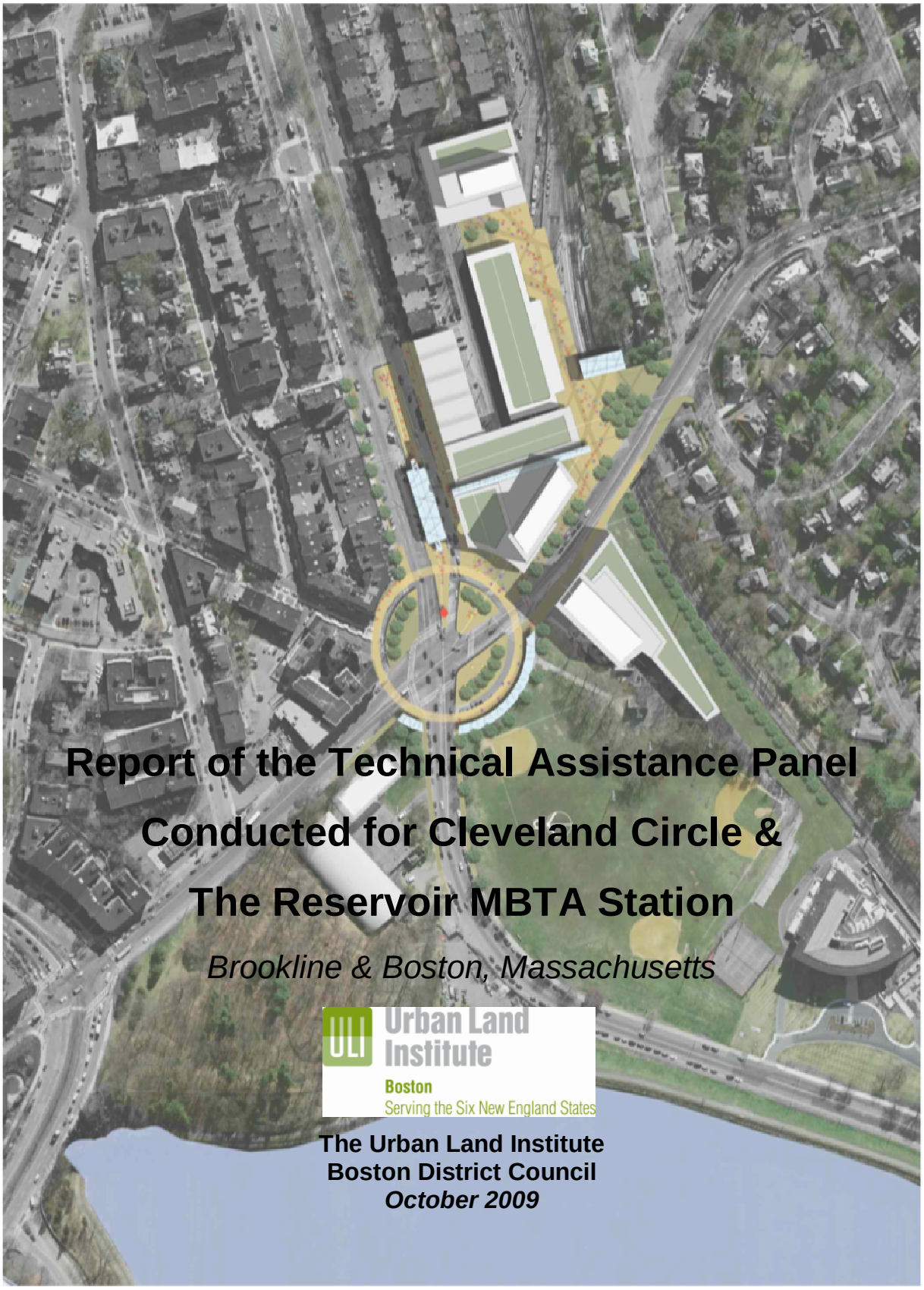

Report of the Technical Assistance Panel Conducted for Cleveland Circle & The Reservoir MBTA Station

Brookline & Boston, Massachusetts

Urban Land Institute
Boston
Serving the Six New England States

The Urban Land Institute
Boston District Council
October 2009

Contents

1. Introduction

In October 2009, a Technical Assistance Panel representing the Urban Land Institute's Boston District Council gathered at the request of the Massachusetts Bay Transportation Authority ("MBTA") to study the development potential of the MBTA property at Reservoir Station and the adjacent MBTA maintenance facility, located mostly in the Town of Brookline and partially in the City of Boston. This report describes the findings and recommendations of the panel. Specifically, this report outlines the TAP process; describes the existing conditions; summarizes critical issues, opportunities and alternatives; and concludes with the recommendations of the panel.

