larger, regional stores. Ground floor retail brings life to pedestrian sidewalks and public spaces.

There are several drivers for the office market in TODs, particularly in suburban locations. Office space in the US has been decentralizing over the past several decades, even in locations like Boston that retain a strong urban CBD. A rise in fuel prices may lead, counter-intuitively, to a further decentralization of jobs, as people will want to work closer to where they live. Connected to walkable retail, including restaurants, TODs provide desired amenities for office workers. The transit station itself is an asset, making commutes easier and providing alternative transportation options for workers as fuel prices rise.

Gauging the market for TOD depends whose market studies and accounting you believe – and of course, every location has its own specifics. Given that TOD is, at the very least, a niche market, we might still expect to see more of it built. But lack of demand is not the reason why so few TODs are built (Renne, 2007). Even where the market is strong, the private sector faces a host of other obstacles in developing TOD, related to putting together the "deal" for the project.

The real estate world works according to "products," and those outside the major "food groups" of residential, office, industrial and retail bring unique challenges. Products such as mixed-use TOD, while composed of more traditional products, are still relatively new. Newer products have less proven track records, and are therefore perceived as riskier. Basic real estate finance theory tells us that as risk – actual or perceived – rises, so must return. In a competitive capital market, TODs must compete with other, more standard and less risky projects for sources of equity and debt, offering higher returns to offset higher risks. Getting lenders and investors on board can prove quite challenging, especially in markets where there are few prior TOD projects to look to as comparables. In the current recession, where funding sources for any new development are scarce, it is especially difficult to finance TOD.

Risk in developing TODs comes from several sources, aside from being a new, less familiar product. They are large, phased projects, and the timelines are longer. In addition to higher interest rates (to offset higher risk), developers need to carry loans for longer periods. Often it is necessary (or required by the municipality) to build the infrastructure for the entire project up front, incurring significant initial costs that are repaid only over a long time period. A longer build-out period makes a project more sensitive to changes in the market, and it is not uncommon for a project to change components of its program to better fit the market. A mix of uses is in some ways a hedge against the market, but many projects run on small initial margins, and getting the timing right for simultaneous lease-up is difficult. Finally, TODs face significant entitlement risk during the zoning and permitting of the project. Entitlement is discussed in more detail later in this chapter.

TOD deals are also simply more complicated and difficult to put together than standard real estate products. It takes a developer who both wants to advocate for a TOD and has the capacity to bring it to fruition. There are few developers who are structured and capitalized to be able to execute TODs. Almost without exception, TODs require some kind of public funding.

While public money shores up the deal, it introduces more players into the mix, necessarily complicating negotiations (Utter, 2009, pp. 218-220). Putting together a large enough parcel proximate to a station can also be a challenge. Acquiring and assembling contiguous parcels can take years of negotiations. Finally, by its very nature, mixed-use creates a more complicated project. Particularly for vertical mixed use, design and construction comes at a premium. Permitting for mixed-use in municipalities accustomed to single-use zoning can be an uphill battle. As will be seen in the three case studies this thesis examines, even after the zoning is in place, securing permits can be a challenge.

Given a good market for TOD, the economics of the project ultimately come down to a cost-benefit trade off. The flip side to increased risk is the premiums achieved in successful TODs. In a 2009 paper, scholar Marilee Utter attributes revenues premiums, of 15-25% over time, to eight attributes:

- Greater density allows construction of more income-producing square feet
- Mixture of uses allows faster absorption period than if project were all a single use
- Reductions in parking ratios due to transit and shared parking
- Rental premiums for unique unit types (lofts, live-work versus single-family homes)
- Rental premiums for bringing new users to the submarket
- Good access and visibility from transit and cars
- Civic uses and active public spaces are a destination for a variety of people
- As transit becomes more desirable, rents are shored up as buildings age (2009, pp. 214-215)

Density is critical, as regression models show that land values proximate to stations are between 8% and 30% above the market, controlling for other variables. The ULI found TODs to be a strong investment, as the underlying land values appreciate more in bull markets and hold their value better in bear markets (Renne, 2007).

In the same 2009 paper, Utter finds that these premiums are offset by increased costs of 10-20%. She attributes cost increases to:

- Entitlements
- Design complexity, especially true for vertical mixed use
- Parking. The cost of structured parking (garages, decks) and underground parking is often prohibitive, especially in suburban situations where people expect free parking
- Public amenities: attractive infrastructure, place-making, landscaping, built up front

- Community benefits (uses on site such as affordable housing, civic uses) or mitigation payments
- Higher financing expenses, including the need to carry money for a longer time at a higher rate (2009, pp. 215-218)

Given the risks and complications, it's clear why many private developers might pass on TOD, even as the market for the product grows stronger.

The Entitlement Process: If there's One Thing People Hate More Than Sprawl, It's Density

It's a standard saying in planning circles, but there is ample evidence that despite the backlash against sprawl, "density" is bad word in much of the US. "Americans generally are averse to the idea of high or even moderate densities of residential and commercial development, which they tend to associate with social ills and economic deprivation" (Porter, 1998). Journalist Anthony Flint cites resistance to density as the primary obstacle to building compact, mixed-use suburban retrofits and TOD (Flint, 2005).

The entitlement process is really where the rubber hits the road for most projects, and it is the focus of this thesis. It captures much of the negotiation that happens between a developer and a municipality in allowing the project to move forward. Getting a property "entitled" results in getting the required building permits. For large projects such as TOD, this may entail a change in the underlying zoning, site plan reviews, variances and special permits. Where the underlying, or existing, zoning for the site does not allow the uses proposed "as of right," this can be a time-consuming and difficult process. In some cases, the uses and density are allowed by the zoning ordinance, but only with a special permit. These special permit uses are best thought of as "maybe" uses: the town review body (typically, the planning board) has broad discretionary power.

Particularly in the suburbs, TODs are a departure from what is typically allowed under single-use, Euclidean zoning. There is the allowable mix of uses to negotiate, and then there is the question of density. As discussed, achieving sufficient density is critical to the success of TOD. Economically, many TODs simply won't work without increased density driving revenues. Density is also necessary for creating a "critical" mass to sustain retailers, support transit and create the pedestrian street life that contributes so much to place-making.

Density tends to be a real sticking point. As much we in the planning community like the ideas of smart growth, New Urbanism and TOD, many of us prefer that that new development happen on the other side of town, and not right next door. Smart growth is certainly not immune from NIMBY-ism. Likewise, in states such as Massachusetts where towns fund their services independently, one town's benefit may be another town's burden. As we will see in one of the case studies, while one town was set to receive all of the tax benefits and mitigation money from a proposed TOD, the neighboring town was set to receive a heavy increase in traffic – and no tax benefits. Lacking regional planning with "teeth," towns are often in a position to compete for employment share and tax base, rather than cooperate with one another (Boarnet and Crane, 1997).

It's important to acknowledge that these are not unfounded concerns. Towns are often responsible for paying for much of their own services, and their revenue is raised largely through property taxes. For many towns, consideration of TOD involves a cost-benefit analysis. How much will the development contribute to the town, in terms of tax base, affordable housing, amenities and so on? How much will it cost the town to provide the necessary services for the development, such as schools, roads, police and fire and so forth? For example, five hundred units of housing are likely to generate significant traffic. If families with children move into these units, the increased costs for schooling may not offset the increases in property taxes. For municipalities weighing the benefits of growth against the ability to provide services, it's a fine balance.

Density can also have negative connotations that are less easily quantified. It can be associated with places that are more "urban," and may be opposed as being detrimental to the town's character. This can be code for "it will bring poor people into town," but in suburban locations, there may be legitimate concerns about changing the bucolic nature of the town. In some places, increased density in the form of TODs is a non-starter, and I have selected my case studies to omit towns that are not open to selectively increasing density to allow TOD to happen.

However, even in towns that proactively embrace TOD, the entitlement process can remain a significant barrier. According to the Center for Transit-Oriented Development's 2004 report,

“there aren’t enough good examples of TOD to showcase, there are too few developers and planners with expertise in TOD, and too few elected officials and advocates to champion exemplary projects” (CTOD, 2004, p. 9). With a lack of successful examples to point to, it can be hard to develop the type of leadership required to advocate for the creation of a TOD.

A TOD is often the largest project ever reviewed by a small suburban town. As towns are typically more accustomed to small subdivisions and commercial strips, TOD review presents a significant strain on a town’s internal capacity. Consultants may be brought in for peer review assistance, adding needed expertise but also complicating the process (and adding potentially significant expense). The stakes are quite high: the project represents a large change for the town, and sets precedents for future developments. With little experience and limited capacity, the review processes that happen during TOD entitlement are filled with unknowns. The process is often much less predictable than typical projects, in terms of what will be required, what is likely to be approved and how long it will take. This lack of predictability creates further risk for prospective developers.

To move TOD forward from both the public and private sides, the entitlement process is a critical component. A study by prominent TOD researcher Robert Cervero found that “planners ranked expedited development approvals at the bottom of a list of planning tools to promote TOD, whereas developers felt this was the most important tool” (Renne, 2007). In another study (2004), scholars Jonathan Levine and Aseem Inam found that “the lack of alternative development forms is less a market failure than a planning failure, as municipal regulations tend to constrain the ability of developers to provide alternatives to low-density, auto-oriented development.” They argue that regulations are a much stronger barrier to smart growth developments (including TOD) than lack of interest in the market. In the Northeast, regulation is the highest-ranked barrier to alternative forms of development (2004). The next chapter will look at other considerations specific to Boston’s context.

Chapter 5: Boston's Context

History of Boston's Burbs

Massachusetts is characterized by its patchwork of individual towns, each unique in character and planning. With the area's long history, many towns have older villages embedded in successive waves of development. Like Dolores Hayden's "layered" suburbs, the suburbs surrounding Boston are rich in history and show a variety of suburban typologies.

THE PEDESTRIAN CITY OF 1850 (2 mile radius)
Boston Proper
East Boston
South Boston
Cambridge
Charlestown
Roxbury
THE PERIPHERAL TOWNS IN 1850 (3 mile radius)
Brookline
Chelsea
Dorchester
Somerville
THE NEW SUBURBS IN 1900 (10 mile radius)

MAP 1. The pedestrian city of 1850 and the suburban metropolis of 1900. The metropolis of 1900 is that described by Sylvester Baxter, *Greater Boston; A Study for a Federated Metropolis* (Boston, 1891). See Table 1 for population distribution.

Expansion of Boston from 1850 - 1900 (Warner, 1962)

The early growth of Boston's suburbs is chronicled by Sam Bass Warner, in his pioneering book *Streetcar Suburbs*. Constrained by both geography and limits in transportation technology, most Boston residents relied on walking for their means of travel, resulting in a very compact city by the mid-1800s. At that time, the city's wealthy were making second homes on the outskirts, in the form of idealistic rural estates. The rise of the horse railroad, from 1852-1887, opened up some outlying areas to expansion, pushing the boundary of the city from a radius of about two miles to four miles. But it was really the electrification of streetcars in the late 1880s and 1890s that fueled the first

boom of suburban building, leading to what Warner calls the “new suburbs” that had exploded by the turn of the century (1962).

The Metropolitan Area Planning Council (MAPC) is an advisory regional planning body that focuses on regional planning in Eastern Massachusetts. I will discuss their role in TOD in the section below, but they have developed a community type classification system that is very helpful in understanding Boston’s suburbs today. They classify Massachusetts’ towns into five basic community types (see map below):

- Inner Core (includes Streetcar Suburbs)
- Regional Urban Centers
- Maturing Suburbs
- Developing Suburbs
- Rural Towns (MAPC, 2008)

MAPC’s Mapping of Community Types (MAPC, 2008)

For the purposes of this thesis, I have chosen to focus on the spectrum of suburbs ranging from the outer Streetcar Suburbs to the Maturing Suburbs as being particularly suitable for compact, mixed-use TOD. These are towns that are outside the inner core of Boston and approximately

bounded by Route 128. They have a suburban feel, with lots of single-family homes and green space, and most have downtowns or villages that contain commercial use. Many, though not all, are served by transit, convenient mostly for commuting into the city. Cars tend to be the dominant mode of transportation (MAPC, 2009, p. 10).

The planning literature has sought to both define and describe these "inner-ring," or "first" suburbs. A 2006 Brookings Institution report describes them as "neither fully urban nor completely suburban," and "generally defined as those places that developed first after their center city, before or during the rapid suburban expansion right after World War II, and before the newly developing suburbs of today" (Puentes and Warren, p. 1). They are close to city centers, have established populations and contain many parcels with aging or outdated uses. They are largely built out, but their desirable locations make them ideal for higher density, more urban infill redevelopment, including TOD.

State Institutions and Programs

Many government agencies, institutions and other local players have a stake in the creation of TOD. While not inclusive of every interested organization, policy or planning effort, the following highlight the major players and programs involved in the creation of TOD in the Boston area.

MBTA

Boston is home to the country's earliest subway system, pioneered by the Tremont Street subway in 1897 (today, part of the Green Line). The transit was initially privately owned and operated, and as the city grew so did its system of subways, elevated railways and buses. By the mid 1940s, the rise in car ownership was threatening the viability of the private system, and the MTA (Metropolitan Transit Authority) was created to purchase, consolidate and operate the transit system. The MTA was succeeded by the MBTA (Massachusetts Bay Transportation Authority) in the mid 1960s. The commuter rail lines were also originally private, but the MBTA has accumulated right-of-ways and use agreements to run commuter rail service. Anyone who has been stuck on a commuter rail train, waiting for a freight train to pass, is acutely aware of the complexities of these agreements.

Today the MBTA is the fourth largest transit network in the country (Flint, 2005), and operates subways, buses, commuter rail trains and ferries serving the eastern third of Massachusetts. It is an impressive network with 130 commuter rail stations, 141 transit stations, 31 miles of active subway tunnels, three ferry routes and more than 43,000 paid parking spaces (MBTA).

MBTA Subway, Commuter Rail and Ferry Map (SMSC)

Transit Realty Associates (TRA) is a third party consultant to the MBTA , charged with managing the agency's real estate assets. This is no small task, since the MBTA is the second largest landowner in Massachusetts. The MBTA is currently facing a debt of about $8 billion, and is looking to this stock of land to help generate additional revenue. TRA works to maximize the value of the land, identifying locations with good development potential, working with towns on feasibility studies and RFPs, and negotiating the ground leases that ultimately deliver revenue to the agency. The MBTA must weigh these potential revenue streams against political considerations, ridership goals and regional transportation planning (Sullivan, 2010). Within the last 5 years, the MBTA has sold or leased land for 54 development projects (MBTA).

MAPC

Among its other work, the Metropolitan Area Planning Council (MAPC) is instrumental in advocating for and supporting smart growth efforts across the state, including TOD projects. Their recently published plan for the Boston metropolitan region, MetroFuture, includes specific goals relevant to suburban TOD. The plan makes projections of and recommendations for growth from the present to 2030. Within the plan's "Sustainable Growth Patterns" goals, it is recommended that Maturing Suburbs look to preserve their existing open space by focusing

compact development on previously developed commercial and industrial land. They also recommend that most homes and job centers be built near transit. This would provide more transportation options for households and support increased ridership, leading in turn to better quality transit. Finally, the plan suggests that "where the opportunities present themselves, large scale reuse of industrial, commercial, or surplus public land would create a mix of housing, shops, and employment in new villages that take their cues from traditional New England Town Centers" (MAPC, 2010). This is a model promoted by the three case studies this thesis examines. To help towns implement smart growth planning, MAPC offers district, local and technical assistance, funded by the state. This assistance includes scenario planning, alternative zoning language, technical review and fiscal impact analysis, and provides a way for small towns to add to their planning capacity (Reardon, 2010).

State Smart Growth/Smart Energy Program

The state has taken a role in promoting and supporting smart growth development with its Smart Growth/Smart Energy Program. This initiative is led by the Development Cabinet, which was created in 2007 under the Patrick Administration. The Development Cabinet brings together Secretaries from several agencies that all have an interest in promoting smart growth: Administration and Finance, Energy and Environmental Affairs, Housing and Economic Development, Labor and Workforce Development and Transportation and Public Works. Although the program has many components, I will highlight those that apply most directly to the creation of TOD.

First is Commonwealth Capital, established by the Smart Growth/Smart Energy predecessor organization, the Executive Office of Commonwealth Development. This program combines many smaller discretionary grant programs, and creates a financial resource for towns. In exchange for investment from Commonwealth Capital, communities must produce growth plans and zoning reforms, which are competitively scored and evaluated (Foy, 2010).

State money is also available under the 40R and 40S laws, which incentivize the creation of code and"smart growth districts." Towns that create smart growth overlay districts in their zoning are provided with direct cash payments (Verrilli and Raitt, 2009). 40S provides money to towns to help offset additional school costs generated by development in the smart growth overlay districts (Smart Growth Toolkit). Additionally, the TOD bond program was created in

2004 and is administered by the Executive Office of Transportation. It provides financing for pedestrian improvements, housing and parking located within ¼ mile of a transit station. In 2004, the state Legislature earmarked $30 million for transit-oriented development projects. By 2009, $13 million of the $30 million had been awarded (Hillman, 2009).

The state's Smart Growth/Smart Energy program also funds and provides technical assistance to towns working on smart growth projects, in conjunction with MAPC. The program has created model zoning bylaws, which can help to set the stage for compact growth and TOD. Finally, the program administers a Smart Growth Awards program, of which the Station Landing project (one of the case studies examined in this thesis) is a recipient.

Creating TOD in Boston's Suburbs

I will argue that the Boston area is a good candidate for TOD, although it does present unique challenges. Boston's suburbs have both a strong existing transit network and a good market for TOD. The interest in and advocacy for smart growth at the state level encourages compact infill projects to counteract the region's problems with sprawl. Most towns within commuting distance to Boston are largely built-out, with defunct industrial sites some of the only places available for new development. Housing and land values are strong, supporting higher costs of construction. However, prospective TOD developers face some hurdles unique to working in Massachusetts, such as high construction costs and increased difficulty securing entitlements.

As journalist Anthony Flint points out, Massachusetts has a reputation for being without suburban sprawl, but this is not necessarily true. Expansion and development outside of the cities has been driven both by affluence and by affordability. The inner suburbs command high prices, and others must "drive to qualify," pushing the edge of development further out. Additionally, land consumption outpaced population growth by a factor of five during the first half of the 2000s (Flint, 2006). While Massachusetts benefits from its historically more urban villages and downtowns, its suburbs experience some of the same issues as the rest of the country: traffic congestion, long commutes by car and loss of open space.

