

# Charing Cross

1501 Commonwealth Avenue  
Boston, MA



## Project Notification Form

Submitted Pursuant to Article 80 of the Boston Zoning Code

Submitted to:

Boston Redevelopment Authority  
One City Hall Square  
Boston, Massachusetts 02201

by:

The Brighton Partnership for Community Reinvestment, LLC  
288 Newbury Street, Suite 308  
Boston, MA 02115

23 February 2012

# The Brighton Partnership for Community Reinvestment, LLC

*a Joint Venture of*  
**Diamond Sinacori, LLC & Hart Development Associates**  
437 Columbus Avenue · Boston, Massachusetts 02116  
617-369-5650 (tel) · 617-369-5652 (fax)  
[www.believeinbrighton.com](http://www.believeinbrighton.com)

February 21, 2012

Peter Meade, Director  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201-1007

Re: Project Notification Form  
1501 Commonwealth Avenue – ‘Charing Cross’

Dear Mr. Meade:

Pursuant to Article 80 of the Zoning Code of the City of Boston, we are submitting this Project Notification Form in connection with the proposed redevelopment of the former Provident Nursing Home, 1501 Commonwealth Avenue in Brighton, into a mixed-income residential complex with accessory parking.

The property is a gateway site, and it presents a unique opportunity to provide market rate and much needed affordable housing for the City. *Charing Cross* promises to be one of the best new buildings in this part of the City in the past half century, and will complement the best of Commonwealth Avenue’s historic fabric.

The proposed project will contain approximately 65,000 gross square feet, 55 residential condominium units, and will include a residential parking garage. The Community Benefits package includes, among other things, streetscape improvements on Commonwealth Avenue, a donation to beautify adjacent Ringer Park, the enhancement of the computer center at the nearby Commonwealth housing development, and the creation of both construction and property management apprenticeship programs for area youths.

The Project will exceed the City’s affordable housing requirements, and will require zoning relief.

We look forward to working with you and the BRA staff on this very exciting project.

Sincerely,

DR Hart

Daniel R. Hart

For the Brighton Partnership for Community Reinvestment, LLC

cc: Heather Campisano, BRA  
Lance Campbell, BRA  
Evelyn Friedman, DND  
John Feuerbach, DND  
Merrill Diamond, BPCR  
Nicholas Sinacori, BPCR

## **TABLE OF CONTENTS**

### **1.0 GENERAL INFORMATION**

### **2.0 ENVIRONMENTAL PROTECTION COMPONENT**

### **3.0 URBAN DESIGN**

### **4.0 BUILDING DESIGN**

### **5.0 APPENDIX**

Appendix 1: Designation from the Department of Neighborhood Development

Appendix 2: ALTA Survey

Appendix 3: Transportation Report

Appendix 4: Geotechnical Report

Appendix 5: Environmental Report

Appendix 6: Architectural Design

Appendix 7: Contextual Photos

Appendix 8: Preliminary Sustainability Checklist

Appendix 9: Inspectional Services Department Letter

Appendix 10: Boston Redevelopment Authority Letter of Intent & Project Information



## **1.0 GENERAL INFORMATION**

### **1.1 Introduction**

The Brighton Partnership for Community Reinvestment, a joint venture of Diamond Sinacori, LLC and Hart Development Associates, is proposing to redevelop the former Provident Nursing Home located at 1501 Commonwealth Avenue in the Brighton section of Boston, MA, into *Charing Cross*, a 55 unit, mixed-income residential complex with accessory parking. The project will include both market rate condominiums (37) and income-restricted condominiums (18). As such, presents a unique opportunity to provide much needed new housing units for this part of the City of Boston.

This property is located on a highly visible site near the crest of a hill that affords skyline views of Boston and the surrounding area. This location, on the north side of Commonwealth Avenue along the 1500 block, is an eclectic mix of uses and building typologies. Located in a grouping of non-residential, institutional structures, *Charing Cross* is flanked by the Evergreen Institute to the South and Brighton Marine to the North. An MBTA stop is located directly across the street from the project.