The panel determined that the development potential of the site could not be adequately considered without examining larger issues associated with its context. Therefore, the panel studied issues and opportunities associated with a study area larger than the MBTA site. For the purposes of this report, "the site" refers to the MBTA property and "the study area" refers to Cleveland Circle and surrounding neighborhoods.

Furthermore, the panel believes that jurisdictional boundaries and intergovernmental cooperation play a critical role in any development within the study area. Because of the stake that the City of Boston and the Town of Brookline have in the future of the site and the study area, the panel's recommendations are directed as much to Boston and Brookline as to the MBTA.

The Urban Land Institute

The Urban Land Institute ("ULI") is a 501(c)(3) nonprofit research and education organization supported by more than 40,000 members representing the entire spectrum of land use and real estate development disciplines. ULI's mission is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide.

ULI's Boston District Council ("ULI Boston") serves more than 1,200 ULI members throughout New England. ULI Boston is committed to supporting the communities of New England in making sound land use decisions and creating better places. ULI Boston takes an interdisciplinary approach to the study of land use issues, convenes forums to find solutions, and impartially reports its findings.

The Outreach Committee of ULI Boston administers the Technical Assistance Panel ("TAP") program. Municipalities, government agencies or qualifying non-profit organizations can apply to ULI Boston to request a TAP be organized to examine complex land use and real estate issues. A TAP panel consists of a group of ULI members drawn from a range of professional expertise such as planning, development, design, law, engineering and finance. The panelists volunteer their time for a collaborative consultation designed to provide objective, expert advice to the applicant.

Cleveland Circle & Reservoir Station TAP

In July 2009, the MBTA applied to ULI Boston for a TAP to focus on the property it owns at Reservoir Station on the D-Branch of the Green Line and the adjacent maintenance facility. ULI Boston accepted the application and assembled a panel consisting of the following ULI members:

- Daniel St. Clair, Managing Director, Jones Lange LaSalle [Panel Co-Chair]
- Gabriel Safar, Attorney [Panel Co-Chair]
- Barbara Boylan, Senior Project Manager, Gale International
- Ira Baline, Senior Associate, Bergmeyer Associates
- Jeff Glew, Director, The Concord Group
- Kevin Joyce, Partner, Brown Rudnick LLP
- Kishore Viranasi, Director of Urban Design, CBT Architects
- Lynn Wolff, Principal, Copley Wolff Design Group
- Micah O'Neil, Construction & Real Estate Professional
- Scott Menard, Vice President, Suffolk Construction
- Susan Sloan-Rossiter, Principal, Vanasse Hangen Brustlin Inc.

The panelist contributed their time freely: they were not compensated by the MBTA for participating in the panel. Furthermore the MBTA presented a broad, open-ended question that provided the panel with the opportunity to examine the challenges and opportunities associated with the site in an impartial, objective manner.

Specifically, the MBTA asked the panel to provide input as to what development options would have the potential to generate non-fare revenue without impairing the MBTA's ability to carry out its core mission of providing efficient transit services to the community. In addition, the MBTA asked the panel to consider strategies that would mitigate traffic congestion, noise and other adverse effects of having its transit infrastructure within surface streets and abutting a residential neighborhood.

On October 16, 2009 the panel convened to gather information about the site and the study area. The panel interviewed representatives of the MBTA, the City of Boston, the Town of Brookline, local residents and owners of adjacent commercial properties (photograph 1). In addition, the MBTA provided substantial background material and arranged a tour of the site. On October 28, 2009, the panel reconvened to deliberate. At the end of the day, the panel presented its findings and recommendations to a public meeting held at Brookline Town Hall.

Photograph 1: Panel interviewing stakeholders.

Source Material

In addition to the stakeholder interviews and site visit, the TAP Panel reviewed extensive documentation regarding the site and the study area, including:

- MBTA ridership data and track schematics
- Demographic data and projections prepared by ESRI.
- City of Boston property assessment data and maps.
- Town of Brookline Assessors Property Database.
- Town of Brookline Comprehensive Plan 2005-2015.
- Town of Brookline Town Meeting Handbook, Revised 2008.
- Zoning Code and Map, Town of Brookline Massachusetts.
- Zoning Code and Map, City of Boston.
- *Designing Pedestrian Friendly Streets*, Allston Brighton Neighborhood Planning Initiative.
- *Visual Analysis, Community Renewal Program*, Brookline, Massachusetts, September 1995.
- *Cleveland Circle Streetscape Plan*, Aberdeen & Reservoir Civic Association, October 2002.
- Base maps and site plans provided by Transit Realty Associates, including land use, zoning, and historic district maps.
- Boston College Strategic Master Plan.
- Online information provided at the websites of the MBTA, the City of Boston, and Town of Brookline.