Boston's metropolitan area, including the suburbs, has one big component that supports TOD: an extensive, existing transit network. The big, upfront investment has already been made. A

2004 report authored by the Center for Transit-Oriented Development found that demand for housing near transit will be greatest in five regions that have the most extensive existing transit systems: New York, Chicago, the San Francisco Bay Area, Philadelphia and Boston. Although certainly the quality of MBTA service could be improved, the Boston metro enjoys the clear benefit of existing transit.

The market is a critical factor in assessing the feasibility of TOD. A 2006 report by the Boston District Council of the ULI found that demand for transit access is a growing trend in the Boston area. Households are reconsidering the "housing-transportation cost trade-off," and looking to live closer to employment centers. Area demographic trends, including projected growth and the aging of the state's current population, "are driving demand for housing in walkable, mixed-use communities near transit and generating a growing number of such 'transit-oriented development' projects throughout the region" (Pollack, 2006).

Chapter 4 discussed the ways in which the entitlement process can be a barrier to creating TOD. The process varies from state to state, and town to town, but some trends are observable. A 2004 study that surveyed developers across the country found that, in the Northeast, regulation presents the highest barrier to developing "alternative," compact, mixed-use suburban projects. 87.3% of the Northeast developers surveyed cited regulation as a significant barrier, while financing scored only 34.9% and insufficient market interest was even lower, at 14.3% Ranking close to regulation, at 65.1%, was neighborhood opposition. Both regulation and neighborhood opposition are critical pieces of the entitlement process, so it is clear that entitlements are a large hurdle in this part of the country. No other part of the country had scores as high as the Northeast in both categories (Levine and Inam, 2004, p. 418).

Massachusetts in particular is known for its "home rule" culture, in which great deference is given to each municipality. While some Boston-area municipalities, such as Concord, Canton and Beverly, have been proactively pursuing TOD through rezoning and issuing RFPs for redevelopment sites near their stations, others have firmly rejected TOD. In the early 2000s, "transit villages" were rejected by Kingston, Holbrook and Malden. In many other towns, the number of 2 and 3 bedroom units within TODs have been limited, as towns seek to reduce the impact on schools. (Flint, 2005). Clearly, TOD is not right for or desired by every town.

Finally, the costs of building TOD in Massachusetts are high. Construction costs in the Northeast are significantly higher than in many other parts of the country. Most TOD projects are already more expensive to build than traditional product types, due to their complexity, and increased construction costs create a higher barrier to entry. Acquiring a parcel large enough for TOD can be expensive, and many sites targeted for TOD are on former industrial land, which often comes with daunting environmental issues (Hillman, 2009).

Chapter 6: Methodology

I am interested in moving TOD forward. Although many aspects come together to determine a project's feasibility, I believe that the entitlement phase is an especially critical component. It's the place where the municipality and developer sides meet; where the rubber hits the road. Learning about entitlements helps us learn about the overall feasibility of TOD. Finding ways to make the process a less onerous barrier will help to advance the creation of TOD.

Entitlement risk can be a significant deterrent to prospective developers of TOD, even in municipalities that are proactively modifying their zoning and have an interest in TOD. For many municipalities, TOD is a departure from what they've done before, and it's a new model which the municipality will not only have to live with in the long term, but which will set precedents for other developments in the future. They can substantially change a place's character, and planners are right to tread carefully. Likewise, the risks that come with entitling TOD projects cause many developers to be extremely cautious when venturing into this product type.

At heart, the entitlement process is a negotiation between the municipality (the planners, town leaders, and the public) and the developer, to strike a "deal" that's acceptable to both sides. The municipality is weighing tradeoffs, between increased traffic and needed tax revenue, for example. The developer is weighing optimal land use and density for financial returns and assessing the market. The "deal" describes the resolution that's acceptable to everyone, and is recorded in the entitlements and the conditions under which they are granted: zoning, permitting, development agreements and so on.

This thesis focuses on the creation of TOD projects in Boston's suburbs. For large TOD projects in Boston's suburbs that have made it through the entitlement process, what were the most pivotal and consequential issues? These could be major sticking points, or conversely, essential ingredients that helped the project move forward. How were the sticking points resolved?

To answer this research question, this thesis will look in depth at three TOD projects in Boston's suburbs. The three case studies represent a sample of the many TOD projects in the Boston area, and were chosen based on the selection criteria described below. Using these three

cases, I will test my initial suppositions and search for other key issues in the entitlement process. Among the cases, I will look for common and diverging elements, on both the pivotal issues and their resolution. I hope to uncover and propose strategies that are helpful to both municipalities and developers that are looking to make TOD projects happen.

The three TOD projects this thesis will examine are:

1. Station Landing in Medford
2. Hingham Shipyard and the Launch in Hingham
3. Westwood Station in Westwood

Three Case Study Locations (Base map from MAPC, edited by author)

The three cases were chosen with the following selection criteria in mind. To begin, this thesis focuses on the suburbs. As discussed in Chapter 2, the suburbs cover a wide spectrum of the built environment. To define suburban for this thesis, I described a set of factors.

- Secondary relationship to major city (Boston)
- Predominantly single-use zoning
- Mostly single-family homes
- Low density
- The car is the primary mode of transportation

These criteria are still fairly broad, and could be used to describe towns from Arlington to Stow. To further narrow the geography, I limited the case studies to projects in established, built-up towns, with a boundary of approximately the Route 128 belt. These are the "inner-ring," "first," or "maturing" suburbs I described in Chapter 5. While there are models for TOD in all kinds of suburbs, I am most interested in infill redevelopment. The inner-ting suburbs are the best candidates for higher density, infill "retrofits," given their desirable location, stock of outdated industrial land and access to existing transit.

Next, as indicated in Chapter 5, there are some municipalities that simply don't want TOD – or any large-scale redevelopment. I chose locations where there was political support for TOD and mixed-use development from the town. However, as the thesis focuses on the entitlement process, I wanted to select cases that would have complexity in their entitlements. For this reason, I selected larger projects with a mix of uses. All cases must have completed their entitlement phase, and I would have preferred that all be built, but Westwood Station (unbuilt) was just too interesting to pass up.

Finally, the project had to be within walking distance to MBTA transit. The three cases represent diversity among transit modes, with the subway (Station Landing), the commuter rail (Westwood Station) and the commuter ferry (Hingham Shipyard.) It could be argued that the relationship to transit is debatable, especially in the Hingham case. The commuter boat is used by hundreds of people a day, but it's tough to argue that the majority of people living and working at the Hingham Shipyard commute by boat, or use the boat for substantial transit needs. While having strong transit is preferable, I believe and will argue that transit can also serve as an armature for compact, mixed-use infill development in the suburbs. Even if most drive to this type of infill development, it creates a walkable neighborhood and a needed alternative to conventional suburban development.

For each case, in addition to basic background information, there are several points that this thesis will investigate. First, I describe the regulatory context of the project. This includes the zoning in place on the site prior to the project, and the steps, if any, the municipality or other state agencies have taken to encourage TOD. This would include actions such as redevelopment studies, changes in zoning, adoption of 40R zoning and issuing RFQs. It is also important to understand the municipality's organization and entitlement structure. Each case went through a slightly different review process, stipulated by the municipality's bylaws and ordinances. Additionally, there is a great deal of variation between the roles played by the different regulatory and governing bodies within the municipality. In some cases, the Board of Selectmen is quite powerful, while in others the Mayor is pivotal. In each case, how much discretionary power is granted to the Planning Board, and to the Zoning Board of Appeals? What types of proposals need to go before a town meeting? How involved were the planners, and what was the role of the consultants?

The key question to ask in each case is, What were the most pivotal issues or ingredients during the entitlement phase? By pivotal I mean factors that either greatly helped the project move forward, or created major obstacles or sticking points. In the case of critical sticking points, I will look to see how the issues were resolved. Often the resolution is some form of compromise, and may be recorded in the language of the zoning, the final permit or, where applicable, a development agreement.

This thesis examines the TOD entitlement process from its two major "sides:" the developer pursuing land entitlements to build the TOD and the municipality, which must decide which entitlements to grant. This is a qualitative thesis, and as such, a large source of primary information lies in interviews I conducted with the key players and people involved in each project. In each case, I spoke with a project manager from the developer's office, the person in charge of facilitating the entitlement process within the municipality, and the urban designers. I also interviewed select additional consultants and planning board members. Another important source of information is found in public records: regulatory ordinances and decisions, special permits, fiscal impact analyses and development agreements. Although there are no previous, in-depth case studies for any of the selected projects, each was high-profile within its community and within the region. Fortunately, there is a great deal of newspaper reporting and other published accounts to draw on as I uncover the stories behind each case.

I will present each case study in three parts. I will begin by describing the basics of the development: size, uses, estimated cost and current status. Then I will discuss the municipality's characteristics and regulatory context. This will layout the permitting process and key players and boards. The third part will tell the story of the project throughout the entitlement process. The intent is to draw out factors that were either advantageous or obstacles. The third section concludes by asking the question, Is it TOD?

Chapter 7: Case Study: Station Landing, Medford

Project Basics

Station Landing is a 16-acre, mixed-use development in the city of Medford. The site is located along the Mystic River and adjacent to the Wellington subway station. Station Landing is directly connected to the subway station via a pedestrian bridge. Along the river is a large public park, and the other two sides of the site are hemmed in by state Routes 28 and 16. This is one of the busiest intersections in Massachusetts (Tye, 2010).

The uses consist of 100,000 square feet of retail at street level, 165,000 sf of office, 650 residential units (a mix of for rent and for sale), a gym and a 1900-car garage. As of this writing, the project is largely built out. One open site remains, which was originally planned for a 190-room hotel. There is also talk of adding a liner of single-loaded residential or hotel along the parking garage.

Station Landing Context (Google Earth, edited by author)

Station Landing Site Plan (National Development)

The City and its Regulatory Context

First settled in 1630 and incorporated as a city in 1892, Medford is a large, historic, working- and middle-class city. In the spectrum of urban to rural in which suburbs lie, Medford is the closest to Boston and the most urban of the three case studies. Some might debate whether Medford is a suburb at all, and I acknowledge that it has urban characteristics. However, I would argue that while it is technically a city, it meets the criteria for suburbs I laid out earlier in the thesis: a secondary relationship to the primary city, reliance on cars and single use zoning with a heavy emphasis on residential. But perhaps the best argument is that one of the greatest challenges of the project laid in convincing retailers to depart from their suburban models to come to Station Landing.

According to the American Community Survey's 2008 estimates, Medford has a total population of 55,856, with a median household income of $66,766 (just over the Massachusetts median of $64,684). Of its residents, 60.6% are homeowners, with a median home price of $407,700. Educational attainment is another indicator of a strong market, and just 38.8% of Medford residents hold a bachelor's degree or higher (ACS, 2008(2)). The city is projected to grow only slightly over the coming decades. MetroFuture's analysis of population growth following current trends predicts 4% growth in Medford's population between 2010 and 2030 (MetroFuture, 2007).

Medford has a city form of government, with a seven-member, elected City Council. The city is led by Mayor McGlynn, a very influential person in the city. The city's Office of Community Development supports the Community Development Board, whose role is to administer development projects and provide site plan review for projects not requiring a variance or special permit. Although there are many other review bodies and city boards who were involved with the development of Station Landing, I will focus on the three primary contingents: Mayor McGlynn, City Council and the Community Development Board.

Station Landing was built in a Mixed-Use Zone (MUZ), but as we shall see, zoning changes were required to make the project a reality. To effect a zoning change in Medford, first public hearings are held by the Community Development (CD) Board. The CD Board then votes on whether or not to recommend the proposed change, and offers its comments. City Council then votes on whether to pass the zoning change. If passed, the Mayor signs the change into law.

The zoning ordinance spells out the process for working within an MUZ. Some uses require a Special Permit, and in that case, the City Council is the permit granting authority. In all cases, the CD Board conducts a Site Plan Review. The CD Board votes on whether to approve the site plan, and what conditions must be met (City of Medford, 2010). While the Mayor doesn't have direct involvement with MUZ permits, he does have a great deal of political influence among the Boards. Notably, the city also established linkage fees in 1989, for projects larger than 10,000 sf or greater than six units (Medaglia, 2004). Linkage fees are written into the city's laws, and create predictability in determining mitigation money.

The Story of Station Landing

1. From Industrial to Mixed-Use

The site of Station Landing had been on the city's radar screen for decades before redevelopment came to fruition. Former industrial land, the site was contaminated by years of dumping and filling. In the 1960s, some strip retail was built, including a flower ship and a pancake house, but the site languished. In the 1970s, the city of Medford designated the site for urban renewal. The site was made up of approximately 16 parcels, controlled by as many

separate owners. Medford began the process of acquiring the land through eminent domain, and working with Forest City as the preferred developer (DiLorenzo, 2010).

Station Landing Timeline

Year	Event
	Industrial dumping and filling
1960s	Some retail built
1970s	Medford designates site for urban renewal
1986	CC&F assembles site, begins working with city
1987	Planned development overlay (PDA) approved
1988	Mixed-Use Zone (MUZ) approved by CD Board and City Council
	Comprehensive site plan review enacted
1989	First office building built
1996	Parking garage built
2003	National Development buys foreclosed property
2004	Rezoning approved by CD Board and City Council
2006	Station Landing: Phase 1 complete
2007	Phases 2 and 3 complete
2008	Phase 4 complete
2009	Phase 5 complete

Lauren DiLorenzo, Director of the Office of Community Development in Medford, has been involved with the project since the 1980s. She shared the site's history with me. Eminent domain had not progressed very far when developer Cabot Cabot and Forbes (CC&F) began acquiring parcels in the private market. By the 1980s, CC&F had made significant headway in assembling land. In 1986, they approached the city's leaders, and convinced the city to work with them to develop zoning for redevelopment. Rather than pursue the more complicated eminent domain process with Forest City, Medford chose to work with CC&F to rezone the site for private redevelopment (Di Lorenzo, 2010).

Given the market in the mid-1980s, CC&F's vision for the site was for a mix of uses, heavily weighted towards office and retail. The proposed development was called Mystic Center. In

1987, under Mayor Porreca, the City Council voted to change the zoning to include a Planned Development Area Overlay (PDA) with mixed uses for the site (DiLorenzo, 2010). This gave the City Council broad discretion in approving and controlling development. They, rather than the Zoning Board of Appeals (ZBA), would serve as the Special permit granting authority within PDAs (City of Medford, 1987).

However, in a ballot initiative which followed later in 1987, the PDA was overridden. In the same election, Mayor Porreca was voted out, and replaced with Mayor McGlynn (DiLorenzo, 2010). McGlynn has been mayor from 1988 to the present. Political shake-ups aside, the site remained a high priority for redevelopment. In December of 1987, CC&F provided the City Council with an updated site plan and petitioned them to adopt a Mixed-Use Zone (MUZ) for the site. The MUZ would allow office, retail, hotel and some light industrial uses as-of-right. Interestingly, residential uses were not allowed within the proposed MUZ (CC&F, 1987).

Following two public hearings in January of 1988, the CD Board voted unanimously to recommend the creation of an MUZ at the site. The greatest concerns were around traffic issues (DiLorenzo Popp, 1988). The intersection of Routes 28 and 16, a large rotary called Wellington Circle, was even then known for traffic jams. Just a few weeks later, in February of 1988, the City Council also voted unanimously to create the MUZ. This paved the way for Mystic Center to begin construction. As planned, the development would include all as-of-right uses: a hotel, offices, entertainment and light industrial. In exchange for the rezoning, CC&F committed to building 30 units of affordable housing off-site, and to providing $4 million in mitigation money for public benefits and environmental and traffic mitigation measures (Gornstein, 1988).

Mystic Center Site Plan (City of Medford)

Although it did not affect Mystic Center, the City Council voted to adopt an ordinance requiring comprehensive site plan review for large projects in June of 1988. The CD Board would typically serve as the site plan review committee. However, in cases where Special Permits or variances were required, the City Council or Board of Appeals would perform the site plan review (Jordan, 1988). This is worth noting, as it laid the groundwork for subsequent development proposals.

By 1989, a single 160,000 sf office building was built, but then the economy shifted. The office market declined, and the site languished. CC&F paid Medford cash in lieu of constructing the 30 units of affordable housing (Medaglia, 2004). In 1996, a parking garage was built with Federal money (confirm), as part of a Consent Decree between the Big Dig and the MBTA. The garage was separated from the Wellington subway station by train tracks, so a monorail was built to connect the two. Spaces in the garage were leased back to Mass Highway and the MBTA (Tye, 2010). No other development followed, and ultimately CC&F were unable to execute their master plan for Mystic Center. The property was foreclosed upon.

Station Landing site prior to acquisition by National Development (Tye, 2010)

2. Wellington Circle Reborn: Station Landing

In late 2002, Ted Tye of National Development began working with urban designers Elkus/Manfredi to come up with ideas for the site. The team arrived at the idea of a New Urbanist, mixed-use development anchored by a main street. The proximity to the subway station was an added boon, especially for residential uses. In January of 2003, Tye went to the city to discuss zoning changes to the MUZ. National's proposal would require a shift from the "suburban office" nature of the old Mystic Center to a more urban approach, with higher allowable densities, smaller setbacks and more emphasis on the pedestrian. National's proposal also entailed a large amount of residential, which was not allowed under the MUZ. Knowing that Medford was eager to see the site developed, National took the risk and bought the distressed property for $35 million in 2003, prior to rezoning (Diesenhouse, 2004).

National had worked with Elkus/Manfredi to produce a complete visual animation of the project, allowing people to get a real sense of what would be built. According to Tye, this was an incredible asset, as it helped city officials as well as the public see what a million square feet of development would actually look like (Tye, 2010). Medford definitely wanted development on the site, but the city also wanted to ensure the quality of what would be built, says Station Landing's urban designer John Martin. There were discussions and negotiations with the Community Development Board over urban design standards such as street widths and building materials, as the town sought to ensure that the final product would reflect what they had seen in the animation. Another key to successful negotiations was that National committed early on to which uses would go in which locations (Martin, 2010).