*Charing Cross* will be a 4-story building that will contain approximately 65,000 gross square feet. It will also include a parking garage for approximately 55 vehicles for residential use. Designed in the English Jacobean style that typifies the best of the historic architectural fabric of this section of Commonwealth Avenue, this signature building will be a unique and contextual piece of architecture of a type not constructed in the greater Boston area for the past seventy years.

The Community Benefits package that accompanied the successful RFP Response encompasses streetscape improvements on Commonwealth Avenue, improvements to adjacent Ringer Park, and other types of benefits for the host community. In addition, the developers have committed to creating an Apprenticeship program for both the construction and the property management of *Charing Cross*.

### **1.2 Development Team**

The Brighton Partnership for Community Reinvestment (“BPCR”) has assembled a development team of firms and individuals that have demonstrated, over almost three decades, the technical and financial ability to complete a project of this type.

The following are the key members of our team, accompanied by some general information that speaks directly to our experience and capacity to develop an affordable, mixed-income condominium development.

#### **CO-DEVELOPERS:**

##### **Diamond Sinacori, LLC**

Diamond/Sinacori is the successor firm to Parencorp, a real estate development firm founded in 1978 by two architects, Merrill H. Diamond and the late Gordon I. Hurwitz. Almost from its

inception, the firm has been recognized nationally for taking a different approach to real estate development. In an environment where the emphasis is usually only on the bottom line, Diamond/Sinacori has become known for both the appropriateness of its architecture, its creativity in its marketing approach, and for involving municipal and neighborhood groups in the development process. While the firm has been honored for its business acumen, it is most proud of being cited for sensitivity to the un-built environment and the conservation efforts that mark many Diamond/Sinacori projects. Of note, founding partner, Merrill H. Diamond, has previously served as Chair of the Brookline Conservation Commission.

While Diamond/Sinacori has a wide range of experience in various housing types spanning both new construction and renovation, the firm boasts especially strong credentials in the area of historic preservation and adaptive re-use. In that regard, Merrill H. Diamond formerly served as a Commissioner of the Massachusetts Historical Commission and is a recent member of the Board of Directors of Preservation Mass. Seventy-five percent of the firm's work over the past two decades has featured historic preservation and adaptive re-use, either in whole or in part. The Waterworks at Chestnut Hill is one of the firm's current residential projects.

Diamond/Sinacori's corporate honors and Merrill H. Diamond's personal honors include the following: "Entrepreneur of the Year" awarded by *Venture Magazine* and Ernst & Young, Inc.; "Developer of the Year," awarded by the Condominium Associations Institute; twice named "One of America's fastest growing companies" by *Inc. Magazine*; and numerous awards for both design and marketing from *Builder Magazine*. In addition, Merrill H. Diamond and his former partner were named "Two of America's Most Valuable People," by the nation's national newspaper, *USA Today*.

### **Hart Development Associates**

Hart Development Associates is a full service real estate development and consulting firm based in Boston, Massachusetts. Led by Daniel R. Hart, the firm leverages its principals' vast and varied experience in a myriad of transaction and asset types. The firm prides itself in its proven ability to an integrated and coordinated approach to real estate development from project feasibility and assessment through punch list.

Mr. Hart previously served as Director of Development for EA Fish Associates, a prominent, multifaceted real estate development firm, where he was involved with the development of over \$714,000,000 of real estate, totaling 2,454 units of housing, 71,000 square feet of commercial space, and 1,403 structured parking spaces.

Mr. Hart is a graduate of Boston College High School and Bowdoin College where he earned a dual degree in History and Government & Legal Studies. He has continued his education in Real Estate Finance and Development at Harvard University as well as at Boston University's Real Estate Studies Program. Additionally, he studied Construction Management at the Wentworth Institute of Technology. He was named to the Mayor Thomas Menino's Housing Advisory Committee in the Fall of 2003. Prior to working at EA Fish Associates of Boston, Mr. Hart was employed by Suffolk Construction Co, Inc. of Boston.

## **ARCHITECT:**

### **Tise Design Associates, Inc.**

Tise Design Associates has earned a national reputation as a unique architectural and planning resource, providing comprehensive and imaginative design services to our clients. Over the past 30 years the award winning firm has evolved into an internationally recognized group of professionals who focus on creative solutions to complex design challenges and the interactive processes that result in consensus, feasibility and programmatic appropriateness.