Acknowledgements

ULI Boston would like to acknowledge the Town of Brookline, Transit Realty Associates, and The Waterworks Museum for their assistance and for hosting the panel activities.

The panel would like to recognize and thank all the stakeholders and community members who participated in the interviews and public presentation. The panel appreciates the interest and input of the City of Boston, the Town of Brookline, and the MBTA.

Francis DeCoste of Transit Realty Associates provided the panel with information and logistical support. Kara Brewton, Economic Development Director of the Town of Brookline was instrumental in setting up the Brookline portion of the TAP. Stephanie Wasser, Executive Director of ULI Boston, and Michelle Landers, Manager of ULI Boston provided operational support. Ned Baldwin, an independent real estate consultant, drafted this report.

All images are credited to ULI Boston unless otherwise noted.

For additional information on this TAP or ULI Boston please contact Michelle Landers at 617-239-0564 or mlanders@uli.org.

2. Existing Conditions

The Site

The site that the MBTA requested the TAP to focus on is located at the southeast side of Cleveland Circle, the intersection of Beacon Street and Chestnut Hill Avenue. The site consists of Reservoir Station on the D-Branch of the Green Line and a rail yard and maintenance facility that supports the Green Line.

The site straddles the boundary between the Town of Brookline and the City of Boston, as shown in Exhibit 1. The approximately 1.25-acre Reservoir Station is completely in the Town of Brookline. The approximately 4.5-acre rail yard and maintenance facility is mostly in Brookline, with a roughly 1/2-acre portion in Boston.

Exhibit 1: Aerial image of study area showing site and municipal boundary. (Source: TRA)

The site is physically divided by grade changes into three sections. The upper section, at the southwest corner of the site, fronts on Chestnut Hill Avenue at a higher elevation than Beacon Street and features a semicircular drive containing drop-off for the 56 and 81 MBTA bus lines and a taxi stand (photograph 2).

Stairs and a ramp lead down from the bus waiting area to the second section of the site, Reservoir Station itself. The station area contains platforms (photograph 3), the D-Branch right-of-way, and a yard area where D-Branch cars are sometimes parked when not in service (photograph 4). There is also track access onto Chestnut Hill Avenue (photograph 5).

Photograph 2: Entrance to Reservoir Station.

Photograph 4: Train yard at Reservoir Station.

Photograph 3: Reservoir Station platforms.

Photograph 5: Tracks leading from Reservoir Station into Chestnut Hill Avenue.

The third, and lowest, section of the site is at grade level with Beacon Street and contains support facilities for the Green Line, including employee parking (photograph 6), an office building (photograph 7), a train maintenance building (photograph 8), a train turning loop and train parking. The office building and maintenance building are single-story structures composed of brick and concrete blocks with flat roofs.

Employee parking is in front and behind the maintenance building. Trains can be parked along the north side and in the rear of the maintenance building. Automobile and train access points lead onto Beacon Street and Chestnut Hill Avenue (photograph 9). In addition, there is an entrance on Strathmore Road leading to the employee parking area in the rear of the site. There are no internal connections between the Reservoir Station portion of the site and the maintenance facility portion of the site.

Photograph 6: Employee parking within site.

Photograph 8: Maintenance building in center of the site.

Photograph 7: MBTA office building from Beacon Street.

Photograph 9: View from Chestnut Hill Avenue track entrance.

The Study Area

Tracks run from the site into Chestnut Hill Avenue and Beacon Street, linking the B, C, and D-Branches of the Green Line (photograph 10). The C-Branch runs in the center of Beacon Street (photograph 11). The westernmost stop of the C-C-Branch is located in front of the site. The D-Branch runs in a dedicated right of way to the south of Beacon Street and passes under Chestnut Hill Avenue at Reservoir Station.

East of Cleveland Circle, the south side of Beacon Street currently features a CVS pharmacy, a Dunkin' Donuts, a three-story brick office building and a neighborhood bar (photograph 12). The north side of Beacon Street opposite from the MBTA site features three to five-story apartment buildings with ground floor retail and restaurant uses (photograph 13).

Photograph 10: Tracks in Chestnut Hill Avenue connecting C and D-Branches of the Green Line.

Photograph 12: Southeast corner of Cleveland Circle.

Photograph 11: View east along C-Branch of Green Line in the center of Beacon Street.

Photograph 13: North side of Beacon Street opposite MBTA site.