Since the site was the only MUZ in the city, the zoning change could be accomplished with a text amendment. National took the lead in re-writing the zoning, working closely with DiLorenzo. Residential uses were added, density increased, setbacks reduced and hardscape was counted towards open space, giving the designers greater flexibility in designing the pedestrian spaces (Tye, 2010). Although there was some controversy, parking ratios were relaxed - from 2.1 spaces per residential unit to 1.5 - and shared parking was allowed as-of-right (DiLorenzo, 2010). This would prove to be a great advantage.

Traffic at the infamous Wellington Circle continued to be an issue. In fact, one of National's first steps was to re-brand the project as Station Landing, emphasizing the orientation towards the subway rather than Wellington Circle, which carried bad associations (Tye, 2010). However, Routes 28 and 16 are state roads, and the traffic is largely the result of regional demands rather than local uses (DiLorenzo, 2010). Station Landing itself presented only a minimal uptick in overall traffic (Martin, 2010).

The City Council approved the rezoning in June of 2004, in a record five months. It was, says Martin, "a kind of a perfect alignment of stars" (Martin, 2010). As DiLorenzo told the *Boston Business Journal* at the time, "The city is very happy and supportive of this project and have been waiting for a long time for this area to be redeveloped" (Hillman, 2004). Said Tye, "I don't think [there's been] a more cooperative venture between the city and a private developer" (Pikounis, 2004). The master plan for the site called for 650 residential units, 100,000 sf of retail, the existing 165,000 sf of office and an expansion of the parking garage

(Tye, 2004). It was budgeted at $500 million, and projected to be built-out in phases within five to seven years.

Station Landing Approved Plan (Elkus/Manfredi)

What helped the project gain approval so quickly? Both Martin and Tye credit the political will within the city with helping to move Station Landing forward. The city was anxious to see redevelopment of the distressed site, both to energize a declining site and generate tax dollars for the city. Tye spoke of the importance of Mayor McGlynn's support, and thought that the design animation was instrumental in helping people to understand the project and getting people on board. Martin noted that Medford is a forward-thinking city that *wanted* to see New Urbanist design (Martin, 2010 and Tye, 2010).

3. Phased Built-out

Under the amended Mixed-Use Zone, each phase would need to go through site plan review by the CD Board. However, there had been a great deal of coordination during the rezoning effort, and the CD Board was able to quickly grant site plan approval for the first phase of Station Landing. The first phase consisted of two buildings with 292 apartments and 65,000 sf of ground floor retail and restaurant. It was important to Tye to get a critical mass of users and amenities on the site in the first phase, creating a strong place identity (Tye, 2010). The two

buildings, called Arborpoint at Station Landing, face Route 16 and create a "front door" for the site. In November of 2004 ground was broken, and the construction of Station Landing was underway. Arborpoint opened in 2006, and won a state Smart Growth award that same year.

Phase I
Arborpoint at Station Landing
292 Apartment Units
65,000 s.f. Retail/Restaurant
233 Surface Parking Spaces
413 Below-Grade Parking Spaces
Opened June 2006

Phase V
75SL
168 Apartment Units
8500 s.f. Restaurant
58 Surface Parking Spaces
Opened July 2009

Phase VI
Future Development Area

The Offices at Station Landing
160,000 s.f. Office
Opened 1988

Phase III
Boston Sports Club
50,000 s.f. Fitness
Opened November 2007

Phase IV
Station Landing Transportation Center
1,900 Space Garage
Skywalk to MBTA
Expanded in 2008

Phase II
Skyline at Station Landing
127 Condominium Units
204 Structured Parking Spaces
Opened June 2007

Station Landing
Medford, Massachusetts

Station Landing Phasing (Tye, 2010)

In the negotiations for many large, mixed-use projects, mitigation money and impact fees can become a contentious negotiation point. Unlike many cities and towns, Medford has the benefit of established linkage fees. Linkage fees would be set and paid for each individual phase of Station Landing. For the first phase, linkage fees totaled approximately $1.4 million (Medaglia, 2004). These fees are designed to offset impacts on public infrastructure and city services, and are calculated in a clear, per unit or per square foot basis (Linkage Agreement, 2004).

The environmental contamination on the site was significant, and the environmental remediation for the first phase cost about $7 million (Diesenhouse, 2005). However, National made the best of the costly remediation: the soil excavation formed the space for the required underground parking (Tye, 2010). The MUZ permit had lower parking ratios than typical suburban

developments, with 1.5 spaces per unit for residential. This allowed all of the structured parking to fit on a single floor under the buildings, lowering costs and increasing the financial feasibility of the project. Once occupied, the parking utilization was found to be closer to one space per unit. In subsequent phases, this discovery allowed the development team to decrease the required parking further (Martin, 2010).

Perhaps the project's largest challenges came with securing retail tenants. Many were used to being in suburban strips and power centers, and Station Landings' Main Street was a new model. In the suburbs, having visible parking in front of the store is important. Although most of the parking is tucked behind the buildings, the mandated setbacks from state highways left room for a strip of parking that is visible from the main roads. This was helpful in securing potential tenants for the project (Martin, 2010). Tye also talked about the difficulties of getting retailers out of the more conventional suburban model, using Walgreen's as an example. Tye really wanted convenience retail for the residents of Station Landing, including a drug store. However, Walgreen's insisted on having a drive-through, which is anathema to many advocates of New Urbanism. Tye and Davis came up with a clever design solution, building the drive-in through the building so that it would not compromise the main pedestrian spaces. Tye also worked hard to get the right mix of retailers, including restaurants, which would support and compliment the project's other uses (Tye, 2010).

The project moved ahead quickly, by and large sticking to the approved master plan. Phase two consisted of 127 for-sale condos at the edge of Mystic River. Called Skyline at Station Landing, the building opened in 2007, just a year after Arborpoint. The high-end condo market was beginning to experience difficulties across the region, and to help jump-start the building's sales, National took the unusual step of sponsoring an auction. They reduced 17 units by 25% and auctioned them all in one day. This move helped to generate interest in the project, and increase occupancy (Hillman, 2007).

In the same year, Phase three, a 50,000 sf Boston Sports Club, opened. In phase four, the parking garage was expanded to accommodate the needs of the gym, and extra spaces were included to support future development phases. The connection to Wellington Station was proving to be a critical amenity for Station Landing, but the monorail was having problems. It broke down regularly, stranding passengers, and a survey conducted by National found a

whopping 97% customer dissatisfaction. In 2008, National replaced the monorail with an enclosed walkway (Tye, 2010).

Phase five opened in 2009, and consists of 168 apartments and 85,000 sf of restaurant space. The apartments are called 75SL, and achieved a gold LEED rating. Since the first phase had lower than expected actual parking usage, Medford allowed National to build 75SL with a lower parking ratio of one space per unit. They were also able to assign some of the required spaces to the garage, further lowering construction costs. Limits on parking have not proven to be to be a leasing problem: 75SL was about two-thirds leased within the first few months (Tye, 2010).

As early as 2006, Medford had been working to secure promised state money to make major traffic improvements at Wellington Circle. Under Governor Romney, the state had promised to provide aid for infrastructure improvements to communities that promote smart growth development (Heaney, S., Beecher, M. at al, 2006). The interchange is still awaiting improvements.

As of this writing, the final phases are to be determined. There is one large site left, and the original master plan called for a hotel. However, Tye acknowledges that in the current economy, nothing is carved in stone and the use is still undetermined (Tye, 2010). Martin mentioned the possibility of adding construction along the parking garage, "lining" the garage and creating a more vibrant street front, as well as adding some additional square footage to the project. Uses discussed in the past have been townhomes or a hotel with a single-loaded corridor (Martin, 2010). The last pieces of Station Landing remain to be seen.

Station Landing's main street (photos by author)

4. Is it TOD?

Of the three case studies in this thesis, I think Station Landing is the strongest TOD. I agree with developer Ted Tye, that the quality of the transit is one of the biggest factors in making good TOD (Tye, 2010). Station Landing is extremely well-positioned next to busy Wellington Station. In 2008, average daily ridership at Wellington was just over 4000 people (MAPC). Wellington Station is certainly a regional commuting draw, but it's also a critical amenity to those living at Station Landing. In a recent survey of residents done by National, 57% said that MBTA access was *the most important* reason for moving to Station landing (Tye, 2010). Assuming that this housing preference translates to actual transit usage, it's clear to that Station landing is working as a true TOD.

In addition to the strength of the transit, the development is walkable, with human-scaled streets and comfortable sidewalks. The use mix was carefully planned, with many convenience uses for residents. The office building brings a complimentary use, activating the shops, restaurants and streets during weekdays. The concentration of restaurants at Station Landing creates a larger draw, bringing people into the development. The only downside is that Station Landing is limited in size and hemmed in by large roads, tracks and the river, making it essentially impossible to walk to and from the project. In this sense, Station Landing functions like a neighborhood enclave with a great relationship to transit, but separate from surrounding areas. However, given the existing context around Station Landing of large-scale retail and state highways, this is minor criticism, and Station Landing is an excellent example of suburban TOD.

Chapter 8: Hingham Shipyard, Hingham

Project Basics

The Hingham Shipyard is a 130-acre, 1.2 million square feet mixed-use redevelopment in the town of Hingham, MA (Preer, 2009). Of the 130 acres, 29 are underwater, reducing the usable site to just over 100 acres. The transit connection consists of an MBTA Commuter Boat, which currently ferries about 1,135 people per day to Rowes Wharf in downtown Boston. The site is on the edge of town, between a commercial strip along the regional highway, Route 3A, a single-family residential neighborhood and the waterfront with marinas. The uses consist of 479 units of housing, 30,000 square feet of office space, 210,000 square feet of ground-floor retail space, a marina, an MBTA ferry terminal and parking. The housing breaks out to 235 rental apartments, 150 for-sale townhouses on the water and 94 for-sale condos in the mixed-use portion of the project. As of this writing, the bulk of the project is built, although some of the townhouses and condos remain under construction.

Hingham Shipyard Context (Google Earth, edited by author)

HINGHAM★SHIPYARD

MBTA Ferry

MBTA Parking

Hingham Shipyard site plan (Hingham Shipyard Marinas)

While this thesis discusses the entirety of the Hingham Shipyard redevelopment as background, it focuses on the mixed-use portion, known as “The Launch at Hingham Shipyard.” It is a 27.5 acre portion of the site, and consists of the 210,000 sf of ground-floor retail, 94 for-sale residential condos and 30,000 sf of office space outlined above. In 2007, it was budgeted at $62.5 million (Commercial Real Estate, 2007). The project also includes a substantial public waterfront park and associated parking for all uses.

The Town and its Regulatory Context

Incorporated in 1635, Hingham is a beautiful and wealthy ocean-side town, with significant history and a large concentration of historic buildings. For developers, it is a desirable location and market, but with high barriers to entry. There is a strong emphasis on aesthetic character and quality of life, and a high level of involvement from the town in any new development (Cohen, 2010).

The Launch Site Plan (Hingham Launch)

According to the American Community Survey's 2008 estimates, Hingham has a total population of 21,255, with a median household income of $112,660 (almost twice the Massachusetts median of $64,684). Of its residents, 81.7% are homeowners, with a median home price of $667,800 (again, nearly double the home price in the state as a whole). Educational attainment is another indicator of a strong market, and 59.7% of Hingham residents hold a bachelor's degree or higher (ACS, 2008). The town is also projected to grow over the coming decades. MetroFuture's analysis of population growth following current trends predicts 14% growth in Hingham's population between 2010 and 2030 (MetroFuture, 2007).

The site of the Hingham Shipyard is just what its name suggests: a former shipyard. It gained fame during World War 2 for its prolific production of Navy destroyer escort ships, and after the war retained industrial and marina uses. The property was zoned Industrial, but in 1983, the zoning ordinance was amended to allow mixed-use development in Industrial sites by special permit (Lacy, 2010). According to longtime Planning Board member Dick Cook, who served from 1979-1994, discussion about the redevelopment of the shipyard began as far back as the 1970s, as the local economy shifted away from industrial. A committee was created to study redevelopment options for the shipyard, and revitalization plans led to the 1983 change in the zoning. The idea was to create opportunity for redevelopment, while retaining control through the special permit process (Cook, 2010).

Although numerous boards and agencies were involved in the Hingham Shipyard, I will describe only the major players within the town. First, like many Massachusetts towns, Hingham is governed by a Board of Selectmen. The town holds an Annual Town Meeting, at which changes to the zoning ordinance are voted on in a large public meeting. It requires a 2/3 majority of those present to pass a change to zoning. The Planning Board and the Zoning Board of Appeals (ZBA) are the two main groups that administer the entitlement process. Both groups have elected, volunteer members, with staff support from the town. Katy Lacy is Hingham's Community Planning Director, and was very involved with the Launch portion of the Shipyard. Over time, the relationship between the Planning Board and the ZBA has changed. In the case of the Shipyard, at the time of the initial site plan permitting, the Planning Board had only an advisory role, while the ZBA had voting power to grant the Special Permit. This was changed by the time the mixed-use Launch portion applied for its permits: while the ZBA retains special permit granting authority, the Planning Board's site review is binding, and their proposed conditions must be included in the Special Permit. In addition to these permanent groups, the town brings on consultants as needed to peer-review projects and provide specific expertise, at the developer's expense.

The zoning ordinance lays out the review process required for a mixed-use special permit in an industrial zone. The ZBA has the authority to grant a Special Permit for mixed-use in an Industrial zone, and the Planning Board performs a binding site plan review. The process begins with a pre-application conference with the Planning Board. The applicant then submits a Preliminary Plan of the site to the Planning Board and all other pertinent town boards (Board of Health, Sewer Commission, etc). The various town boards make comments and recommendations on the plan that are collected by the Planning Board, which then issues its own comments and recommendations to the applicant. A Final Plan is then submitted by the applicant, which is again reviewed by the various town boards. The Planning Board must approve the site plan (by a 4/5 vote), and submits its binding site plan conditions to the ZBA. The ZBA reviews the Final Plan and the Planning Board's conditions and holds a public meeting to discuss the plan. Approval of a Special Permit by the ZBA requires a 2/3 vote (Hingham, 2010).

Subsequent changes to the Special Permit fall under three categories, which are spelled out in the "Conditions and Limitations" section of the permit. Changes that do not involve more than a

5% increase in size, use, or building location are considered Consistent with Approved Project Plans. The ZBA reviews the proposed changes for consistency with the approved plan, and if the board finds the plan consistent, the change is approved.

With an increase of between 5 and 10% in size, use, or building location, a change falls under the Minor Amendment category. In such cases, the ZBA must approve the changes administratively at a public meeting, but a public hearing is not required.

A public hearing and approval from the ZBA is required for Major Modifications, which are triggered by: area or use increase of more than 10%, introduction of a new land use, reductions of areas dedicated to public use, or significant modifications to the architectural and landscape design. The ZBA determines whether a modification is minor or major (Town of Hingham Board of Appeals, 2003).

The Story of the Shipyard

Hingham Shipyard Timeline

Year	Event
1942	Bethlehem Steel Shipyard opens
1975	Commuter ferry begins service
1983	Zoning changed to mixed-use by special permit
1988	Bear Hill Investment Corp. submits mixed-use plan
1998	PB recommends Seachain's Preliminary Plan
1999	Weymouth files Back River lawsuit
2000	Bill filed for MBTA land swap PB recommends revised Preliminary Plan
2001	Land swap approved
2002	PB recommends Final Plan
2003	ZBA grants Special Permit
2006	Seachin sells project in 3 pieces, mixed-use portion to Samuels Construction begins on apartments
2007	PB approves Samuels' Site Plan
2008	ZBA approves modifications to Special Permit
2010	The Launch opens

1. Rezoning

The Hingham Shipyard, which was built in 1942 as the Bethlehem Steel Shipyard, was famous in World War 2 but had become an underutilized industrial zone by the early 1980s. Located along one of the primary roads into town, Route 3A, it was perceived by many in Hingham as a "major community eyesore" (Salemi, 1998). Alongside old industrial buildings and the large General Services Administration building, a marina sat on the water's edge along with a small ferry terminal for the MBTA's commuter boat. The commuter boat had begun service between Boston and Hingham in 1975, providing an alternative to commuting on the increasingly congested I-93. Adjacent to the terminal was a 13-acre, 1200-car parking lot owned by the MBTA.

Historic photo of Hingham Shipyard (Hingham Historical Society)

As described above, the site was zoned industrial, but the town was interested in encouraging other uses in the redevelopment of the area. According to Dick Cook, the town wanted to see the shipyard redeveloped, but had concerns about financial feasibility and possible environmental cleanup. This prompted the town to create a committee to study the redevelopment of the shipyard. Working with the primary owner of the property, the Planning Board created a revitalization plan (Cook, 2010).

In order to create the opportunity for greater flexibility and higher uses in future development of the site, Town Meeting voted in 1983 to change the zoning ordinance to allow mixed-use development in an industrial zone by special permit (Salemi, 1998). Interestingly, although in theory, any industrial site in town could apply for a mixed use Special Permit, the ordinance set a minimum lot size. In effect, this meant that the zoning change allowing mixed use by Special Permit applied only to the shipyard site. Hingham's zoning bylaw was reorganized in 1997, making some slight modification to this section (Lacy, 2010).

At the time of the 1983 rezoning, the shipyard was a collection of parcels under different ownership. By 1988, a developer named Bear Hill Investment Corporation had assembled a single 56-acre site and submitted a master plan for a mixed-use special permit. The proposed program was heavily office use, with 600,000 sf of office, 200 units of housing, an inn, restaurants and a marina (Realty Notes, 1998). The office market in the Boston area subsequently declined, however, and the plan was shelved.

2. SeaChain's Plan

For many years after the rezoning, the site remained largely dormant. However, by the mid-1990s there was renewed interest in redeveloping the shipyard. Between 1995 and 1997, a local developer (and operator of the on-site Hewitt's Cove Marina), Paul Trendowicz, assembled 130 acres, at a price of $16 million. Assembling this large parcel was a feat: aside from the 13 acres owned by the MBTA and Trendowicz's marina, two families controlled the remaining site area. Getting control of both parcels was critical in putting together a redevelopment plan with enough critical mass. According to Trendowicz, "When I first saw the property, I knew I had to buy both parcels if I were to do anything with it." (Salemi, 1998).

In late 1997, Trendowicz's Hingham-based development company, SeaChain LLC, submitted its Preliminary Plan to the Planning Board. The market had shifted in the previous decade, and the proposal was dominated by housing and retail rather than office. The uses proposed were 550 for-sale townhouses, an 80-room hotel, 246,000 sf of retail, 36,000 sf of office, a marina and a two-acre park. The site plan showed one change that would prove critical to the future of the project: the relocation and expansion of the MBTA's parking lot (Salemi, 1998).