Stephen Tise started his practice in 1976 with the desire to create a design studio servicing clients who share his unique goals for the built environment. His strength as an architectural designer is evidenced in many projects that exhibit unique design and technical solutions to complex design problems. The firm limits its commissions in order to enable Mr. Tise to personally oversee all work and the office enjoys the support of a core group of enlightened clients who share TDA's commitment to achieving the highest level of design. Steve's reputation in interior design has allowed the firm to undertake extensive interior and space planning contracts. The firm employs sustainable design and green building practices in our work and utilizes state of the art visioning software, innovative US and European building systems and Smart Growth development techniques.

## **GREEN CONSULTANT:**

### **Hickory Consortium**

The Hickory Consortium provides professional services on building projects throughout the US with a focus on the Northeast. Their experts bring to Hickory the experience of over 8000 units of housing, including single- and multi-family; mid-rise, urban and rural; affordable and high-end; new and rehab. Their work is currently focused on affordable housing and transit-oriented development (TOD). They also consult on light commercial buildings and other small-scale projects including administrative centers, civic buildings, and organizational headquarters.

The Hickory Consortium has always been at the leading edge of design and construction methods and techniques. Their R&D background with building materials and systems manufacturers, as well as with national building research laboratories, puts them at the forefront of organizations that can demonstrate these practically. Catalyzing sustainable building is a continuum of efforts along the spectrum of the building process that must eventually result in built projects. These projects must teach, must be replicable, and must have data that can be shared.

Their awards include the following: 2003 Northeast Green Building Award; 2001 Northeast Green Building Award; 2000 NAHB Energy Value Housing Award; 2000 BSA Excellence in Environmental Design Award; 2000 Leadership in Energy Efficiency Award; 1999 NAHB Energy Value Housing Award; 1999 Sustainable Business Award; 1998 U.S. EPA Energy Star Home Designation; 1998 AIA Earth Day Top Ten Award; 1998 Green Seal Designation; 1998 NAHB Energy Value Housing Award; and the 1997 U.S. EPA Energy Star Home Designation.

## **CIVIL ENGINEER:**

### **Nitsch Engineering**

Nitsch Engineering specializes in providing civil engineering, land surveying, transportation engineering, planning, and GIS services. Their engineering work includes designing and consulting on the sustainable site aspects of building projects. They have worked with academic clients, developers, corporate and institutional owners, public agencies, architects, and other design professionals on major private development and public infrastructure projects in 13 states and five countries. Founded in 1989 as Judith Nitsch Engineering, the firm now has over 65 employees.

Nitsch Engineering is the largest Woman-Owned Business Enterprise (WBE) engineering firm in Massachusetts, and is also certified as a WBE in New York, Pennsylvania, and Virginia.

## **TRAFFIC ENGINEER:**

### **Howard/Stein-Hudson Associates, Inc.**

Howard/Stein-Hudson Associates, Inc. (HSH), is a transportation consulting firm experienced in advancing complex projects on behalf of clients. The women owned corporation is certified as a WBE and DBE by numerous states and regional authorities. HSH was founded in Boston by Jane Howard and Kathleen E. Stein in 1987.

Nationally recognized for its creative, multidisciplinary, problem-solving approach, the firm works on projects in more than 25 states across the U.S., HSH provides regional and municipal planning, traffic engineering, roadway design and civil engineering, land development and institutional planning, and public involvement for public agencies, institutions, design and construction firms, developers, corporations, law firms, and environmental consultants. HSH worked with the principals of Diamond Sinacori, LLC and Hart Development Associates on The Waterworks at Chestnut Hill, in Brighton, Massachusetts.

### **1.3 Evidence of Site Control**

The Brighton Partnership for Community Reinvestment, LLC was designated by the City of Boston, Department of Neighborhood Development. Evidence of the same is included in Appendix A.

### **1.4 Current Zoning**

The site is located in a "MFR-1" subdistrict of the Allston-Brighton Neighborhood District. The multifamily use that we have proposed for 1501 Commonwealth Avenue is an allowed use under the code, though the proposal would require relief for other provisions. The site is also adjacent to the Greenbelt Protection Overlay District.