East along Beacon Street from the site is the Strathmore Road area of Brookline (photograph 14), including the 5.6-acre Waldstein Playground. To the north of Beacon Street is the Aberdeen neighborhood, a mostly residential section of Brighton that is characterized by medium density multifamily dwellings (photograph 15). Brighton has a high percentage of rental households, especially college students, though in recent years the proportion of owner-occupied housing has increased.

Across Chestnut Hill Ave to the west from the MBTA site are a former multi-screen movie theater (closed in 2008) and an Applebee's Restaurant (photograph 16). Further west along the south side of Beacon Street is Cassidy Playground, a City of Boston park (photograph 17). Beyond the playground is the Waterworks, once part of the facilities for the public water supply system and recently renovated into luxury condominiums and the Waterworks Museum.

Photograph 14: View east along Beacon Street at the boundary between Boston and Brookline.

Photograph 16: Circle Cinemas and Applebee's Restaurant on the west side of Chestnut Hill Avenue.

Photograph 15: View to the northeast from Cleveland Circle.

Photograph 17: Cassidy Playground with the Waterworks Condominium in the background.

On the north side of Beacon Street, to the west of Chestnut Hill Avenue, is the Chestnut Hill Reservation, a Massachusetts Department of Conservation and Recreation property that includes the Chestnut Hill Reservoir (no longer part of the public water supply system) and the Reilly ice rink and pool (photograph 18). Further west is the campus of Boston College and the Chestnut Hill neighborhood of the City of Newton.

South of the site is the Fisher Hill neighborhood, featuring single-family residences (photograph 19) and Newbury College. Fisher Hill is also the location of the enclosed Fisher Hill Town Reservoir and the open-air Fisher Hill State Reservoir, both of which are no longer utilized as part of the public water system. Recently the State declared its reservoir to be surplus property and is transferring it to the Town of Brookline to be developed as a park.[1] Concurrently, the Town is conveying the Town Reservoir to a private developer for construction of a mixed-income residential community.[2]

Photograph 18: Reilly ice rink and pool.

Photograph 19: View south on Chestnut Hill Avenue from Reservoir Station entrance.

[1] http://www.wickedlocal.com/brookline/news/x2025176739/Fisher-Hill-site-to-become-Brookline-s-newest-park-eventually

[2] Town of Brookline website, Department of Planning and Community Development, Fisher Hill Project Files

Historic Context

Until the second half of the 19th Century, the study area was rural in character.

Starting in the 1850s, rail service was extended through Brookline into Newton. The railway curved around the north side of Fisher Hill with a stop placed on Chestnut Hill Avenue close to the intersection of Beacon Street. After a century of operation under private railroad companies, this line became part of the Metropolitan Transit Authority, precursor to the MBTA, and is the current D-Branch of the Green Line.

In the 1860s, the Chestnut Hill Reservoir was constructed to provide a single storage facility for Boston's municipal water supply. Parkland was later created around the reservoir.[3]

In the late 1880s, Frederick Law Olmsted was commissioned to redesign Beacon Street through Brookline. Olmsted's plan tripled the width of the street, which had been a 50-foot wide country way, in order to accommodate a branch of the West End Street Railway, now the C-Branch of the Green Line. Olmsted's plan also created a circle at the intersection of Beacon Street and Chestnut Hill Avenue, which thus became Cleveland Circle. [4]

These infrastructure improvements, particularly the introduction of streetcar service along Beacon Street, spurred development of the surrounding neighborhoods and the stretch of Beacon Street closest to Cleveland Circle became a commercial node. In the 1880s, Olmsted laid out the Fisher Hill neighborhood, to the south.[5] The Aberdeen neighborhood, to the north, developed in the 1880s and 1890s.[6]

The Chestnut Hill Reservoir, Fisher Hill, Beacon Street and Strathmore Road are all designated on the National Register of Historic Places. The Aberdeen neighborhood has been designated by the City of Boston as a Local Historic District.

[3] http://www.mass.gov/dcr/parks/metroboston/chesHistory.htm

[4] Cynthia Ridgway Zaitzevsky, "Frederick Law Olmsted and the Boston Park System", Belknap Press, Cambridge MA 1982, page 111.

[5] http://www.brooklinehistoricalsociety.org/history/fisherHill.asp

[6] http://www.bahistory.org

3. Issues

During the stakeholder interviews, the panel heard a number of concerns relating to the current use and potential development of the site and the study area. In addition, as a part of its document review, research and site visit, the panel identified critical issues that would have to be addressed as part of the development process. These issues and concerns are summarized below.