In February of 1998, the Planning Board approved and recommended SeaChain's Preliminary Plan for the Shipyard. Along with reservations about traffic, parking and impacts on adjacent neighborhoods, the Planning Board's primary concern rested with the density and type of housing. Of the 550 housing units, 80 (or about 15%) were slated to be 3-bedroom units. The Board voiced concerns that a plan with that many 3-bedroom units, attractive to families with children, might put too great a burden on municipal services such as schools (McLaughlin, 1998).

The desirable waterfront location of the shipyard is an asset to the site, but became a burden during the entitlement process. The site is located at the mouth of the Back River, which separates Hingham from the neighboring town of Weymouth. In May of 1999, Hingham's Conservation Commission ruled that the 1500 feet of shoreline along the western edge of the Shipyard site was classified as ocean, not river. This was a critical decision, as any riverfront development had to comply with Massachusetts' River Protection Act. Two groups, the Back River Committee and the Town of Weymouth, appealed the decision to the state Department of Environmental Protection. The appeals contended that the body of water bordering the site was actually part of the Back River. There were concerns about setting a bad precedent for future riverfront development, and one Weymouth selectwoman expressed the opinion that "Hingham should have consulted with us before they made such a decision" (Reid, 1999).

These appeals posed a significant problem to the advancement of the Shipyard. Although not tied to the granting of a Special Permit, they had the potential to hold up the project during a lengthy court process. As a solution, the Hingham Conservation Commission agreed that the water was part of the Back River, but that the site was a "redevelopment area." Under the River Protection Act, building restrictions are less strict within a redevelopment area. With an acceptable compromise thus struck, SeaChain proceeded with their site planning (Cook, 2010).

The layout of the site plan depended on the relocation of the MBTA's parking lot, which necessitated a land swap. The site plan could not be finalized until the land swap was confirmed, and the Special Permit required a Final Plan. The problem was that the MBTA cannot determine for itself whether it agrees to a land swap. Rather, land swaps involving MBTA property require approval by the state legislature, which in turn requires filing a bill with the legislature. The MBTA began considering the land swap in 1999, but a bill was not filed until early 2000 (Reid, 2001).

With the land swap pending, SeaChain filed a revised Preliminary Plan with the Planning Board in September of 2000. Changes from the 1998 Preliminary Plan included the addition of rental units: out of 550 units of housing, 254 would be apartments. Of those apartments, 16 would be affordable. In response to the town's concern about the costs of additional school children, the revised plan projected that only 35 school-age children would live at the Shipyard. The office space about doubled, from 36,000 sf to 75,000 sf, and the retail portion included a supermarket,

gym and a daycare center, as well as several restaurants (Reid, 2000). The Planning Board approved the revised plan, with recommendations (Lacy, 2010). Recommended modifications to the plan addressed overall density, affordable housing, historic preservation, open space, parking and traffic (Reid, 2001).

As the bill for the land swap sat on Beacon Hill, neighborhood opposition to the project galvanized. A group called Residents for Responsible Shipyard Development argued that the project was too big. They hired Boston lobbying firm Brian S. Hickey Associates to represent them during state house hearings on the land swap (Reid, 2001). As the process dragged out in the legislature, SeaChain considered drastically changing the plan to avoid the land swap, eliminating much of the retail and office space. Scaling back the project would have a major impact on projected tax revenue for Hingham, reducing annual taxes from $1.8 million to $800,000. Hingham officials appealed to the leaders in the state Senate to approve the land swap (Shartin, 2001). To the relief of both SeaChain and the town of Hingham, the land swap was approved in December of 2001 (Shartin, 2001(2)).

With the land swap in place, and Planning Board comments on its Preliminary Plan, SeaChain proceeded to put together a Final Plan. The Final Plan was submitted to the Planning Board in August of 2002, and modifications included a reduction in the number of residential units to 479 and the deletion of the hotel. There was some skepticism about whether the town would see net fiscal benefits, so SeaChain hired Bonz Real Estate Advisors to prepare a fiscal impact analysis for the ZBA. Their 2002 report found that the proposed shipyard development would produce a $863,400 surplus for the town under the worst case scenario, and a $1,519,700 surplus under the likely case scenario (Bonz, 2002). In order to limit the number of additional school-age children (and the attendant cost of providing schools), the number of 3-bedroom units within the development was limited to 82.

The Hingham Shipyard benefits from its history: it creates a brand and gives authenticity and cachet to the development. But in spite of a desire to see the site redeveloped, people in the town also had strong interests in preserving a part of their history. Working with the town, SeaChain helped to organize the Hingham Shipyard Historical Foundation. The Foundation raised money for the creation of a 30-minute documentary film called “Remembering the

Hingham Shipyard" (Shartin, 2003). SeaChain also committed to building a small museum and preserving the site's historic gatehouse (Cohen, 2010).

Other discussion points included concerns about additional traffic generated by the project. This issue was resolved through a traffic mitigation program, outlined in the Special Permit. Among other things, it specified the creation of additional turning lanes and two signalized intersections. The town also wanted more affordable housing within the project, as it worked to meet the 10% minimum threshold established by Chapter 40B of the Massachusetts general laws. In a compromise, one of the rental buildings was designated to have 25% of its units affordable, creating a "mini 40 B" project within the shipyard. This created 24 affordable units within the project (Lacy, 2010). Public access to the water and maintenance of marina facilities was critical to the town, so the Special Permit was conditioned on creating a public access easement along the waterfront walkway. The Special Permit also allowed for a reduction in the amount of required parking, and allowed for shared parking (Town of Hingham Board of Appeals, 2003).

According to former planning board member Dick Cook, people involved on both sides of the project were committed to seeing development of the shipyard site come to fruition (Cook, 2010). Following a series of public hearings, the Planning Board recommended the plan (at that time, as a recommendation and not a required approval), and it went to the ZBA for the Special Permit. In early 2003, the ZBA began to hold its public hearings, and on May 8, 2003, the Special Permit was granted, along with Site Plan approval (Town of Hingham Board of Appeals, 2003).

Hingham Shipyard Master Plan, 2003 (Cecil Group)

3. The Launch

Having gained the entitlements for the project, SeaChain did not immediately develop the land. Rather, Trendowicz divided the entitled property into three parcels, keeping only the existing marina. In 2006, SeaChain finalized agreements to sell these parcels to other developers. The rental housing portion was bought by Avalon, the for-sale housing portion by Roseland (which was later bought by Lennar), and the mixed-use portion by Samuels and Associates (Meyer, 2007). The site had been designed to allow for this type of division: with the exception of the Samuels parcel, uses were separated horizontally. This type of horizontal mixed-use made it possible to develop the site in phases, with each use timed to the market. Critically, each new developer did not have to go back to Town Meeting to modify their plans. They could apply for modifications to the Special Permit directly through the Planning Board and ZBA. This case study focuses on the mixed-use portion, which Samuels named "The Launch at Hingham Shipyard."

Samuels, a Boston-based developer specializing in retail and mixed-use projects, made some changes to the master plan, and presented conceptual modifications to the town selectmen in July of 2006. There were several modifications to the Special Permit. The permitted plan showed all small, shallow inline retail. They proposed making some larger retail spaces to create junior anchors. Samuels also proposed increasing the number of restaurants and the

total restaurant square footage, from 38,000 sf to 45,000 sf. Finally, and perhaps most controversially, Samuels wanted to anchor the Launch with a mid-size, 8-screen theater (Meyer, 2006).

Samuels worked with Hingham to conduct a total of 13 public meetings, as it sought Site Plan approval and modifications to the 2003 Special Permit. (Samuels). In a process that lasted just under a year, both sides worked diligently to find solutions.

According to Samuels project manager Leslie Cohen, a critical component in moving the project forward was the formation of a “working group.” It was made up of one member of the Planning Board, one member of the ZBA and Samuels, and allowed the groups to discuss issues jointly. Since there was not a majority of any board present, this method didn’t infringe upon the Open Meeting law (Cohen, 2010). Getting interested parties in the same room – in meetings that often lasted late into the night – helped to build consensus and clarity around the issues, and to bring the entitlement process to a better, speedier resolution. The group typically met at Town Hall.

Massachusetts has an Open Meeting law, designed to provide public access and transparency for public meetings. The statute says that where there are deliberations among a quorum of a public body (or a quorum of a subcommittee), the meeting is subject to open meeting regulations. Facially, there is nothing in the statute to suggest that meetings of a working group, such as the one formed for the Launch, are in violation of open meeting laws. I spoke with the Attorney General’s office, and was told that the application of the Open Meeting law to working groups depends on the nature of the working group. If the group is set up only to discuss ideas and exchange information, and does not exceed a quorum, it is not subject to the requirements of the Open Meeting law. However, if the group is empowered by the municipality to act and make decisions, then it is subject to the Open Meeting law (Mantyla, 2010). In the case of Hingham, the working group met to exchange ideas and never voted or made binding decisions . The group was also approved by Town Council (Lacy, 2010).

The two boards also held joint public hearings. According to then-Planning Board Chairman Susan Murphy, “The joint hearing process with the Board of Appeals definitely benefited the process, the abutters, and the final outcome” (Meyer, 2007).

Among the proposed changes, perhaps the biggest sticking point was the addition of a movie theater to the mix of uses at the Launch. Samuels recognized that although the retail tenants would value the market created by the transit element, the project was not a traditional downtown, “Main and Main” location. The project would also be in competition with the recently completed lifestyle center Derby Street Shoppes, just a few miles away. The Launch needed something to differentiate itself, and to create a unique mix of uses that would bring a critical mass into the project. A strategy of providing dining and entertainment emerged, with the theater anchoring the entertainment uses (Cohen, 2010). Steve Samuels, himself a movie producer, brought locally-owned Patriot Cinemas into the project.

It’s not uncommon for movie theaters to generate concerns within the community: about traffic, teenagers loitering and late-night problems. In the case of Hingham, these concerns were sharpened as townspeople recalled a problematic cinema at the Harbor Lights Mall in Weymouth, just down the road. Additionally, there was concern that Patriot would abandon Hingham’s much loved single-screen theater downtown, Loring Hall (Cohen, 2010). Even after granting approval, the Planning Board still had some “lingering concerns” about the impact of the theater (Meyer, 2007)

To get over this hurdle, Patriot promised that it would not close Loring Hall, and Samuels reduced the size of the theater from eight screens to six. Patriot Cinemas’ promise held weight, since the chain is owned by Hingham residents, the Scott family. Samuels argued that loitering and late-night problems would jeopardize the value of the luxury housing they planned to build directly adjacent to the theater, and would therefore not be tolerated. Samuels met the town halfway by reducing the size of the theater, and agreeing to a “use clause” in the modification to the Special Permit. The use clause specifies high quality movies, and restricts movies targeted to teenagers (Cohen, 2010).

Out of the public meetings came a strong desire for improved access to the waterfront and more public space (Sardegna, 2010). In response, the plan was reworked to open up views, and one of the planned residential buildings was moved away from the water’s edge, opening up the shoreline. The waterfront park was increased by about 50%, from 30,123 sf to 47,835 sf, and an amphitheater was incorporated into the design (Samuels).

The design of the Launch became another point of debate. The 2003 Special Permit plans showed quaint, seaside-style buildings, but as the Launch was reviewed, the community voiced a desire for more ”authentic” architecture (Cohen, 2010). The project’s head designer, Mark Sardegna of Elkus/Manfredi, noted that Hingham is a town with lots of local control and pride in its character. While Hingham does not have a design review board, the Planning Board, the ZBA and the community were very involved in critiquing the design (Sardegna, 2010). As a result, a more “industrial” aesthetic was developed, in keeping with the shipyard’s history. Facades were broken down to smaller scale elements, and high quality materials were specified. This type of rigorous, detailed design review may be seen as a barrier to entry – or, it may be seen as an historic town simply ensuring the aesthetic quality of new projects. In this particular case, although the design review was rigorous, it was not a barrier.

The Launch also had to meet conditions of the 2003 Special Permit. SeaChain had agreed to the creation of a museum, showcasing the history of the shipyard. This remained an important component to the town, and especially to residents who had worked at the shipyard in its heyday (Ader, 2009). Rather than create a single indoor space, as perhaps the town had initially envisioned, Samuels proposed and the town ultimately approved the creation of a historic “walking tour,” threading through the project. In cooperation with the Hingham Shipyard Historical Foundation, the Launch includes a series of interpretive panels, displays and the reconstructed shipyard gatehouse. In addition, the theater lobby shows the documentary film created by the Historical Foundation, “Remembering the Hingham Shipyard.” Although the historical nature of the site added complexity to the entitlement process, Samuels saw it as a net benefit. Cohen adds that the history really helped to brand the project and create genuine interest (2010).

Following a process lasting about one year, the Planning Board approved Samuels’ site plan in May of 2007. Just a week later the ZBA approved Samuels’ modifications to the Special Permit (Meyer, 2007). By September of 2009, 70% of the retail space was leased (Ader, 2009). The Launch had its official grand opening in June of 2010, and future phases will see the build-out of the 94 for-sale residential condominiums (Cohen, 2010).

The Launch at Hingham Shipyard Site Plan (Samuels and Associates)

The Launch at Hingham Shipyard (photos by author)

4. Is it TOD?

The Shipyard is connected to transit by the MBTA water ferry, which runs only to Rowes Wharf in downtown Boston. Ferry service started in 1975, and greatly increased in popularity with the construction of the "Big Dig," which made the drive into Boston very difficult. However, with the Big Dig completed, more people resumed driving. The addition of a new MBTA Commuter Rail line with a stop in Hingham just a few miles away is proving stiff competition for the ferry, whose ridership has declined each year, to about 1,535 people per day at present. In fact, almost every year there is talk about shutting down the ferry, but it has loyal riders who lobby for it to stay.

I would argue that the Shipyard is not *really* a TOD, in the full sense of the term. While it has a mix of walkable uses that *could* work with transit, the quality and use of the transit is extremely limited. The ferry has its role, but it is limited in its reach, and the Shipyard has not become a hub for other types of transit. It will be interesting to see how many of the Shipyard's eventual residents take the ferry to commute to work.

However, for Samuels, the ferry is valuable – especially to particular tenants. Cohen told me that the ferry was a key selling point for several tenants, including the supermarket, Fresh Market. A daycare center is also under construction. These convenience uses serve the ferry commuters, and for them the daily traffic is critical. According to Samuels, discontinuing ferry services would be a "big deal" for the viability of the Launch (Cohen, 2010). Although the Shipyard is not truly a TOD, some of its uses do have an important relationship to the transit.

Finally, there is the argument that quasi-TODs like the Shipyard benefit from the political value attached to TOD and, more broadly, smart growth. In Massachusetts especially, both governors Romney and Patrick have established programs and incentives for smart growth projects. Calling a project TOD, even if it is truly only transit-adjacent – or in the case of the Shipyard, severely limited by its transit mode - can help to give a project political "legs." In the world of development entitlements, it's difficult to understate the value of political will and support.

Chapter 9: Case Study: Westwood Station, Westwood

Project Basics

Westwood Station is a proposed 140-acre, 4.5 million square foot mixed-use redevelopment in the town of Westwood, MA (Bolton, 2010 (3)). The project site is served by the MBTA commuter rail Route 128 Station, which runs to South Station in downtown Boston. The Route 128 station also serves Amtrak, which makes daily commuter trips to Boston and Providence. In addition to the transit connection, the site sits near the intersection of two major highways, Route 128/95 North and Route 95 South. The site is in a former industrial and office park on the east edge of town, near the town line with Canton.

The permitted uses consist of 1,000 units of housing, 1.5 million sf of office, 1.35 million sf of retail and a hotel. The project was planned to be built in several phases. All of the housing was to be for-sale, with an option to rent units for the first few years as a concession to the developer to aid absorption. In 2007, the project was budgeted at $1.5 billion (Vaznis, 2007).

As of this writing, the project has not yet been built. The initial lead developer, Cabot Cabot and Forbes (CC&F), and primary investor, Commonfund Realty, were forced by the project's lender, Anglo Irish Bank, to sell the project. Eastern Real Estate moved to acquire the property in October of 2010 (Bolton, 2010), and the town has been reviewing a revised, much scaled-down proposal. However, there is some doubt as to whether Eastern will complete the acquisition of the project with Anglo Irish, which was itself recently bailed out by the Irish government. There is also a pending lawsuit, in which the town of Westwood alleges road construction damages against Commonfund (McMorrow, 2010). The future of Westwood Station, unfolding in the midst of the current recession, is far from certain.

Westwood Station Context (Google Earth, edited by author)

Westwood Station Site Plan (Elkus/Manfredi)

The Town and its Regulatory Context

Settled in 1640 and incorporated in 1897, Westwood is a quiet, upper-middle class town. It is located along Route 128 southwest of Boston, making it an ideal location for commuting into Boston or to the many office centers along 128. Largely built out after World War 2, it is almost totally residential in character, with little commercial development and no substantial downtown.

According to the American Community Survey's 2008 estimates, Westwood has a total population of 14,117, with a median household income of $87,394 (about one-third above the Massachusetts median of $64,684). Of its residents, 89.2% are homeowners, with a median home price of $360,600. High educational attainment is another indicator of a strong market, and 57.4% of Westwood residents hold a bachelor's degree or higher (ACS, 2008(3)). The town is also projected to grow over the coming decades. MetroFuture's analysis of population growth following current trends predicts 13% growth in Westwood's population between 2010 and 2030 (MetroFuture, 2007). MAPC projected that high population growth in towns to the south of Boston would be fueled by job growth, with Westwood one of nine towns expected to add between 2,000 and 5,000 jobs. Availability of land, proximity to Boston and highway and rail access all contributed to the growth projections (Carroll, 2006).

Mike Jaillet, Westwood's Town Administrator, has worked for the town for the past 23 years, and is quite familiar with the history of the site. The site was built as a large industrial park in the 1960s and 1970s, and operations on the site accounted for about 70% of the town's commercial tax base. A combination of shifting industrial activity and the early 1990s recession brought the area to about a 50% vacancy rate. This had a huge effect on Westwood's tax revenue, and as the high vacancy rate persisted, the town began to look at ways to turn the property around (Jaillet, 2010).