## 1.5 Project Benefits

We believe that this project is not just about 1501 Commonwealth Avenue; it's about the impacted neighborhood and, indeed, Brighton itself.

Accordingly, we have proposed a series of significant Community Benefits aimed at improving the general area, ranging far beyond the development site itself.

These include the following:

- \$50,000 to address the deplorable condition of the Commonwealth Avenue gradient across from the site;
- \$25,000 to assist in the effort to revitalize Ringer Park.
- \$25,000 to enhance the computer lab at the Commonwealth public housing development;
- A construction and management apprenticeship program for residents of the Commonwealth public housing development;

## 1.6 Public Participation/Community Outreach

June 6, 2006	1st meeting, introduction of the site, general discussion, use/ design
Oct 18, 2006	2nd meeting, reviewed use/ design, went over draft RFP
May 31, 2007	Developer Presentation - 4 eligible applicants
July 31, 2007	Community review of applications, discussion of next step that led to rescinding the RFP on 3/20/08 Dev. Presentation (all eligible applicants) sponsored by DND
May 1, 2008	Developer Presentation at BAIA
March 4, 2010	Developer Presentation at BAIA

## **2.0 ENVIRONMENTAL PROTECTION COMPONENT**

### **Existing Conditions and Proposed Development**

Fronting onto Commonwealth Avenue to the east, the approximately 31,319 square foot subject site is bounded by the Brighton Marine Health Center to the north, Kindred Hospital to the south, and wooded land to the west. The subject site is currently occupied by a vacant 2-story, concrete/masonry building that was formerly used as a nursing home. A paved surface parking lot is located to the north of the existing building. A grassed area is located behind the building on the south side.

Existing grade along the eastern portion of the site adjacent to Commonwealth Avenue slopes down from south to north from approximately Elevation +140 to Elevation +121. Within the paved parking area, existing grade slopes upward from east to west from approximately Elevation +121 to Elevation +128. Behind the building, existing grade slopes steeply upward from approximately Elevation +137 to Elevation +147.

A single level parking structure is located on the abutting property to the south. Exposed concrete columns that support the structure were observed to bear on a bedrock outcropping that extends onto the southern portion of the site, adjacent to the southwest corner of the existing site building.

It is understood that the proposed development includes demolition of the existing structure and construction of a new 4-story building containing a level of at-grade parking that will closely approximate the existing grades along Commonwealth Avenue and four levels of residential space above.

It is further understood that the proposed building will contain no below-grade space.

### **Investigation Procedures**

Our preliminary subsurface investigation consisting of three (3) soil borings was conducted at the site on April 2, 2009. The boreholes were performed by Carr-Dee Corp. of Medford, Massachusetts under contract to McPhail Associates, Inc. Logs of the soil borings are contained in the Appendix. The locations of the explorations are as indicated on the enclosed Subsurface Exploration Plan, Figure 2 which is based upon a plan entitled "ALTA/ACSM Land Title Survey, 1501 Commonwealth Avenue, Boston, Mass." prepared by Feldman Professional Land Surveyors and dated December 2008.

The subsurface explorations were monitored by a representative of McPhail Associates, Inc. who performed field layout, prepared field logs, obtained and visually classified soil samples, monitored groundwater conditions in the completed explorations and the groundwater observation wells installed at the site, made minor adjustments to the exploration locations and determined the required exploration depths based upon the actual subsurface conditions encountered.

Field locations of the subsurface explorations were determined by taping from existing site features identified on the above referenced survey plan. The existing ground surface elevation at each location was determined by a level survey performed by McPhail Associates, Inc. utilizing vertical control provided on the referenced survey plan.

The soil borings completed within the paved parking area (borings B-2 and B-3) were performed using a truck-mounted drill rig and were advanced utilizing 2-1/4-inch diameter hollow stem augers. Boring B-1, completed within the landscaped area of the site along Commonwealth Avenue, was completed with portable drilling equipment. Standard 1-3/8-inch J.D. split-spoon samples and standard penetration tests were generally obtained continuously with depth in accordance with the standard procedures described in ASTM D1586.