Site Operations

MBTA transit services are a valued amenity for the community and the operations conducted on the site are critical for the MBTA. The site includes maintenance, cleaning and parking facilities that are essential for operations of the Green Line. However, the current use of the site has negative aspects from the point of view of the surrounding community: visual aesthetics of the site are not pleasing; noise of train operations is disturbing; and the use of the adjacent roadways for train access causes traffic disruption.

Circulation and Access

The site configuration is irregular in that it touches on Beacon Street, Chestnut Hill Ave and Strathmore Road but has limited street frontage between these points of access. In addition, the access points on Beacon Street and Chestnut Hill Ave are complicated by the tracks that enter the roadways (photographs 20 and 21).

In general the access and circulation in the study area is inefficient. Multiple curb cuts, fragmented pedestrian infrastructure, tracks in the street, and lack of clear lane designations create chaotic vehicle movements and an incoherent pedestrian experience. On-street parking utilization is high and incidences of illegal parking along Beacon Street were observed.

Photograph 20: Train in Chestnut Hill Avenue.

Photograph 21: Sidewalk on south side of Beacon Street.

Traffic

Traffic conditions around Cleveland Circle are a major concern of the local community. Beacon Street is a major arterial spine through the length of Brookline. Chestnut Hill Avenue connects Boylston Street, Beacon Street, Commonwealth Avenue and Brighton Center. As a result existing pass-through traffic volumes are heavy. Recent traffic analysis indicates that the Cleveland Circle intersection currently operates at a Level of Service "F" during both the a.m. and p.m. peak hours, resulting in long queues of traffic in all directions. (photograph 22)

The community is concerned that additional development would exacerbate congestion. In addition, the community is concerned that changes to Cleveland Circle that could reduce congestion at the intersection would merely push traffic flows into the adjacent neighborhoods.

Streetscape

The existing streetscape in the study area is poor. Linkages between quadrants of Cleveland Circle are difficult to navigate. Sidewalks are of inconsistent width and quality. Bicycle accommodations are lacking.

In addition, the City of Boston has indicated its dissatisfaction with the street edge along the south side of Beacon Street. The existing uses are internally oriented or face off-street surface parking. The street front consists mostly of extensive blank brick walls (photograph 23).

Photograph 22: Traffic in Cleveland Circle; tracks and lack of clear lane designations add to poor traffic flow.

Photograph 23: The south side of Beacon Street is characterized by plain brick facades; a train is visible parked in the entrance to the MBTA site.

Neighborhood Change

The cinema on Chestnut Hill Avenue is closed and is being marketed for sale. The future of the adjacent Applebee's restaurant may also be uncertain. Local residents feel that the commercial vitality of Cleveland Circle is fragile and hope that it will become a more vibrant commercial center such as Coolidge Corner, further east along Beacon Street. They are also concerned that any future development could conflict with existing neighborhood character in density or height. Furthermore, household character of future development is a potential concern because of the existing dynamic between owner-occupant and student-renter populations.

Process and Jurisdictional Complexity

The interplay of the MBTA (a state entity) and the two municipalities, Boston and Brookline, with a boundary that cuts across the site and across Beacon Street creates challenges that have slowed the process of change. Local residents have expressed frustration that several planning studies have been conducted without implementation and/or apparent coordination between Boston and Brookline. Furthermore, residents are skeptical of the MBTA's commitment to addressing community concerns.

4. Opportunities

In addition to the issues described in the previous section, the panel also identified opportunities that it feels are important to highlight.

Site Control

The MBTA site is a sizeable property owned by a single entity with public authority to fund and implement a development plan.

Impetus for Action

The Town of Brookline and the City of Boston have both shown interest in enhancing Cleveland Circle. As evidenced by its request for this TAP, the MBTA is motivated to explore alternative uses for the site. Many of the goals and visions of the three jurisdictions are aligned. In addition, current conditions, such as the closure of the cinema on the west side of Chestnut Hill Avenue, have created the opportunity to more readily redevelop a larger portion of the study area.

Transit Oriented Context

The site is ideally located to build upon existing urban form. Bisecting Brookline, Beacon Street is a traditional streetcar boulevard connecting a series of transit-oriented commercial nodes (Audubon Circle, Coolidge Corner, Washington Square, Cleveland Circle). At Cleveland Circle, the presence of three branches of the Green Line in close proximity is a significant opportunity for transit-oriented-development.

Precedent

The MBTA has attempted similar redevelopment projects. For example, the Ashmont Station was recently reconfigured with new subway platforms, lobbies, bus way and trolley way in such a way to permit a portion of the site to be developed with a new building featuring 116 units of mixed income housing and street front retail (Exhibit 2). This project was accomplished through a public-private partnership and with important community input. The MBTA can draw lessons from this, and other projects, to inform its decision-making at the Cleveland Circle/ Reservoir Station site.