In the early 1990s Westwood carried out a study to gauge the economic development potential of the site. This led to a rezoning, allowing more office space and increasing the allowable height and FAR (Jaillet, 2010). NStar built its headquarters there in 1996, but little other new development followed. Anxious to see the site redeveloped, and the residential tax burden eased, Westwood brought in developers and consultants to better understand what it would take to redevelop the site. David Begelfer, local chief executive of the National Association of

Office and Industrial Properties (NAOIP) recalled those meetings, saying "basically we said Westwood is a tough town. Like many communities, it had a lengthy and unpredictable process, with an attitude bordering on no growth" (Palmer Jr., 2006). The chairman of the town's Economic Development Advisory Board, Steve Rafsky, told the *Boston Globe*, "The one thing we heard loud and clear was that 'Westwood is not open for business, it's antibusiness'… We needed to change that feeling out there" (Viser, 2006).

Rafsky was an advocate for changing zoning at several locations in Westwood, to allow for more "pro-development" regulations. Commercial development was critical to the town's fiscal health: between 2000 and 2005, the town's average residential tax bill went up by 54% (Viser, 2010). Regarding what would become of the Westwood Station site, the town was involved in preliminary discussions with Jay Doherty of CC&F, which owned part of the existing site. Discussions resulted in a mixed-use concept for the area, driven by the recently constructed rail station, market demand and state smart growth initiatives (Jaillet, 2010). In Town Meetings in 2004 and 2005, Westwood residents approved several zoning changes to help encourage development. Among the changes was the creation of three mixed-use overlay districts, one of which covered what would become the Westwood Station site. The formerly dry town also voted to allow liquor licenses, hoping to attract top-notch restaurants as part of new development (Viser, 2006).

Like many Massachusetts towns, Westwood has adopted a home rule charter, and is governed by an elected Board of Selectmen. The selectmen call annual Town Meetings, at which residents vote on major issues such as rezoning. In the case of Westwood Station, the Selectmen had a prominent role. Town Meeting voted to authorize the Board of Selectmen, as the Chief Executive Authority of the town, to negotiate and execute a Development Agreement. Interestingly, the negotiation of the Development Agreement ran parallel to the Special Permit review, which was conducted by the Planning Board (Jaillet, 2010).

The Planning Board is the Special Permit granting authority in Westwood, with five elected, volunteer members. As is typical in many smaller towns, peer review consultants were brought in to assist the Planning Board at the developer's expense. While there were numerous other town departments and boards that are involved with redevelopment projects, this chapter

focuses on the Planning Board and the Selectmen. It is worth noting, however, that the Zoning Board of Appeals (ZBA) grants water district permits (Jaillet, 2010).

The Mixed Use Overlay District (MUOD) allows mixed-use development by Special Permit in designated parts of town. Broadly, the MUOD sets use limitations, maximum floor area ratios (FAR), parking requirements and housing constraints, among many other conditions. According to the bylaw, a developer first submits an Area Master Plan to the Planning Board for approval. The many other permits required for the project may be consolidated, helping the process to become more streamlined. Changes to the Master Plan were submitted to the Board as Amendments or Supplements. Following the Master Plan review and the granting of the Special Permit was a phase-by-phase site plan review (Town of Westwood, 2010).

The Planning Board has a fair amount of discretion in deciding how to implement the Special Permit review process. As Howard Davis, former Director of Development at CC&F explained in an interview, *everything* was negotiated, and permitting followed a multi-step review process. (Davis, 2010). Westwood Station was the first test of the MUOD.

The Story of Westwood Station

1. Initial Plans

With the new mixed-use zoning in place and the town looking for large new projects to reduce the residential tax burden, the Westwood Station site was primed for redevelopment. CC&F already owned a portion of the site: in 1997, the firm had bought the 25-acre General Motors warehouse property (Palmer Jr., 2006). Urban designers Elkus/Manfredi were brought on board to explore options for the 25-acre site, and the size of the project grew as it gained momentum (Roessler, 2010). The same year, the MBTA and Amtrak were preparing to build a big new station, serving both the commuter rail and the Amtrak Acela train. In 2005, GM left the building (Adams, 2006), and CC&F continued to assemble parcels, backed by Commonfund Realty Investors LLC in Connecticut. Working with twelve property owners, CC&F got about 20

parcels under agreement, and, by the end of 2005, had assembled more than 130 acres (Palmer Jr., 2006).

Westwood Station Timeline

Date	Events
1960s-1970s	Industrial Park warehouses built
early 1990s	Economic development study of site Led to rezoning
1996	NStar builds headquarters
2004-2005	Town Meeting approves zoning change, creates three Mixed-Use Overlay Districts (MUOD)
2005	CC&F assembles 130+ acres
2006	CC&F files application for Master Plan Special Permit
2007	Special Town Meeting to discuss size of project MEPA approval granted PB grants Special Permit and approves site plan Canton appeals MEPA decision
2008	PB grants amendment to Special Permit
2009	CC&F proposed scaled-back Phase 1
2010	SJC rejects Canton's MEPA apeal Allocation of $55m from state stimulus money Town Meeting changes zoning fro smaller MUOD Eastern Real Estate begins acquisition of site

Master planning for the site began with a steering committee from the town and CC&F, working together to establish a vision for the site (Jaillet, 2010). Hoping to create a substantial tax base with office development, the group considered amenities that would be attractive to office users. A diversity of housing options and nearby restaurants are both desirable to office tenants. It was also important to differentiate Westwood from other large office centers along Route 128, such as Burlington and Waltham (Roessler, 2010). CC&F envisioned a large, mixed-use, transit-oriented "lifestyle town center." Initial discussions described a huge project, with about 4.5 million square feet of development and a budget of $1.5 billion. Retail was the economic driver of the project, with 1.2 million square feet proposed. At 1.8 million square feet, office was also a large component of the Westwood Station plan (Palmer Jr., 2006). CC&F partnered with retail specialist New England Development to bring additional expertise to the project.

Howard Davis joined CC&F to lead the entitlement process for Westwood Station. Over three and a half years, he worked with the town to permit the project and negotiate the development agreement. Given the size of the project – which would have amounted to the largest mixed-use TOD in New England at the time – this was a daunting task (Schworm, 2006(2)). Additionally, Commonfund Realty wanted the entire project permitted at once. This would have the advantage of securing all the entitlements up front and allowing the town to review the project in the context of the "big picture." However, Davis cautioned against this approach, since it would likely mean commitments to a great deal of infrastructure and mitigation money upfront. In a project as big as Westwood Station, this had the potential to create significant financial barriers (Davis, 2010).

The project got off to a quick start. In the first two weeks of 2006 alone, CC&F held about several public and government meetings related to Westwood Station (Palmer Jr., 2006). Although the application for the Master Plan Special Permit was not filed until December of 2006, a great deal of time was spent reviewing the project with the town. CC&F held a public forum to discuss the project in early 2006, and traffic proved to be the main concern of town residents. The size and scope of the project was much larger than some residents had envisioned when they voted to rezone the site for mixed-use. Jay Doherty of CC&F acknowledged that traffic was an issue, but argued that the transit-oriented nature of the project would mean more residents commuting by train, and fewer driving. While residents saw the much-needed tax benefits Westwood Station would bring, residential neighborhoods bordering the site were extremely concerned about the impact increased traffic would have on their neighborhoods and property values (Schworm, 2006). A series of neighborhood meetings ran through mid-2006 (Schworm, 2006(2)).

In hopes of assuaging traffic worries, CC&F committed to making millions of dollars in improvements to the surrounding roads, and planning the project so as to discourage drivers from using adjacent residential neighborhoods as shortcuts. The project got a major shot in the arm with the announcement of a federal funding allocation to build a new ramp off of Interstate 95, directly adjacent to the project. However, leaders in neighboring Canton began voicing concerns over increased traffic in their town (Schworm, 2006(2)). Since the Westwood Station site is on the town line with Canton, Canton would bear some traffic impact but would receive no property tax revenue from Westwood Station as compensation.

Schools were another concern among Westwood residents. 1,000 new housing units could bring a large increase in school-age children, adding costs and offsetting gains in the town's budget made by increased commercial development. In response, CC&F announced its intention to build largely one- and two-bedroom condominiums, marketed towards young professionals and empty nesters (Viser, 2006). In the negotiations to come, both schools and traffic would remain major sticking points.

2. Capacity and Consultants

In December of 2006, CC&F submitted a Master Plan to the Planning Board and filed for a Special Permit (Roessler, 2010). Westwood Station was the largest project ever proposed for the town, and was the first test of the recently enacted mixed-use zoning bylaw. According to Town Administrator Jaillet, the size and complexity of the proposed Westwood Station overwhelmed the town. To increase the town's review capacity, new staff members were hired. An Economic Development Administrator came onboard to represent the economic interests of the town and a Project Manager dedicated to Station Landing joined the team (these two positions were subsequently merged). A Town Planner was in place, and a Community Development Director was added (Jaillet, 2010). These new staff supported the Planning Board, the Selectmen and various other boards in the review of Westwood Station.

But perhaps the greatest addition of capacity came from the incorporation of consultants, who advised the Planning Board and were paid for by CC&F. Seconding Jaillet, Davis of CC&F said that given the magnitude of the project, the town simply didn't have enough resources to be responsive to proposals (Davis, 2010). CC&F was eager to move through the entitlement process quickly, both to limit its expenses and to get the first phase built and occupied in what was a very active, competitive real estate market.

One consultant, urban planner Steve Cecil of the Cecil Group, proved instrumental in helping the town to interpret its recently created Mixed-Use Overlay District (MUOD) bylaw. The language in the MUOD bylaw specifies maximum densities, prohibited uses, parking ratios and basic housing controls, but as Davis characterized it, everything else was fair game. Cecil's role was to assist the Planning Board in interpreting the MUOD. He helped the Planning Board to

draw the line between what was entitled as-of-right and what was subject to discretionary review (Davis, 2010).

The Cecil Group came in as peer review consultants for architecture, landscape architecture, urban design and signage. In helping the Planning Board to implement the MUOD bylaw, Cecil said that the biggest challenge was to determine what the rules were, and when the town was overstepping its authority. This entailed interpretation of the zoning regulations and translation into design standards and guidelines. The standards and guidelines were developed to clarify the intent of the MUOD bylaw and draw “bright lines” around what would be allowed, creating predictability and removing discretion where it was not intended to apply during the review process (Cecil, 2010).

Over a period of about nine months, Cecil worked with Westwood and CC&F to craft the guidelines. The idea was that by negotiating issues in advance, the review process would be streamlined as the project proceeded. The standards and guidelines would serve to expedite future reviews, creating a checklist for individual phases of the project as they come through. Some flexibility was built into the guidelines. While they were meant to protect the town in worst-case scenarios, they could be overridden if both the town and the developers agreed. Critically, although design standards were part of the Planning Board’s *intent* when the MUOD bylaw was created, no guidelines were in effect at the time the Special Permit application was filed. This meant that as the guidelines were developed, CC&F agreeed to follow them, even though they came into effect *after* Special Permit application was filed. CC&F agreed to the design guidelines in the interest of expediting the permit. The design guidelines became an agreed-upon condition for the Area Master Plan Special Permit (Cecil, 2010).

Even with the design guidelines in place, the Planning Board was in a difficult position. It was charged with reviewing the largest, most complicated project the town had ever seen. Given the size, and concerns about traffic and school burdens, the project was quite controversial within the town. However, there was a clear need to increase the commercial tax base within Westwood. It was a balancing act, between protecting the town from adverse consequences and moving Westwood Station forward.

To assist the Planning Board, a large number of consultants were brought on, at CC&F's expense. These consultants included a lawyer, traffic engineers, urban planners, environmental planners and water quality consultants, to name just a few (Jaillet, 2010). According to Davis, the legal advisor to the town played a strong role in many matters. Davis also gave the anecdotal example of the "critter consultant," who was hired to advise on the design of project boundary fences that would allow wildlife such as raccoons to pass through, but keep rats from getting into adjacent neighborhoods. The Planning Board was tasked with managing the consultants, but understandably became overwhelmed (Davis, 2010). The town had to hire a special consultant just to coordinate and expedite the consultants' work.

It is not unusual for a town to bring in consultants to increase their expertise and capacity when reviewing a development proposal. However, it is debatable whether there was simply too much peer review in the case of Westwood, and whether the consultants were properly managed. Cecil thought that the peer review process was effective and expedient, but not everybody agreed. Jaillet was reflective in questioning whether there was excessive peer review. The Planning Board, in seeking to do a thorough job and protect the town against negative impacts, requested information and review every step of the way. This generated lots of work for consultants, who each had no control over the information flow, and the process got out of hand. It was an overwhelming project with lots of complexity, made more challenging because of its size. Says Jaillet:

> That whole process has been described as full employment for consultants. It was so massive and so large that nobody ever had complete control over the [work] that the consultants were doing, and we had a Planning Board that just wanted more and more and more from the consultants, and the developer just continued to pay and pay and pay whatever it took just to get this thing processed. That, I believe, in everybody's opinion, was over the top (Jaillet, 2010).

Davis of CC&F was equally thoughtful in evaluating the role consultants played in the review process. Essentially, the Planning Board was trying to follow the consultants' advice on what was a very controversial project. Most people in town thought they needed the project for tax dollars, but wanted it on their own terms: at a smaller scale, with no hotel, very little residential

and no chain stores. Westwood Station was the "first in," the first and largest mixed-use TOD proposal in Westwood, and there was a big learning curve. The cost of the consultants also contributed to the overall cost of entitlements. According to Davis, at the height of the review process, CC&F was spending about $500,000 per month. The total bill for consultants came to over $8 million (Davis, 2010).

3. The Special Permit

As the consultants came on board, two of the five members of the Planning Board faced re-election campaigns. The two board members kept their seats, in a decisive election that showed support within the town for the work the Board was doing with Westwood Station (Schworm, 2007). However, concerns about traffic continued to grow, especially from neighbors of the Westwood Station site and residents of Canton. In June of 2007, a special Town Meeting was held, at which neighborhood activists from the adjacent Whitewood Acres Neighborhood Association presented several articles to reduce the size and scope of the project. Among the articles proposed a reduction in the number of housing units to 500, limiting building heights and setting the maximum retail store size at 25,000 sf, in an attempt to keep big-box retailers out of the development. CC&F countered that such limitations would make the project unviable (Vaznis, 2007). Voters followed the town Finance Commission's recommendation of indefinitely postponing a vote on the articles, de facto killing them and allowing the project to proceed. A Boston Globe reporter summed up the issues in a nutshell:

> The tension over Westwood Station is a microcosm of the divisions splitting across the region, as officials and tax-weary residents look to add big developments to their tax base. That sometimes is to the chagrin of other homeowners in their towns or neighboring communities who fear the potential loss of small town character and an influx of traffic (Vaznis, 2007(2)).

Traffic concerns continued to be voiced, as would be evidenced by eventual lawsuits. CC&F made concessions by removing a proposed movie theater from the retail mix and reducing the height of the hotel from ten to seven stories (Vaznis, 2007(3)).

As debate continued, the project crossed a major environmental hurdle and soon thereafter received its Special Permit. In the first week of November, 2007 the State Secretary of Environmental Affairs (under the Mass Environmental Policy Act, MEPA) approved a final environmental impact certificate for Westwood Station (Adams, 2007). On November 20, 2007, the Planning Board approved the Area Master Plan Special Permit and Consolidated Special Permit for Westwood Station (Vaznis, 2007(4)). As far as the Planning Board was concerned, the road was cleared for the project to begin.

Westwood Station Site Plan (Elkus/Manfredi)

4. Concurrent Negotiations

Concurrent with the Planning Board's Special Permit process, the Westwood Board of Selectmen was negotiating a Development Agreement with CC&F. As described above, Town Meeting had authorized the Selectmen to negotiate the agreement on behalf of the town. Although these negotiations were integrated with the Planning Board's Special Permit review (Roessler, 2010), CC&F was pulled between two town Boards, with concessions and guarantees being made to each.

According to Davis, who led the negotiations for CC&F, the selectmen were advocating for issues under their jurisdiction, such as schools, roads and town infrastructure. Like most others in town, they were looking for a net increase in tax revenue from Westwood Station. However, as the review and negotiations progressed, the Selectmen increasingly took an attitude Davis

characterized as “100 percent protection.” In seeking to protect the interests of the town, the Selectmen went an extra step and tried to ensure that there would be *no* negative consequences whatsoever to the town. This made it very difficult for the project to move forward (Davis, 2010).

Development agreements and stipulated mitigation measures are common for complex projects. Although perhaps some of the “asks” from the town were extreme, this discussion will focus on the major issues in the agreement. In attempting to negate any possible negative impacts, the development agreement spelled out mitigation measures and payments. Additional school-age children were an important issue. Above a baseline of 25 additional children added to the schools by the project, CC&F would be responsible for a cash payment for each child. Fire safety was touted as an important consideration by the town’s influential fire chief, so CC&F agreed to pay for a new fire station, new trucks and salaries for additional personnel. Traffic exceeding expected design capacities would also need be mitigated, and CC&F would be responsible for improving roads to maintain their capacity if the actual usage exceeded expectations (Town of Westwood, 2008).

It’s arguable that the Board of Selectmen overreached in requiring CC&F to pay for a new synthetic field at the High School. However, CC&F was eager to move the project ahead, and agreed to $60 million in off-site improvements for the town (Vaznis, 2007(4)). The Development Agreement was signed on April 28, 2008, and was then incorporated into the Special Permit agreement by the Planning Board. Davis, also trained as a lawyer, questioned the legality of that structure (Davis, 2010).

While Development agreements are not uncommon, some aspects of the Westwood Station development agreement created problems for potential lenders. The open-ended nature of some stipulations - particularly around future mitigation money for traffic and schools - made it impossible to know the exact costs up front. This made lenders wary, and as more contingencies had to be built in, expected profit margins were reduced.

A flurry of lawsuits further complicated the entitlement process for Westwood Station. These suits had to be either settled or waited out, and neither option was particularly appealing to

CC&F. However, time was of the essence, and in most cases, CC&F worked out settlements (Davis, 2010).