To permit monitoring of groundwater levels at the site boring B-3 was finished as a groundwater observation well.

### **Laboratory Testing**

At the completion of the field work, the soil samples were transported to our laboratory for more detailed classification, analyses and testing. The laboratory testing consisted of sieve analyses to obtain representative grain size distributions of samples of the fill and glacial till deposits. Laboratory test procedures were in general accordance with applicable ASTM Standards. Results of the laboratory testing conducted on samples of the fill and glacial till deposits are presented in Figures 3 and 4, respectively.

### **Subsurface Conditions**

Detailed descriptions of the subsurface conditions encountered within each of the boreholes are presented on the boring logs contained in Appendix B. Following is a discussion of the generalized subsurface conditions across the site which are inferred primarily from the recent explorations, and also from our knowledge of local site geology, foundation design and construction experience in the Brighton area of Boston.

The explorations indicate that the site is covered by surface treatments consisting of either a 6-inch thick layer of topsoil or a 2-inch thickness of asphalt pavement. Beneath the surface treatments, the project site is blanketed by a loose to dense, brown fill material that generally consists of a silty sand and gravel containing trace amounts of brick, concrete, ash and cinders. The fill varied in thickness from 2 feet at the west end of the site (boring B-2) up to 15 feet at the east end of the site (boring B-3). Underlying the fill, the explorations encountered a natural deposit of glacial till at depths of 2 feet and 15 feet below ground surface in borings B-2 and B-3, respectively. The glacial till consisted of a very dense, light brown, silty sand and gravel with some cobbles. Beneath the glacial till in borings B-2 and B-3, and directly beneath the fill in boring B-1, the explorations encountered refusal on what is believed to be the underlying bedrock. Refusal was encountered at depths of 8.3 feet, 8 feet, and 18.5 feet, corresponding to Elevation +128.5, Elevation +119.0, and Elevation +106.0, in borings B-1, B-2, and B-3, respectively.

The stabilized groundwater level within the observation well installed in completed borehole B-3 was observed at 14 feet below the existing ground surface, corresponding to Elevation +110.5. It is anticipated that future groundwater levels across the site may vary from those reported herein due to factors such as normal seasonal changes, periods of heavy precipitation, and alterations of existing drainage patterns. A Groundwater Monitoring Report for the observation well installed in boring B-3 is presented in the Appendix.

### **Preliminary Foundation Design Recommendations**

Based on our current understanding of the schematic design of the proposed structure and the subsurface soil and groundwater conditions encountered during our recent subsurface exploration program, it is recommended that foundation support of the proposed buildings transfer the structural loads through the unsuitable fill deposit to the underlying glacial till or bedrock deposits that are present across the project site. Utilization of a design bearing pressure of 4 tons per square-foot for foundations bearing on either the natural very dense glacial till or bedrock deposits is recommended for preliminary design purposes. The allowable design bearing pressure may be modified during the final design based upon additional subsurface information. Based on the preliminary subsurface investigations, for purposes of determining the total lateral seismic force or base shear for earthquake design, the site of the proposed building is considered to be Site Class C as defined in Section 1615.0 of the Massachusetts State Building Code (Seventh Edition).

The selection of the specific foundation system for support of the proposed structure is highly dependent upon the elevation of the lowest level floor slab of the proposed building in relation to the elevation of the existing grades, given the variability in the anticipated depth to the bearing stratum. Based upon the subsurface conditions indicated by the preliminary subsurface investigations, the site appears to be suited for utilization of a conventional spread footing foundation system in conjunction with slab-on-grade construction. However, based upon the observed soil conditions as described above, over-excavation and replacement of unsuitable fill soils is anticipated for foundation construction, in particular, within the eastern and northeast portions of the site where the fill extends to a depths of 8 to 15 feet below existing grade. It is anticipated that lean concrete or pier foundations could be utilized to extend foundation support to the bearing surface as opposed to the over-excavation and replacement of structural fill to the design bottom of footing elevation. Given that no below-grade space is proposed, perimeter and under-slab drainage is not recommended.