Exhibit 2: Rendering of new Ashmont Station and associated development. (Source: MBTA)

5. Alternatives

The future of MBTA operations defines the nature of alternatives for the site. How or where the current uses are accommodated is therefore the starting point for considering future uses.

If there were to be no change to current MBTA operations, any future development would have to be accommodated through air-rights development on a deck built over the existing facility. Initial analysis indicates that the construction cost premium for an elevated deck is prohibitive, mostly because of limitations on construction activity imposed by the need to maintain unimpeded MBTA activities during construction, the site constraints on construction staging and storage, and design features necessary to build over an active rail line.

The panel estimated that a deck over the MBTA facilities would cost approximately $400 per square foot. Regardless of the use type, in order to make development economically viable on a base at that cost, the new structure would have to be somewhat in excess of 8 stories. This assumes the land would be contributed by the MBTA at no cost and the value of the development would support a land use of $25-50 per square foot of leasable space.

Development at this scale would be incompatible with the desires of the community and the policy vision of Boston and Brookline. Development at the necessary height to achieve economic returns from air rights would exceed existing regulatory constraints and would not fit within the established urban context. As such, the panel does not recommend a pure air rights project.

Alternatively, MBTA operations could be reconfigured or relocated, creating developable space on the site not requiring a deck. Additionally, the MBTA could assemble adjacent parcels, such as that at the corner of Beacon Street and Chestnut Hill Avenue, which the MBTA property wraps around, and/or the Circle Cinema site across Chestnut Hill Avenue, in order to create enough site area for a viable project.

If the MBTA was able to reposition existing operations and acquire adjacent parcels, development could take a more sophisticated form. Multiple structures with different uses could be accommodated within a framework of streets or alleys that would connect Beacon Street with a new Reservoir Station (Exhibits 3 and 4). The panel also considered the possibility of redesigning Cleveland Circle and Beacon Street in order to improve traffic flow and reduce conflict between automobiles and trains. Potential redesigns could feature a submerged station at the end of the C-Branch, allowing for physical separation of trains and automobiles and more substantial station amenities to be built (Exhibit 5).

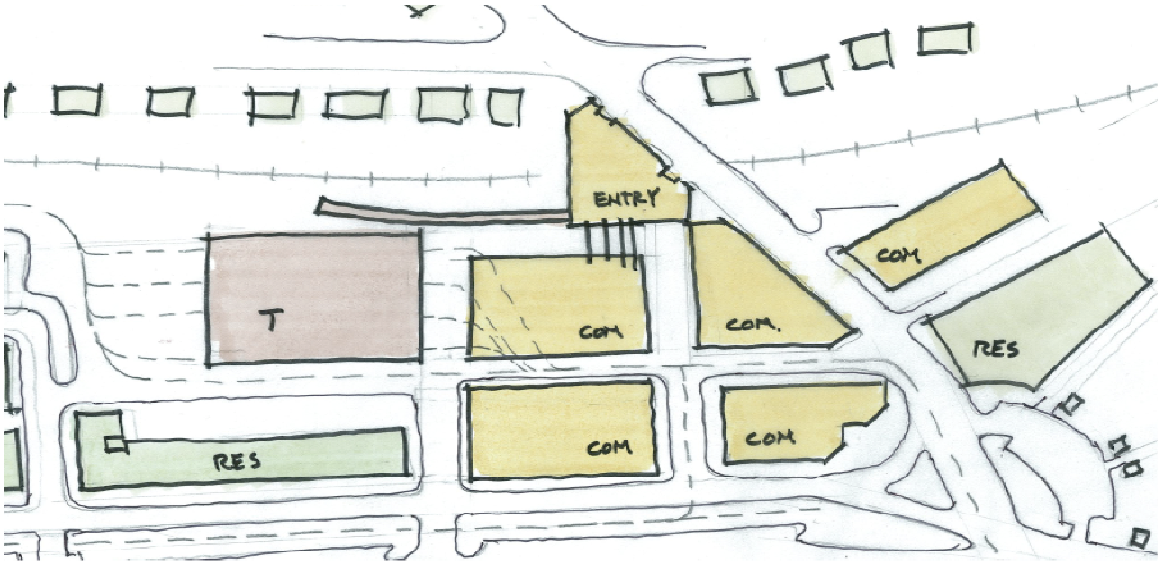

Exhibit 3: Conceptual plan for site and adjacent properties with modification of MBTA maintenance facility

Exhibit 4: Conceptual plan for site and adjacent properties with relocation of MBTA maintenance facility