Right after the Area Master Plan Special Permit was granted in November of 2007, the neighboring town of Canton filed an appeal to the MEPA state environmental decision. Since Canton did not have legal standing to appeal the Planning Board's decision, the state-level appeal was a means for it to try either to stop the project or to gain concessions for anticipated increases in traffic (Campanella, 2007). According to Davis, the town was not interested in working out a settlement with CC&F, although eventually CC&F agreed to Canton's request to build all the highway ramps at the beginning of the project (Davis, 2010). In December of 2008, the Suffolk Superior Court threw out the lawsuit and ordered Canton to pay CC&F's legal fees (Bolton, 2008). Canton appealed the ruling to the Supreme Judicial Court (SJC), but in January of 2010, the SJC rejected its appeal (Business, 2010). Although CC&F had won the case, it had lost a critical two years of time. Davis noted that the outstanding MEPA suit made it very difficult to raise money for the project. Lenders were uneasy having the resolution of an important case up in the air (Davis, 2010).

The other two major lawsuits involved Westwood neighborhood groups, and both of these disputes were ultimately settled. The first group, the Whitewood Acres Neighborhood Association, abutted the project to the north-west, and were most concerned with seeing and hearing the project. In response to height and size concerns voiced by the neighborhood group and others in the town, CC&F agreed to limit the height of the new hotel and erect a noise barrier along the new highway ramp. Additionally, as part of the settlement, CC&F made mitigation payments to landowners, paid for individual landscape design, agreed to build sound fences and simply bought a few houses in the neighborhood. The second neighborhood group was mainly concerned with traffic impacts. To settle the case, CC&F paid the plaintiffs' legal costs and committed to a multi-million dollar traffic calming project on Canton Street (Davis, 2010).

Retail was a major component of Westwood Station, and as the entitlement process moved ahead, CC&F and New England Development were busy trying to land potential retailers. The market for the retail component was far larger than a neighborhood or town center. Westwood Station would be a regional draw, filling a gap in the market along Route 128 between the South

Shore Plaza and the Burlington Mall. Its primary market area was defined as a ten-minute drive from the site, or about a seven-mile radius. This area has strong demographics: a population of around 390,000 with an average household income of $87,000. However, the developers of Westwood Station were not the only ones who were seeking to fill the void in the market. Planning for the 47-acre lifestyle center called Legacy Place just a few miles away in Dedham was also underway (Adams, 2006). Throughout the entitlement process Westwood Station's retail was in competition with Legacy Place, as each rushed to be first and sign major tenants.

Many of the changes to the site plan revolved around changes to the retail uses at the center of the site. CC&F and New England Development negotiated with multiple retailers, each with their own demands. Retailers, working on their own assumptions regarding suburban locations, wanted larger spaces with more dedicated parking. Soon after the Special Permit was granted, an amendment and a supplement to the amendment were filed, adjusting the plan to met the needs of potential retailers (Roessler, 2010). The amendment was approved November 18, 2008.

The Development Agreement had added substantial fiscal obligations to Westwood Station. Additionally, since the entire project had been entitled at once, all of the infrastructure had to be built upfront. The total upfront costs for mitigation and infrastructure were $120 million, according to CC&F (Boston, 2008). Additionally, lawsuits had added substantial time to the process: from the granting of the Area Master Plan Special Permit in November of 2007 to the SJC's decision on Canton's lawsuit in January of 2010. With lawsuits still outstanding, it was necessary to get the project started to keep tenants interested. According to Jaillet, this required a $110 million loan to start the infrastructure work, complete demolition and get the site "shovel-ready" (Jaillet, 2010).

But timing is everything. The town was eager to see the project begin, and CC&F worked hard to get Westwood Station off the ground. But as the legal battles and other negotiations played out, the national economy went into a recession. Funding for large projects of any kind became very difficult to come by. The project got a boost with the allocation of $55 million from the state in stimulus money in January of 2010. The money would have paid for a new highway exit and a new road into the development, and was intended to jump start the project (Ross, 2010). Unfortunately, it was not enough to save the project. The state stimulus funding was

conditioned on starting the project, and has yet to be disbursed (McMorrow, 2010). The future of Westwood Station remains up in the air.

3. The Future?

As the difficulties in securing funding for Westwood Station's first phase of development became apparent, CC&F began discussions with Westwood to change the first phase of the project in mid-2009. They hoped to shift the development program towards more stable big-box retail in the first phase, getting big retailers like the much-anticipated Wegman's grocery store up and running. The town, hoping to see any development begin on the site, was receptive to these changes (Bolton, 2009). In May of 2010, articles were brought to Town Meeting to amend the zoning bylaw and allow a smaller project to be approved. CC&F proposed building a much more modest first phase: 450,000 sf of exclusively retail development to include Target, Wegman's, six junior anchors, 15 smaller spaces and two restaurants (Bolton, 2010). Under the MUOD bylaw this would not have been allowed, as any development had to have a minimum of 200 units of housing, among other conditions. Eager to see development begin, Town Meeting voted to change the bylaw to allow smaller, more limited development in an MUOD by a near-unanimous vote in 2010 (Bolton, 2010(2)).

Westwood Station, Revised Phase 1 Plan April 2010 (Town of

However, even with the scaled-down version, CC&F and New England Development were unable to secure financing and get the project off the ground. In October of 2010, Eastern Real Estate began the acquisition process for Westwood Station. It is for sale by the project's lender, failed Anglo Irish Bank. After five years of planning, CC&F had lost the project (Bolton, 2010). To ensure continuity, a one-year extension on the existing permits was granted on November 8, 2010.

Westwood Station continues to run into problems. The town of Westwood has recently filed a lawsuit against Commonfund Realty, alleging that it refuses to release the property deed to the new owner. The town further alleges that Commonfund owes close to $2 million in overdue taxes and over $1 million needed to complete the promised reconstruction of a major road within the development (Bolton, 2010(4)).

The new owner, Eastern Real Estate, has problems of its own. It is reportedly unable to come up with the money to buy out Anglo Irish Bank and secure its acquisition of the project. The

bank has invested $120 million into the project, and has itself been part of the bail out of the Irish government. Absent the completion of the deal by Eastern, Anglo Irish Bank may look to foreclose on the entire property. Additionally, without a developer in place, the state cannot disburse the $55 million in stimulus money for the planned new highway ramp (McMorrow, 2010).

Looking back, people on both the development and the municipal side of Westwood Station question the ultimate fiscal viability of the project. Jaillet wondered if the project that was initially envisioned was overly optimistic, and if CC&F was too ambitious in its fiscal projections. He also questioned whether Westwood was too zealous in its "asks," as the town tried to protect itself from all adverse effects. Perhaps both sides were simply too optimistic. He also questioned the ability of the market to absorb so many housing units (Jaillet, 2010).

Davis also questioned the fiscal viability of the project, especially as entitlement costs mounted. He thought that the project may have become unviable *during* the entitlement process, due to both the costs incurred and the high costs of initial land acquisition. In round numbers, CC&F bought land for $150 million, and had spent an additional $100 million by the fall of 2010. With land costs at $250 million, it was difficult to attain the necessary profit margins (Davis, 2010).

Looking ahead, Jaillet is hopeful about seeing something come to fruition on the site, and thinks the first phase is likely to be a version of the pared-down retail scheme presented in mid-2009. Any new plans will be put through a new review, and it's possible that some agreements may have to be scrapped and started again from scratch (Jaillet, 2010). Davis seconded this assessment, noting that the entitlement structure in place – permits and development agreement – is extremely complicated and will be difficult to substantially modify. In his assessment, it's likely that any new proposal will go back to square one (Davis, 2010). As the ownership of the property settles, and the economy recovers, it's likely that Westwood Station will come back – but it may be a very different project.

4. Is it TOD?

Since it remains on the drawing boards, it is difficult to say whether Westwood Station will be or would have been a true TOD. However, based on the initial, approved Master Plan, my

assessment is that Westwood Station would have been part TOD, and part higher-density-than-typical shopping center.

Westwood Station is well-connected to Boston for commuters, but the transit component suffers the issues of the commuter rail system. Trains run regularly at peak commuting times but infrequently at other times, making the train inconvenient to all but regular commuters. Undoubtedly, some residents of Westwood Station would have taken advantage of the walkable rail connection, but most of Route 128 Station's traffic would have likely continued to come from park-and-ride customers.

The Westwood Station site's potential for quality TOD also suffers from a basic geometry problem. The existing train station is located on the north edge of the project, rather than in the center. This means that prime locations close to the station would be limited, and the walkability from the southern part of the site would be much reduced. Perhaps acknowledging the limited walkability from the station to the big-box retail at the south end of the site, the town required CC&F to provide a shuttle system that would make a loop through the project. Even with an internal shuttle system in place, it's hard to imagine that the majority of Westwood Station users would be able to set aside their cars and rely on transit for anything other than commuting.

Chapter 10: Analysis and Comparisons

In each of the three cases that this thesis has examined, what are the pivotal factors that either helped moved the project forward or proved to be real sticking points during the process of pursuing entitlements? How do these points compare to my initial assumptions, and what are the surprises? And finally, what are the common themes amongst the cases?

Pivotal Factors: Findings and Analysis

1. Station Landing, Medford

Of the three cases, Station Landing is perhaps the strongest TOD success story, and had the quickest entitlement phase. Although no process is without its sticking points, in examining Station Landing I found myself asking: What helped entitlements for this project go so smoothly? I believe that the four most critical ingredients were:

- The city's political backing and will (particularly the mayor's)
- The previously permitted, distressed site that everybody wanted to see *something* happen on
- The role of linkage fees in creating predictable mitigation
- A strong vision for the project brought by National and Ted Tye

To begin, the site has some specific attributes that aided the speedy approval of Station Landing. It is essentially an island, with no real abutters and no nearby residential neighborhoods. Bordered by state highways on two sides, MBTA tracks on another and the Mystic River on the remaining side, the site has no neighborhood groups or adjoining towns protesting the project or bringing lawsuits. In comparison to the other two cases, this was a huge advantage. The state highways also helped in a less-obvious way: the pre-existing high volume of traffic and state jurisdiction over road improvements helped to diffuse the development's traffic issues for the city. Additionally, the site was in distress and only partially developed. Medford had plans and hopes for the redevelopment of the site for decades, and when the Station Landing proposal came along, the city was ready to act.

This last point underscores a critical ingredient in Station Landing's success: political will and leadership. Mayor McGlynn supported the project and was very involved in seeing it through.

The mayor worked closely with the Director of the Office of Community Development, Lauren DiLorenzo. According to the project's urban designer, John Martin, most of the project review was done in-house, reflecting Medford's high internal capacity. Martin credits leadership on National's side as well, saying that Ted Tye had both a strong vision for and good knowledge of TOD. The developer understood the product well, both what would work and what would be economical (Martin, 2010). Both the municipality side and the developer side brought significant experience and leadership to the process.

One of the components that helped to get all the parties together was the initial architectural animation done by National. This proactive move helped to communicate the vision of the project in ways that drawings and two-dimensional renderings cannot. As the city moved to rezone the site from suburban office park to mixed-use New Urbanist TOD, it helped people to visualize what higher density at the site would actually be like.

Creating predictability in the entitlement process can also go a long way in moving a project forward. As discussed earlier, multiple unknowns drive up development risk. Medford has the benefit of having clearly established linkage fees, which greatly reduce the typical negotiations around mitigation money and impact fees. Fees are clear up front, reducing the unknowns – and therefore the risk – for the developer. There is also a direct and predictable benefit to the city, and the fee schedule removes the burden of negotiating over every project and every change.

Finally, as I heard from many people I talked with in the course of researching this thesis, parking is a component that can make or break TOD projects. The amount of parking required often determines how much square footage can be built on the site, and the cost of providing the parking weighs heavily in calculations of fiscal feasibility. Too much parking eats up land and is costly to build, while too little makes it difficult to lease the space. According to Tye, the ability to reduce the overall amount of parking for the project through shared parking is one major benefit of mixed-use. Additionally, a connection to high-quality transit means that people may have fewer cars and need less parking (Tye, 2010). This is an oft-cited theory of TOD, and at Station Landing, a lower-than-expected demand for parking has actually panned out. Based on initial parking use, Medford was able to reduce the parking ratios for later phases of the project.

I did manage to tease out two sticking points that are worth noting, although they had more to do with project feasibility than entitlements. First, the retail component proved a challenge. It was difficult to get the right mix of retailers that would complement one another and the project's other uses. Both National and the City of Medford wanted strong retailers at Station Landing, but it was challenging to persuade some to depart from their prototypical suburban models. Many retailers have set and proven models for their suburban, big box, large-scale stores. These conventions include everything from amount of parking to signage and location of the main entry. For example, at both Station Landing and the Hingham Shipyard, the parking is located behind the buildings. This means that the retailers have two "fronts:" one facing the main street and one facing the parking. This is a departure from the conventional suburban model with a big parking lot out front, and required some negotiating. Another downside of creating a TOD from scratch is the need to build much of the project up front; it takes critical mass to make a place (Tye, 2010). Even at the relatively small, 16-acre Station Landing site, upfront costs proved a challenge.

2. Hingham Shipyard, Hingham

Interestingly, the biggest sticking points for the Hingham Shipyard came from outside of the town's review processes. Both the land swap with the MBTA and the environmental lawsuit brought by Weymouth held up the project and proved difficult obstacles to overcome. However, there were also several ingredients that helped advance the project. Of the three cases, I think that Hingham is the most "balanced," in terms of positive and negative pivotal factors. The most important factors were:

- The town had previous experience with large-scale redevelopment proposals
- The bylaw is well-written and delegates responsibilities among boards clearly
- The working group vetted ideas and expedited the process
- Sticking points (traffic, schools, movie theater, Back River) were resolved through balanced compromises and reasonable mitigation measures

Several factors helped move the project through entitlements. Just as Medford had been planning the site at Station Landing for decades prior to the project's fruition, the Shipyard site had long been a focal point for redevelopment within the Town of Hingham. As far back as 1983, the town had rezoned the site to allow for mixed use, and was anticipating higher-than-

typical-density redevelopment. Bear Hill Investment's 1988 mixed-use proposal for the site, although unrealized, helped to pave the way for what would come later. I'd argue that the town's experience with this previous proposal for the site - and the chance to discuss and thresh out the issues around redeveloping the site – was a pivotal factor in moving the Shipyard's approval process forward so expeditiously. The town already had experience vetting a large project on the site.

The language of the mixed-use bylaw also played an important role. In crafting its zoning bylaw to allow mixed-use by special permit, Hingham made the requirements and review processes clear. Although the Shipyard is a large and potentially overwhelming project (at 130 acres) the town's boards had clear steps to follow in reviewing proposals. Jurisdiction among boards is spelled out, as is the progression from Preliminary Plan to Final Plan, leading to the granting of a special permit. Furthermore, the bylaw describes clear review procedures for changes to the plan after a special permit is granted, from minor to major modifications. I believe this clarity within the review process was a great boon to the Shipyard.

As Samuels sought to make modifications to the permitted plan for the Launch portion of the project, they formed a working group of members of both Planning and ZBA boards, town officials and members of the development team. While some might say the working group's meetings circumvented the intent of open meeting laws, the informal meetings allowed the group to discuss and sort through components of the project "offline." Critically, the group could meet more frequently than the full boards, and this helped to expedite the process. This working group undoubtedly sped up the process of modifying the special permit, which was good for Samuels. Arguably, it also allowed the full boards to work more efficiently and to focus on the most important issues.

As would be expected, Hingham Shipyard did have its share of sticking points during the entitlement process. The MBTA land swap, which relocated the MBTA's on-site parking lot, proved to be a critical factor. It held up the final site planning and approvals for the project for almost two years, but this process was entirely out of Hingham's hands. As the swap awaited approval by the state legislature, it threatened to stall or greatly modify the project. Ultimately, it took intense lobbying on the part of Hingham's political leaders to bring about the bill's passage.

Clearly, political will and support for the Shipyard from within the town played a crucial role in resolving the land swap.

The debate and ensuing lawsuit over the status of the Back River was another stumbling block. The dispute over whether the body of water bordering the site was part of a river or the ocean had major implications for the Shipyard's site planning. As long as the issue remained unresolved, the final site plan could not be submitted and approved, effectively stalling the project. Although there were legitimate environmental concerns motivating the opposition, Weymouth's lawsuit against Hingham's Conservation Committee reveals an undercurrent of town rivalry. Hingham stood to gain tax revenue, while Weymouth stood to gain traffic. Rather than fight it out in court, a creative resolution was reached which involved compromise on all sides. The mouth of the Back River was defined as a river, invoking the Rivers Protection Act, but the site was declared a redevelopment area, lessening development restrictions, and the project moved forward.

Two expected sticking points came up for the Shipyard: schools and traffic. Since each town runs its own school system in Massachusetts (with a few exceptions), town-by-town quality of schools varies quite a bit. Towns with strong school systems, like Hingham, work hard to maintain and protect their schools. New development brings property tax revenues to the town, but additional school-age children require more school spending. It's a balancing act every town must consider with each new development. Three-bedroom housing units are typically considered more family-friendly than smaller units, and a common way that towns seek to control the amount of new school-age children is by limiting the number of larger units in new developments. As my thesis advisor pointed out, this is sometimes called "vasectomy zoning." At the Shipyard, negotiations resulted in a maximum of 82 three-bedroom units within the entire project.

Suburbs are defined by their reliance upon cars, and it follows that traffic is another common concern. Traffic impacts from proposed developments are closely assessed and debated. In the case of the Shipyard, the increase in traffic was resolved through careful design of new roads and mitigation money from the developer for improvements to existing roads.

Samuels portion of the site, the Launch, had its own issues to overcome as it sought to modify the special permit. First, public access to the water emerged as a critical factor. Water views and waterfront land is undoubtedly valuable to developers and consumers, but maintaining good access to the water was important to the residents of Hingham. As Samuels sought concessions to allow larger retailers and additional restaurants, they opened up the waterfront to the public. The park at the water's edge was enlarged, proposed residential development was set back and a view corridor to the harbor was opened up.

However, the most contentious of Samuels' proposed changes was the addition of a movie theater. This was a surprise to me, but it turns out that theaters often cause controversy. They can quickly become hang-out spots for restless teens, burdening the town's police services. There is also a perception that theaters can become magnets for late-night noise and undesirable activity. But the theater was critical to Samuels: they needed a large entertainment use to anchor the site. In a compromise, Samuels reduced the size of the theater from eight to six screens, and agreed to restrictions on the types of films to be shown. The theater would also be operated by Patriot Cinemas, which is owned by a local Hingham family. This brought added credibility to the deal.

3. Westwood Station, Westwood

Westwood Station, the largest and most complicated of the three cases, was mired in sticking points throughout the entitlement process. No one issue was insurmountable, but combined they created a "death of a thousand cuts." Or, as CC&F's Howard Davis memorably put it, it was like Gulliver and the Lilliputians: no one problem was terrible, but the problems added up, and ultimately the project became unfeasible (Davis, 2010).

While there were many factors that ultimately caused Westwood Station to stall out, the most critical were:

- A lack of leadership and experience on the Planning Board
- Mitigation measures that undermined the financial feasibility of the project (especially upfront costs)
- Mega-size overwhelmed the town and became too big to build as a single project
- The economic downturn made it very difficult to raise funds

Westwood Station did have some positive factors in its favor. The site had recently been rezoned for mixed-use. In theory, the town supported large-scale redevelopment. In fact, commercial redevelopment was critical to Westwood's tax base, and residents of the town had a strong economic incentive to approve the project. But unlike both Station Landing and Hingham Shipyard, there had not been any prior large-scale, mixed-use proposals for the site. Westwood Station would be the first, and largest, proposal of its kind. Although zoning was in place, the learning curve was steep.

The creation of design standards clarified the review process to some extent, and served to codify decisions. They will, I believe, prove to be advantageous to future proposals for the site. They came late to the process, but provided the Planning Board with much needed guidance in the interpretation of the MUOD bylaw. The guidelines create a tangible review framework, and will reduce uncertainty in reviewing future proposals. However, time will tell whether they remain in place for future incarnations of Westwood Station.

Several factors generated complexity in the entitlement process. To begin, the size of the project stands out. It was one of the largest proposed mixed-use developments in New England, and by far the largest project Westwood had ever permitted. Although it is not much larger than the Hingham Shipyard in acres, it is far denser. The size and scope of the project overwhelmed the town, and brought all the issues to the table.

Part of the reason the town was overwhelmed stems from a lack of clarity in the bylaw. Design standards were intended, but not in place. The implementation of the MUOD was unclear, as was the line of authority between the Planning Board and the Board of Selectmen. Both boards sought, quite rightly, to work in the best interests of the town. However, this put CC&F in the difficult position of negotiating the special permit with the Planning Board on one hand, and working out a development agreement with the Selectmen on the other. Both processes were happening simultaneously, and the town was not unified in its approach to CC&F.

A lack of experience and capacity on the town's side further complicated the review. Understandably, in light of the expected major impact that Westwood Station would have had, board members worked hard to protect the town from major adverse effects. However, this

developed into an ethic of absolute protection from any ill effects. This resulted in, as town administrator Mike Jaillet candidly acknowledged, perhaps too many “asks” on the part of the town. The amount of required mitigation slowly made the project unfeasible. For its part, CC&F agreed to conditions that undermined the ultimate financial feasibility of the project. Again, there was no one thing that broke the bank, but many things added up. Open-ended mitigation money for schools and roads created a great deal of uncertainty about what the project would ultimately cost. Requirements for upfront infrastructure and structured parking further drove up costs. The million-dollar artificial turf field for the high school, while not a large amount in the context of the project, was perhaps the most questionable “ask.”

Bringing in consultants to assist a town in the review of a large project, at the developer’s expense, is a common practice. However, in the case of Westwood Station, the use of and reliance upon consultants expanded to the point that a chief consultant to manage the other consultants was required. It appears that the Planning Board did not have full control over the consultants it had brought on. This seeming overuse of consultants was driven by several factors: the inexperience of the town in reviewing such a large and complex project, the town’s natural desire to protect itself and the consultants’ natural inclination to dot all the i’s and cross all the t’s. While valuable, the large role of consultants had the net effect of slowing the entitlement process and adding a great deal of expense.

The site’s location brought challenges of its own. First, there were several abutting residential neighborhoods that opposed the project. Two neighborhood associations brought lawsuits that CC&F settled – in some cases, by buying out the homeowners. Second, the site is on the far eastern edge of Westwood, bordering the Town of Canton. As at the Hingham Shipyard, the neighboring town would see the potential adverse impacts of the development on its traffic, but not the property tax benefits. In a time-consuming process, Canton appealed the state’s MEPA ruling, and refused to settle with CC&F. Over the course of several years, the MEPA lawsuit hung over the project, until it was ultimately dismissed by the SJC. But the damage had been done: time had passed, and with the MEPA approval up in the air, investors shied away from the project.

Finally, like the Hingham Shipyard, traffic and schools became sticking points during entitlements. As former CC&F project manager Howard Davis pointed out, in affluent towns like

Westwood, quality of life is often the most critical factor (Davis, 2010). At Westwood Station, the development agreement set mitigation requirements for impacts on both traffic and schools. However, the development agreement went a step further and made the mitigation money variable, depending on actual impacts after the project's completion. For new school children above a set number, CC&F would have to pay additional fees. If traffic proved worse than anticipated, CC&F would have to increase their mitigation measures. While the development agreement resolved issues around traffic and schools during the entitlement phase, the resolution created a great deal of financial uncertainty for CC&F moving forward.

I do not believe that the last chapter on Westwood Station has yet been written. The town has strong incentives, including its tax base, to continue to push for redevelopment of the site. The groundwork has been laid, and as the economy recovers and new proposals come to the table, there is an opportunity to start fresh.

Chapter 11: Conclusions

Common Elements – And Surprises - Among Cases

As I embarked on this thesis, I had some initial assumptions about pivotal factors in the entitlement process. I supposed that parking and traffic would be an issue in every case, given the suburban context where the car is king. I knew schools would be an issue: every new development – especially those with a residential component - creates an additional burden on a town's schools and other municipal services. I suspected that components of the physical design would be an issue, such as residential unit types, density, height and uses allowed. To be frank, I was initially focused on finding the sticking points, or the factors that inhibit a project's approval. I hadn't given a great deal of thought to the factors that might help to expedite a project's approval.

However, I found that all three cases had common factors that worked to the projects' advantage. All three municipalities had done prior planning for the site, and had amended their zoning bylaws to allow for some form of mixed-use development. There was an underlying desire for increased property tax revenue driving each project, perhaps to the greatest degree in Westwood. And within each case, leaders and visionaries – from the municipality side and/or the development side – emerged. Political will emerged as essential in making TOD happen.

As anticipated, traffic and schools were common obstacles. Parking was much debated in all three cases, but didn't become a sticking point in any case. This is perhaps due to the fact that municipalities are increasingly comfortable with shared parking, and developers are increasingly able to model real parking demands for prospective tenants.

Station Landing had the perhaps paradoxical advantage of being located at one of the state's busiest intersections. Although there was some debate over the issue, the amount of traffic generated by new development would never be more than a drop in the bucket in comparison with the existing traffic volume. Traffic was a more contentious issue in both Westwood and Hingham, but interestingly, each project reached a different resolution. While both required traffic mitigation money and road improvements, Westwood had a bigger "ask." It required all improvements to be done up front, and, as a condition of the development agreement, required

the developer to pay for additional mitigation in the future if the original measures were found not to be adequate. This afforded far more protection for the town, but made the deal much riskier for CC&F. As of this writing, the town has not seen the promised road improvements for the failed development, and is preparing to fight it out in court.

The expected burden on schools was a critical factor for both Hingham and Westwood, but surprisingly did not emerge as a sticking point at Station Landing. As it turns out, a survey of residents found very few families with children living at Station Landing, even in the three-bedroom units (Tye, 2010). As with traffic, Hingham and Westwood found different resolutions to the issue of school burden. Both required projections of the numbers of school-age children that would result from the proposed development. Hingham simply set a cap for the number of three-bedroom units on the site as whole. Westwood required additional payments from the developer in the future if the number of school children proved to be greater than anticipated, creating a much riskier deal.

Neither density nor building height emerged as pivotal factors, though in each case the municipality had strong interest in and input on the architectural design. Arguably, good visual communication of project design – exemplified by the animation done for Station Landing - is essential in helping move a project forward. The height of some buildings became an issue at Westwood, but was resolved by making the buildings shorter. Surprising to me, the most contested use was the theater at Hingham, although I've since learned that large theaters often raise concerns about traffic and congestion.

My research uncovered some other surprises. First, even where zoning for mixed-use is in place, the actual language of the bylaw can be a pivotal factor. Hingham's clearly-written zoning bylaw coherently described the steps for review, the boards responsible and the procedures for changing a special permit. In contrast, Westwood's bylaw left a great deal open for interpretation, including the procedure for special permit review. This lack of clarity made the entitlement process far more difficult for all involved. What's clear on paper is not always clear in practice.

Another finding is that the presence and attitude of abutting neighbors is a significant factor influencing the outcome of the entitlement process. Station Landing has few neighbors and no

residential abutters, which helped make the entitlement process relatively smooth. Westwood, on the other hand, had many neighbors to contend with. The neighboring town of Canton and residential abutters all brought lawsuits against the project, which had to be settled or fought. Hingham, too, had a lawsuit brought by the neighboring town of Weymouth. Neighbors, both towns and residential neighborhoods, are concerned about feeling the negative impacts of a development while not receiving any benefits.

Finally, some of the biggest sticking points in the cases were out of both the developer's and the municipality's control. The MEPA lawsuit at Westwood and the MBTA land swap at Hingham were both critical issues during entitlements. Both issues were essentially impossible to predict, and serve as reminders that entitlement risk can come from unpredictable sources.

What about TOD?

Reading Calthorpe's early writing about TOD, I was surprised to encounter his argument that transit itself is not always a necessary ingredient for TOD; it can come later. This seems counterintuitive. However, in seeming confirmation of this point, I ultimately found that none of the three cases I studied really appears to be about transit per se. They are compact, mixed-use, walkable mega-projects. In the end, the transit is not an indispensable element.

This is not to say that transit doesn't matter at all. Proximity to good transit is clearly an amenity for which some people will be willing to pay a premium. When transit works, it is a good alternative to the car. But most importantly in the suburbs, transit stations are places where towns are willing to think bigger. Transit makes large-scale, mixed-use, higher-density projects more politically feasible. Transit can be used as leverage: if new development has to go somewhere, it should be near the commuter rail. Many suburban stations are surrounded by seas of parking or underutilized industrial land, making it possible to plan for and rezone large parcels.

I wrote that the Station Landing site is essentially an island, surrounded by highways, the Mystic River and train tracks. In fact, all three cases are really "islands." There are few pedestrian connections to adjacent uses or neighborhoods - often by design and at the insistence of neighbors. Even if the transit connection works for some trips, it's likely that residents of the

TOD will have to use their cars to get *off* the "island" and to other destinations. Transit can be a good option for specific trips, but it's always in competition with the convenience and comfort of the car, especially in the suburbs. Unless transit takes us where we want to go faster and with less hassle than the car, many of us will opt to drive.

There will also be many who are driving their cars *to* the "island." A mix of uses and walkable amenities is great for those who live in TODs, but the reality is that the resident population will not be large enough to support the types of retail and services desired. Several hundred residential units will not be able to sustain multiple restaurants on their own. Large-scale, walkable mixed-use places also create destinations within the suburbs: for dining, entertainment and shopping. In each case I studied, the developer stressed the importance of creating a unique draw that would attract people into the development.

None of this sounds terribly positive for TOD: If people are going to drive anyway, why bother? But I'd argue that the greatest benefit of TODs in the suburbs lies in the creation of distinctive, walkable places. Even if you drive to get there, once you arrive you can leave your car behind in the parking lot and get to multiple destinations on foot (also known as the "Park Once" strategy). If you live at a TOD, you won't have to get in the car for every single trip. The benefits of compact, walkable, mixed-use places accrue even with cars still in use. It's not about replacing cars with transit, but rather creating pockets of walkability within the suburbs. These compact places are a needed alternative to typical suburban development, even if you still have to drive to get there.

Recommendations for Planners and Developers

Many factors can help advance TODs within a suburban context. The most important lessons I discovered over the course of researching and writing this thesis are:

- It's important for both planners and developers to understand the "other side." Working groups are an innovative way to vet issues.
- TOD is not for the faint of heart. Projects require vision, leadership and political will.
- Experience counts.
- Clear language in the zoning bylaw is crucial.
- Predictable mitigation is best.

- Planners and developers should look for ways to phase projects and create opportunities for smaller developments.
- Transit may not be a necessary ingredient. Flexibility in thinking about TOD and smart growth is vital.

I sought to approach the question of entitlements from both the side of the municipality and the side of the developer. In all three cases I considered, it seemed that both the planners and developers had a good understanding of what the other side was concerned about. Often, both sides brought up common factors and concerns. This was my first lesson: understanding the "other side" in negotiations genuinely helps to move a project forward. The shipyard's working group served as an innovative means of getting people together to understand and talk through multiple points of view.

Within the planning community, developers are sometimes painted as the bad guys, only out to make a profit. I think it is important for planners to understand the realties of the market-side barriers developers face. Howard Davis told me a great story, while talking about another TOD project he had done the entitlement work for. The city's planners didn't believe that the developer's profit margins were as low as they said they were, so Davis sat down with the planner and opened the books to him, explaining how they got to their bottom line. After that, he says, the planner understood where he was coming from, and the process moved much more smoothly (Davis, 2010).

Creating mixed-use TOD is always an ambitious undertaking. It requires a great deal of will and resolution: it is not for the faint of heart. Leadership and vision are required from both the developer and the municipality. It's critical for the developer to understand the product, and to be able to persuade others – investors, lenders, tenants and municipalities - of his vision. It's equally critical to have strong political will within the town, with a planner, board member or mayor who will "go to bat" for a TOD when it encounters resistance.

For towns, it's difficult to understate the importance of experience. For a planner, walking the town through the entitlements for a TOD will be much easier if those involved have had some experience with TOD, or similar high-density mixed-use project types. Boston's suburbs are composed of small towns, many of which have not had such experience. Further, many small towns, along with their planning staff and boards, do not have the capacity to process such

large projects. In terms of building technical capacity, consultants can be a real boon. However, Westwood Station provides a cautionary tale of over-use of consultants, borne from the best of intentions. I think the lesson learned there is that while technical consultants can be very helpful in bringing needed experience to a town's review process, it is critical that the town - and not the consultants - lead the review process.

For developers, it's critical to understand the town's prior experience with TOD, or similar projects. I think it's not an accident that both built projects I studied had had prior large-scale, mixed-use development proposals on the site: the municipalities had been through it once before. TODs are very ambitious projects for developers to undertake, and I think that it is much more difficult to be the "first mover." As at Westwood, the learning curve is much higher for the first project of its kind.

Another recommendation for planners is to pay attention to the wording of the zoning bylaws written to enable TOD. Not all bylaws are created equal. A well-crafted bylaw, like Hingham's, goes a long way in bringing clarity to the review process. Laying out review responsibilities can also help avoid the situation faced by CC&F in Westwood: negotiating with both the Planning Board and Board of Selectmen at the same time, but in separate processes.

It's clear that the construction of a large-scale TOD can have a great impact on the town: traffic, schools, town character and setting precedents for future developments. Towns have real, long-term interests to consider, and it's important that the planners and board members not just "roll over" and allow any project to proceed. Mitigation is fair, and expected. But it's a fine balance to strike: the town must look for ways to protect itself, but too many "asks" can make a project unfeasible. Some degree of predictability in mitigation is best.

Any development carries its own set of risks, but suburban TOD comes with particular market-side barriers planners should understand. For example, a main street with residential over retail is often promoted as the New Urbanist ideal, but is actually quite difficult to make happen. Putting residential over retail means that a great deal of residential use needs to be built up front, as it is nearly impossible to add extra stories of residential to a retail base after the fact. Too many residential units at once creates an absorption problem: it can take a long time to lease up or sell if there are too many units in the market. Retail comes with its own challenges.

Big retailers often have set ideas about what their stores require and should look like, and it can be an uphill battle to convince them that parking in the back (or on the street) will work.

In the current economic recession, there is some speculation that multi-family may be the first use to recover, with other uses to follow. Towns should bear the unknowns of the current market in mind, and be flexible about phasing big TOD projects. It may not be financially feasible to require all of the infrastructure up front. Building housing or office over retail (mixing uses vertically) requires more to built up front and relies on timing the market correctly for each use. As the market recovers, it may be more feasible for uses to be mixed horizontally rather than vertically. This allows each use to come online as market conditions permit.

TODs are also unique in terms of their size. As Ted Tye pointed out, it takes a certain critical mass to make a place that works. But for smaller towns, projects of over 100 acres are likely to be more controversial than projects that are less than 50 acres in size. There are benefits to be gained from permitting a project all at once, but the benefits must be balanced against the increased opposition and mitigation costs that a larger project can incur.

The large size of TODs can be a challenge. Underlying zoning typically encourages large projects, which have the benefit of allowing the town to see the big picture. But this limits the number of developers that have the capacity to finance and execute big mixed-use projects. Large projects also often come with extensive up-front costs, which can create a significant financial barrier. Both developers and municipalities can wind up biting off more than they can chew. In addition to phasing, it's important to think about other ways to build smaller pieces of walkable, mixed-use neighborhoods. Zoning that allows for some as-of-right compact, mixed-use development would make it possible for smaller projects to be implemented. Planning for horizontal mixed-use would allow multiple developers to take on sections of a project, avoiding the issues that come with mega developments.

It's a cliché to say that a picture is worth a thousand words, but it seems clear to me that strong design communication can go a long way in advancing a project. Those reviewing a project really do care about the physical qualities of the proposed development, and want to understand what the project will look and feel like. While a full-blown architectural animation (like the one

done for Station Landing) is not always feasible, making the design intent clear and legible is very helpful in expediting a project's approval.

Additionally, I propose that a useful way for developers to think about entitlement risk is to consider both systemic and idiosyncratic risk. It is highly likely that schools, traffic, parking and project size will be an issue with every suburban TOD. The risks surrounding these issues are systemic. But each location and project is different, and brings idiosyncratic risks. How much experience does the town have reviewing large-scale, complex projects like TODs? Who are the surrounding neighbors, and is the site on a town line? Are there special environmental considerations? Are there other large institutions that will be part of the deal? Understanding the risks up front is half the battle.

While the research done for this thesis was limited in scope, I believe it has potentially significant implications for advancing TOD in other suburban locations. The lessons learned here could apply to other parts of the country that are similar to the Boston area. This includes markets with high barriers to entry, that are largely built-out and that have strong tradition of home rule and deference to local zoning.