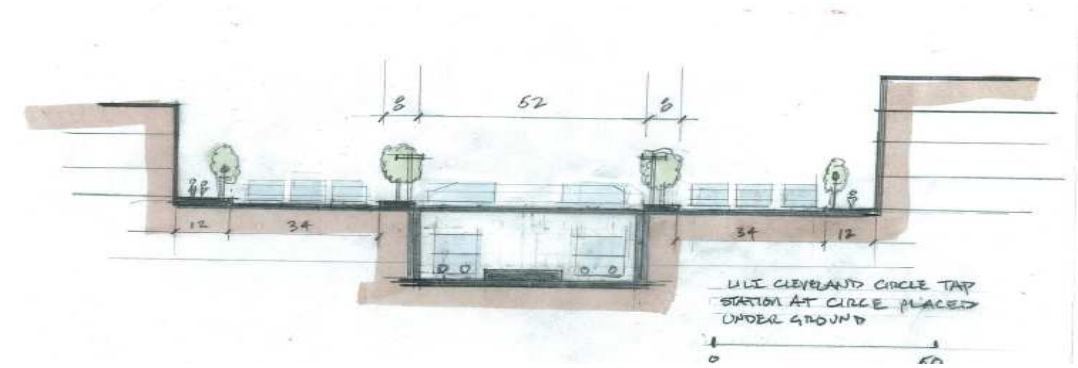

Exhibit 5: Cross section of potential underground station for Cleveland Circle

6. Recommendations

After considering the issues, opportunities and alternatives outlined previously, the panel developed a set of recommendations in reference to the MBTA's use of the site and also for the MBTA, City of Boston and Town of Brookline in assessing the future of the study area.

Inter-Jurisdictional Cooperation

While past studies have developed strong design concepts, they have not developed new processes to effect change. The panel believes that past studies of Cleveland Circle have not been successfully implemented because the focus has been too narrow and larger issues of vision and process have not been adequately addressed. The panel believes that in order to unlock the full potential for redevelopment of the study area, obstacles to inter-jurisdictional cooperation must be addressed. Cooperation and coordination between the MBTA, the City of Boston and the Town of Brookline is essential. Specifically there needs to be a new mechanism to deal with cross-jurisdictional planning, infrastructure and entitlement and to coordinate development efforts through one area master plan. The situation calls for oversight by a 'higher power' than the municipal level. As such the panel recommends the creation of a jointly-sponsored master planning process with Boston, MBTA/Mass DOT, and Brookline that would address planning, permitting, governance and cost/revenue sharing.

Design Principles

The community representatives who were interviewed indicated preferences for a mixed-use project that provided amenities to the local community without generating substantial new impacts. While the panel discussed different potential land uses, no specific use was selected as the preferred alternative. Rather, the panel felt that any proposed uses should conform to the following set of principles:

- Development plans should be transit-oriented and seek to minimize traffic impact on Cleveland Circle, which already operates at a Level of Service F.

- Proposed uses should connect the site with the community and provide amenities to exiting residents without significant burdens.

- MBTA passenger experience should be enhanced, including better waiting facilities at the Cleveland Circle Station and greater connectivity between Cleveland Circle and Reservoir Stations.

- Neighborhood character and historic context should not be impaired and massing and height at street edge should be consistent.

Cleveland Circle

Critical to successful redevelopment of the study area is improved streetscape and circulation. Streetscape improvement plans for Cleveland Circle have been prepared in the past. The panel supports the implementation of improvements recommended in previous studies, such as those put forth in the Cleveland Circle Streetscape Plan prepared in 2002 by the Aberdeen & Reservoir Civic Association.

The panel does recommend a specific solution to improve Cleveland Circle. The pedestrian elements should be expanded into the circle, narrowing the traffic lanes (Exhibit 6). In this way, travel paths will be more clearly defined, allowing traffic to flow more smoothly and enhancing the identity of Cleveland Circle through more appealing pedestrian space.

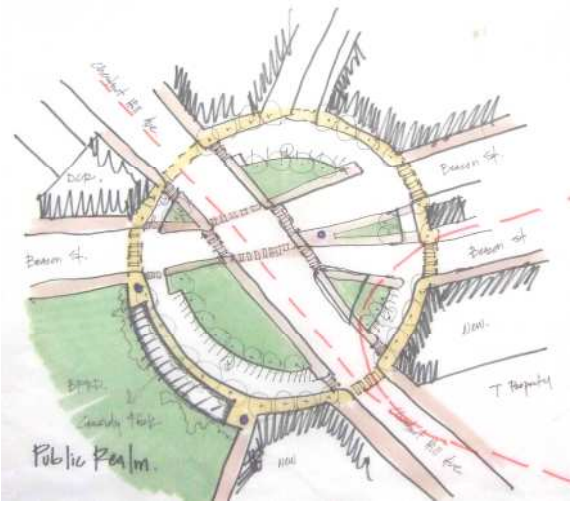

Exhibit 6: Proposed redesign of Cleveland Circle.