I also believe that this research has important lessons for other types of development, beyond TOD. The suburbs, like any built environment, are continually evolving. As I argued earlier in this thesis, compact, walkable models for infill "retrofits" within existing suburbs are greatly needed. TOD is only one model among many, and while it provides a useful lens for categorizing projects, my recommendations to planners and developers could be used for many project types beyond TOD.

Finally, I think that these three cases underscore the need within the planning and development communities to accept nuances involved with smart growth and TOD. In the end, transit was not an essential component of any of the three cases I studied. However, the presence of transit helped the municipalities to accept large-scale, compact, walkable mixed-use projects, which carry benefits independent of transit use. An extreme view that promotes only the ideal relationship between transit and development misses good opportunities. If we want to advance new models of compact growth in the suburbs, we have to be flexible.

References

ACS (American Community Survey), 2008. *Fact Sheet: Hingham town, Plymouth County, Massachusetts* [report online] Available at: http://factfinder.census.gov/servlet/ACSSAFFFacts?_event=Search&geo_id=&_geoContext=&_street=&_county=hingham%2C+ma&_cityTown=hingham%2C+ma&_state=&_zip=&_lang=en&_sse=on&pctxt=fph&pgsl=010 [Accessed November 11, 2010].

ACS (American Community Survey), 2008 (2). *Fact Sheet: Medford City, Massachusetts* [report online] Available at:http://factfinder.census.gov/servlet/ACSSAFFFacts?_event=ChangeGeoContext&geo_id=16000US2539835&_geoContext=&_street=&_county=medford%2C+ma&_cityTown=medford%2C+ma&_state=&_zip=&_lang=en&_sse=on&ActiveGeoDiv=&_useEV=&pctxt=fph&pgsl=010&_submenuId=factsheet_1&ds_name=ACS_2008_3YR_SAFF&_ci_nbr=null&qr_name=null®=null%3Anull&_keyword=&_industry= [Accessed November 24, 2010].

ACS (American Community Survey), 2008 (3). *Fact Sheet: Westwood town, Norfolk County, Massachusetts* [report online] Available at: http://factfinder.census.gov/servlet/SAFFFacts?_event=ChangeGeoContext&geo_id=06000US2502178690&_geoContext=&_street=&_county=westwood%2C+ma&_cityTown=westwood%2C+ma&_state=&_zip=&_lang=en&_sse=on&ActiveGeoDiv=&_useEV=&pctxt=fph&pgsl=010&_submenuId=factsheet_1&ds_name=DEC_2000_SAFF&_ci_nbr=null&qr_name=null®=null%3Anull&_keyword=&_industry= [Accessed November 15, 2010].

Adams, S., 2006. Reshaping the landscape; Developers plan to transform wide stretches of land near route 128. *The Patriot Ledger*, July 1.

Adams, S., 2007. Westwood Station gets state approval; Construction could begin soon on "town within a town" at site of industrial park. *The Boston Globe*, November 7.

Ader, S., 2009. Getting the past shipshape; Redeveloped Hingham property includes "walking museum" chronicling heyday of World War II shipyard. *The Boston Globe*, September 10.

Allaire, J.R., 1960. Neighborhood Boundaries. [Report online] Available at: http://www.planning.org/pas/at60/report141.htm [Accessed December 12, 2010].

Back to the Village. [Blog online] Available at: http://urbanvillage1.blogspot.com/ [Accessed December 12, 2010].

Bialecki, G., 2003. Ease in permitting must go hand in hand with smart growth. *Boston Business Journal,* October 24.

Boarnet, M. and Crane, R., 1997. L.A. Story: A Reality Check for Transit-Based Housing. *Journal of the American Planning Association* [journal] 63 (2), Available through Proquest database [Accessed October 25 2010].

Bolton, M., 2008. Westwood Station developer wins round; Improvements won't be required. *The Boston Globe*, December 14.

Bolton, M., 2009. Westwood Station developers shift priorities to big retailers; Emphasis shifts to big-box stores. *The Boston Globe*, June 28.

Bolton, M., 2010. Officials: OK to the Station; Westwood: Voters urged to back smaller plan. *The Boston Globe*, May 2.

Bolton, M., 2010(2). Town backs Westwood Station; Meeting vote affirms autumn start for struggling retail project. *The Boston Globe*, May 9.

Bolton, M., 2010(3). Woburn company takes over stalled Westwood Station. *The Boston Globe*, October 1.

Bolton, M., 2010(4). Westwood sues developer over deed to Station land. *The Boston Globe*, November 28.

Bonz Real Estate Advisors, 2003. Memorandum to the Zoning Board of Appeals of the Town of Hingham, July 29.

Business, 2010. Westwood Station challenge rejected. *The Boston Globe*, January 20.

CC&F (Cabot Cabot and Forbes), 1987. Petition: To the Honorable, the City Council, December 8.

Calthorpe, P., 1993. *The Next American Metropolis: Ecology, Community and the American Dream*. New York: Princeton Architectural Press.

Calthorpe, P. and Fulton, W., 2001. *The Regional City*. Washington: Island Press.

Campanella, L.E., 2007. Town challenges Westwood project; Officials say huge development will gridlock traffic. *The Patriot Ledger*, December 6.

Carlton, I., 2007. Histories of Transit-Oriented Development: Perspectives on the Development of the TOD Concept: Real Estate and Transit, Urban and Social Movements, Concept Protagonist. Working paper. Berkeley: Institute of Urban and Regional Development, University of California Berkeley.

Carroll, M., 2006. Growth spurt; Southeastern Massachusetts is the fastest-growing region in the state. *The Boston Globe*, February 5.

Cecil, S., 2010. The Cecil Group. Interview. Interviewed by Kristin Simonson. October 26 2010.
Cohen, L., 2010. Samuels and Associates. Interview. Interviewed by Kristin Simonson. November 10 2010.

Center for Transit-Oriented Development (CTOD), 2004. *Hidden in Plain Sight: Capturing the Demand for Housing Near Transit*, [online] Available at: http://www.reconnectingamerica.org/public/show/hipsi [Accessed October 25 2010].

City of Medford, 1987. *Amendment to Revised Ordinances, Chapter 29 - Zoning*, April 17.

City of Medford, 2010. *Chapter 94 Zoning* [online] Available at: http://library5.municode.com/default-now/home.htm?infobase=13043&doc_action=whatsnew [Accessed November 27, 2010].

Commercial Real Estate, 2007. Samuels & Assoc. gets backing on Hingham Shipyard project. *Boston Business Journal*, February 21.

Congress for the New Urbanism (CNU), 1996. Charter of the New Urbanism. [online] Available at: http://www.cnu.org/charter [Accessed October 22, 2010].

Cook, D., 2010. Town of Hingham Planning Board and Seachain LLC. Interview. Interviewed by Kristin Simonson. October 19 2010.

Davis, H., 2010. Formerly of Cabot Cabot and Forbes. Interview. Interviewed by Kristin Simonson. November 9 2010.

Diesenhouse, S., 2004. Taking risk on rentals; developer bucks trend by building apartments first, condominiums last in $500M mixed-use Medford complex. *The Boston Globe*, December 22.

Diesenhouse, S., 2005. Building on the past; Land shortage forces Bay State developers to turn to “recycled sites,” where the cleanup can be costly. *The Boston Globe*, February 26.

DiLorenzo Popp, L., 1988. Letter to the Medford City Council, Re: Community Development Board Recommendation on the MUZ Zoning Petition, January 21.

DiLorenzo, L., 2010. Executive Director of the Office of Community Development, Medford. Interview. Interviewed by Kristin Simonson. October 13, 2010.

Dittmar, H. and Ohland, G., 2004. *The New Transit Town: Best Practices in Transit-Oriented Development*. Washington: Island Press.

Dunham-Jones, E., 2009. *Retrofitting Suburbia: Urban Design Solutions for Redesigning Suburbs*.

Dunham-Jones, E., 2007. *Retrofitting Suburbia*. Presentation given to Congress for New Urbanism, Illinois Chapter. [slideshow online] Available at: http://www.cnu.org/sites/www.cnu.org/files/RetrofittingSuburbsDupage.pdf [Accessed October 22, 2010].

Fishman, R., 1987. *Bourgeois Utopias: The Rise and Fall of Suburbia*. New York: Basic Books.

Flint, A., 2005. The Density Dilemma: Appeal and Obstacles for Compact and Transit Oriented Development. Working paper, Lincoln Institute of Land Policy, [online] Available at: http://www.ulisacramento.org/documents/tod/4.Implementation/IM5.pdf [Accessed November 1 2010].

Foy, D., 2010. Former Secretary of Commonwealth Development. Interview. Interviewed by Kristin Simonson. Phone. October 12 2010.

Gornstein, K., 1988. CC&F zone OKd; Construction 3-6 months away. *Medford Daily Mercury*, February 3.

Hayden, D., 2003. *Building Suburbia: Green Fields and Urban Growth, 1820-2000*. New York: Vintage Books.

Heaney, S., Beecher, M. at al, 2006. Preservation Project Forum. *The Boston Globe*, September 17.

Hillman, M., 2004. Medford strip mall to get $500M face-lift. *Boston Business Journal*, October 21.

Hillman, M., 2007. In a spongy condo market, developer tries new tactic. *Boston Business Journal*, November 16.

Hillman, M., 2009. Experiencing delays: TOD faces singular hurdles. *Boston Business Journal*, April 10.

Hingham, 2010., *Zoning Bylaw, Hingham Massachusetts, Revised through April 2010*. [ordinance online] Available at: http://www.hingham-ma.gov/document/ZoningBy-Law.pdf [Accessed November 11, 2010].

Hingham Historical Society. [Online] Available at: http://www.hinghamhistorical.org/assets/images/shipyard.jpg [Accessed December 12, 2010].

Hingham Launch. [Online] Available at: http://www.hinghamlaunch.com/assets/u/ImgHinghamLaunchMasterPlan.jpg [Accessed December 12, 2010].

Hingham Shipyard Marina. [Online] Available at: http://www.hinghamshipyardmarinas.com/Images/new%20overview%20map%20of%20marina.jpg [Accessed December 12, 2010].

Jaillet, M., 2010. Town Administrator, Westwood. Interview. Interviewed by Kristin Simonson. October 15 2010.

Jordan, W., 1988. Site review plan law approved. *Medford Daily Mercury*, June 9.

Krieger, A., 2005. The Costs – and Benefits? – of Sprawl. In: W. Saunders, ed. 2005. *Sprawl and Suburbia.* Minneapolis: University of Minnesota Press. Ch. 5.

Lacy, K., 2010. Community Planning Director, Hingham. Interview. Interviewed by Kristin Simonson. October 7, 2010.

Levine, J. and Inam, A., 2004. The market for transportation-land use integration: Do developers want smarter growth than regulations allow? *Transportation* [magazine] 31, Available through Proquest database [Accessed October 25 2010].

Linkage Agreement, 2004. Linkage Agreement Between the City of Medford and National Development, Newton, Massachusetts. October 14.

Mantyla, P., 2010. Massachusetts Attorney General's Office. Phone conversation. December 29.

(MAPC) Metropolitan Area Planning Council, 2008. *Massachusetts Community Types: A Classification System developed by the Metropolitan Area Planning Council.* [Draft July 2008 online] Available at: http://www.mapc.org/sites/default/files/Massachusetts_Community_Types_-_July_2008.pdf [Accessed on November 4 2010].

MAPC, 2009. *From Plan to Action: A MetroFuture Summary*. Boston: MAPC.

Martin, J., 2010. Elkus/Manfredi. Interview. Interviewed by Kristin Simonson. October 19 2010.

(MBTA) Massachusetts Bay Transportation Authority. *Transit-Oriented Development*.

McLaughlin, J., 1998. Shipyard Redevelopment Gets Planning Board OK. *The Boston Globe*, March 8.

McMorrow, P., 2010. Westwood Station's Catch-22. *The Boston Globe*, December 3.

Medaglia, A., 2004. Vision for parcel keyed to housing; City hails project as fighting sprawl. *The Boston Globe*, October 14.

MetroFuture, 2007. Population Projection by Age and Municipality, Current Trends and MetroFuture. [excel spreadsheet online] Available at: http://www.metrofuture.org/content/metrofutures-technical-analysis [Accessed November 11, 2010].

Meyer, C., 2006. Growth part of Shipyard plans. *The Hingham Journal*, July 13.

Nicolaides, B. and Weise, A., ed., 2006. *The Suburb Reader*. New York: Routledge.

Palmer Jr., T., 2006. Mini-city would be an antidote to sprawl. *The Boston Globe*, January 17.

Pikounis, A., 2004. Mixed-use project in Medford seen as having major impact. *Banker & Tradesman*, November 22.

Pollack, S., 2006. On the Right Track: Meeting Greater Boston's Transit and Land Use Challenges. Urban Land Institute Boston District Council report [online] Available at: http://www.northeastern.edu/dukakiscenter/publications/transportation/documents/On_the_Right_Track.pdf [Accessed on October 25 2010].

Porter, D., 1998. Transit-focused development: A progress report. *Journal of the American Planning Association* [magazine] 64 (4), Available through: ProQuest database [Accessed October 25 2010].

Preer, R., 2009. Construction zone: Delays ahead. *The Boston Globe*, May 31.
Realty Notes, 1998. Hingham Shipyard Plan. *The Boston Globe*, April 9.

Puentes, R. and Warren, D., 2006. One-Fifth of America: A Comprehensive Guide to America's First Suburbs. *Survey Series*, June. Washington DC: The Brookings Institution Metropolitan Policy Program.

Quinn, B., 2006. Transit-Oriented Development: Lessons from California. *Built Environment* [magazine] 32 (3), Available through: CSA Illumina database [Accessed October 25 2010].

Racicot, M., 2010. MAPC. Interview. Interviewed by Kristin Simonson. October 17 2010.

Reardon, T., 2010. MAPC. Interview. Interviewed by Kristin Simonson. October 17 2010.

Reid, A., 1999. Hingham: It's Ocean; Weymouth: It's River: At stake is whether stretch targeted by developer falls under protection act. *The Boston Globe*, May 30.

Reid, A., 2001. Foes slow renovation of Hingham Shipyard. *The Boston Globe*, April 22.

Reid, A., 2000. Hingham gets closer look at Shipyard plan. *The Boston Globe*, September 3.
Roessler, B., 2010. Elkus/Manfredi. Interview. Interviewed by Kristin Simonson. October 8 2010.

Renne, J., 2007. The Market for Transit Oriented Development: Niche or Mainstream?, *Planetizen*, [online] Available at: http://www.planetizen.com/node/23980 [Accessed October 10 2010].

Rohe, W., 2009. From Local to Global: One Hundred Years of Neighborhood Planning. *Journal of the American Planning Association* [magazine] 75 (2), Available through: ProQuest database [Accessed October 25 2010].

Ross, C., 2010. Westwood project gets $55m boost; State says upgrades also will benefit area. *The Boston Globe*, January 22.

Salemi, T., 1998. Reaction is mixed to revitalization plan for shipyard. *Boston Business Journal,* January 23.

Samuels. The Launch at Hingham Shipyard. [Online report] Available at: http://www.samuelsre.com/download/95_the_launch_at_hingham_shipyard_elkus.pdf [Accessed on December 15, 2010].

Sardegna, M., 2010. Elkus/Manfredi. Interview. Interviewed by Kristin Simonson. October 13 2010.

Schworm, P., 2006. $1.5B plan near T faces bumpy road; "Smart growth" project stirs traffic, school angst. *The Boston Globe*, April 6.

Schworm, P., 2006(2). Reinventing the village, or more hell on wheels? *The Boston Globe*, July 23.

Schworm, P., 2007. Exit ramp plan violates deal, neighbors say. *The Boston Globe*, May 13.

Shartin, E., 2001. Shipyard plan may shrink Developer talks of scaling back project. *The Boston Globe*, October 25.

Shartin, E., 2001(2). Hingham Shipyard plan advances Land swap issue granted state approval. *The Boston Globe*, December 2.

Shartin, E., 2003. The hum of the shipyard lingers Overhaul will keep historic building. *The Boston Globe*, May 29.

SMSC. [Online] Available at: http://www.smsc-home.org/Getting-Around.php [Accessed on December 12, 2010].

Smart Growth Network. About Smart Growth. [online] Available at: http://www.smartgrowth.org/about/default.asp [Accessed October 22, 2010].

Smart Growth Toolkit: State Policies and Initiatives. [online] Available at: http://www.mass.gov/envir/smart_growth_toolkit/pages/state-policy.html [Accessed November 5 2010].

Sullivan, J., 2010. TRA. Interview. Interviewed by Kristin Simonson.

Town of Hingham Board of Appeals, 2003. In the Matter of Seachain LLC [Special Permit], May 12.

Town of Westwood, 2008. Development Agreement, April 28.

Town of Westwood, 2010. Zoning Bylaw of the Town of Westwood, Massachusetts. [Online] Available at: http://www.townhall.westwood.ma.us/index.cfm?cdid=21323&pid=10116 [Accessed December 16, 2010].

Tye, T. and Manfredi, D., 2004. Station Landing. *Massachusetts Building Congress Newsletter*, October.

Tye, T., 2010. National Development. Interview. Interviewed by Kristin Simonson. October 20 2010.

Utter, M., 2009. Developing TOD in America: The Private Sector View. In: Curtis, C., Renne, J. and Bertolini, L, ed. 2009. *Transit Oriented Development: Making It Happen.* Surrey: Ashgate. Chapter 16.

Verrilli, A. and Raitt, J., 2009. The Use of Chapter 40R in Massachusetts: As a Tool for Smart Growth and Affordable Housing Production. [online report] Available at: http://www.mass.gov/Ehed/docs/dhcd/cd/ch40r/theuseofch40rin-ma.pdf [Accessed October 25 2010].

Vaznis, J., 2007. Crucial vote for Station project – Proposed limits called deal breaker. *The Boston Globe*, June 14.

Vaznis, J. 2007(2). Developer vows to work with critics. *The Boston Globe*, June 24.

Vaznis, J. 2007(3). Big decision nears for Station project. *The Boston Globe*, October 7.

Vaznis, J., 2007(4). Suburban developers thinking bigger; Plans mean new revenue, amenities and concerns. *The Boston Globe*, November 23.

Viser, M., 2006. On board with developers; Huge project tied to commuter rail hub serves as focal point of Westwood's effort to reinvent tax base. *The Boston Globe*, September 3.

Warner, S. B., 1962. *Streetcar Suburbs: The Process of Growth in Boston (1870-1900).* 2nd ed. Cambridge: Harvard University Press.