Site Modification

The panel feels that the MBTA should conduct a detailed analysis of the function and configuration of the operations currently at the site in order to determine the feasibility of modification or relocation, including relocation of the tracks that pass from the site through Cleveland Circle.

The MBTA should study the implications for land values, operational efficiencies and other benefits to the transit system that would result from modification of the existing transit infrastructure.

Master Planning

To implement a Master Plan for the study area, the MBTA should consider ways to acquire adjacent property or in some way bundle the development rights to its property with the adjacent properties on Beacon Street and/or the cinema site across Chestnut Hill Avenue. This would allow the site area to accommodate a master-planned transit-oriented development.

By following the design principles outlined above and working in coordination with Brookline and Boston, the MBTA could execute an integrated development plan such as that show in Exhibit 7 which would generate transit-usage and non-fare revenue while enhancing the indentity and character of Cleveland Circle.

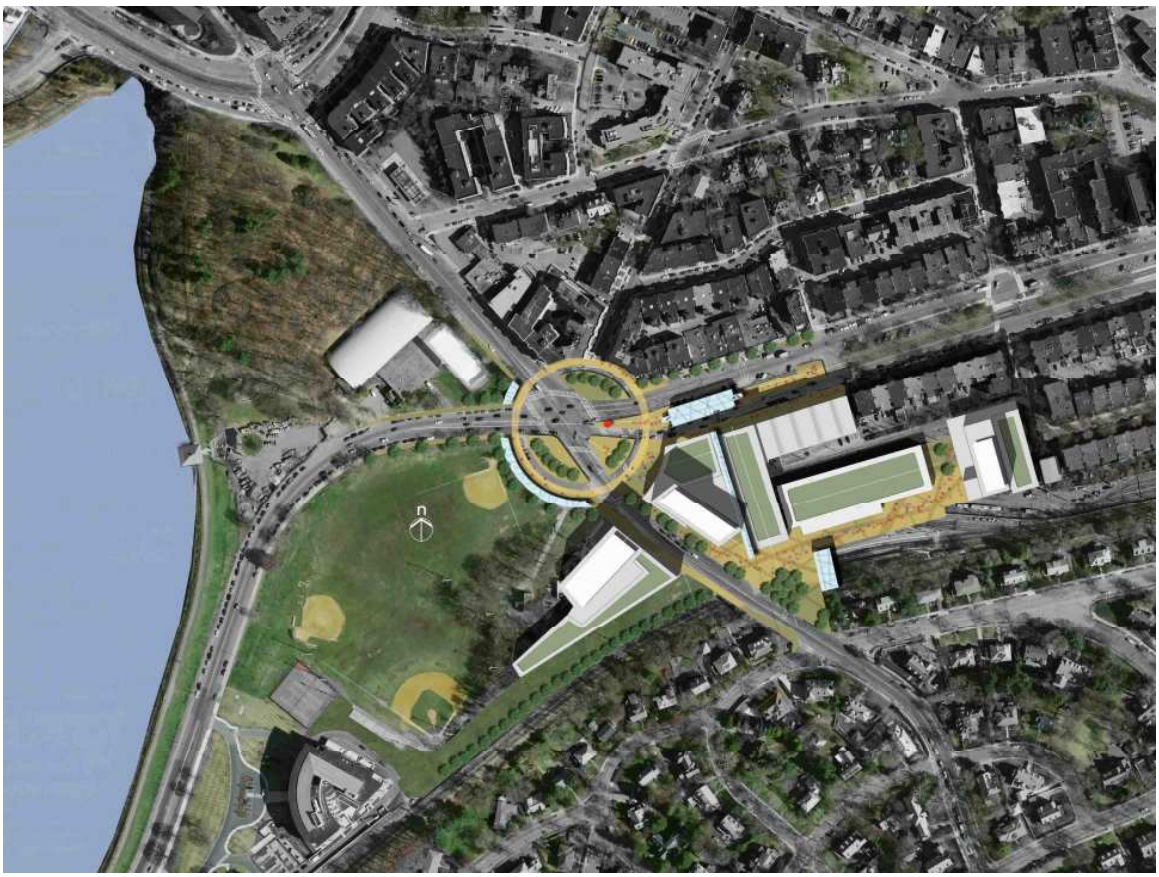

Exhibit 7: Concept plan of master-planned redevelopment of the site and adjacent parcels.