### **Final Comments**

Based on our current understanding of the project scope, a final subsurface exploration program is recommended to further defined the extent of over-excavation of unsuitable fill that will be required given the variable depth of fill present at the site, and in consideration of the proposed lowest level slab elevations which have not yet been determined. In addition, a final foundation engineering report should be prepared in conjunction with the final subsurface exploration program which provides final foundation recommendations based on the specific project design requirements.



## **Hazardous Materials/Solid Waste**

A Phase I Environmental Site Assessment has been completed in conformance with the ASTM E 1527-05 standard for the property located at 1501 Commonwealth Avenue in Brighton section of Boston, Massachusetts. The purpose of this report was to document the possible release of oil and/or hazardous materials, as defined in Massachusetts General Laws Chapter 21 E and the Massachusetts Contingency Plan, 310 CMR 40.0000 and to identify the potential presence of Recognized Environmental Conditions as defined by the ASTM 1527-05 standard.

Our assessment included a review of the site history relative to the possible presence of oil and/or hazardous materials, a visual reconnaissance of the subject site and the surrounding areas, a review of readily available city, state and federal records including a DEP file review, and a review of a database search completed by EDR Sanborn, Inc. of Milford, Connecticut. In addition, a subsurface investigation performed primarily for geotechnical purposes included reviewing and screening soil samples obtained from the borings for Total Volatile Organic Compounds (TVOCs). Fronting onto Commonwealth Avenue to the east, the subject site is bounded by the Brighton Marine Health Center to the north, Kindred Hospital to the south, and wooded land to the west. The subject site occupies a plan area of approximately 31,715 square feet and is currently occupied by a vacant 2-story, concrete and masonry building which was formerly utilized as a nursing home.

The results of our review of historical records indicate that prior to development in the early 1960s, the subject site was undeveloped land. Since that time, it is understood that the subject site building had been utilized as a rest home until 2005. Further, it is understood that since 2005 the subject site building has remained vacant. However, it is understood that the City of Boston Department of Neighborhood Development, allows occasional use of the subject site building by the Boston Fire Department. The property located to the north of the subject site has been occupied by a health center and associated medical officer quarters since at least 1950. The property located to the west of the subject site has remained undeveloped. The property located to the south of the subject site has been occupied by an office building since at least 1989. The results of our review of historical records indicated that there are no threats of impact to the subject site, and no RECs were identified with respect to historical usage of the subject site and surrounding properties.

Our observations of readily observable areas of the subject site and surrounding properties did not disclose evidence of a release of oil or hazardous materials, or the presence of RECs at the time of our site visit. However, we recommend that the locked wooden box labeled "Infectious Waste" and "Biohazard" observed within a storage room and containers observed within the elevator room and storage room in the eastern portion of the basement and their contents be properly disposed prior to the demolition of the existing building. A review of readily available records on the City of Boston online databases and municipal offices did not indicate the presence of RECs with respect to the subject site.

Based on our review of the DEP's on-line database of MCP sites, the subject site is not a DEP listed MCP site, nor was information identified in the available databases searched by EDR that indicated the presence of an REC.

Four (4) listed MCP release sites located within 0.5 miles of the subject site were evaluated to determine whether they could potentially pose a threat to the subject site. Files for these four (4) sites were examined at the DEP's Northeast Regional office for information relative to their potential to impact the subject property. Based on our review of readily available information at the DEP's Northeast Regional office and/or DEP's on-line MCP site database, the four (4) release sites are not considered likely to pose a threat to the subject property based on the location of the releases, the response actions completed, and/or given that a Class A was filed for each release, indicating that a Permanent Solution was achieved and a Condition of No Significant Risk exists. Accordingly, the four (4) release sites are not considered RECs with respect to the subject site.

The subsurface investigation performed at the subject site was based, in part, on gathering information relating to the proposed development of the subject site as part of a preliminary geotechnical subsurface investigation. This investigation included the performance of three (3) borings, one (1) of which was completed as groundwater monitoring well. Topsoil and asphalt surface treatments at the subject site were underlain by granular fill material containing trace amounts of brick, glass, ash and cinders that varied from 2 to 15 feet in thickness. Underlying the fill, the explorations encountered a natural deposit of very dense glacial till and/or bedrock. Where encountered, the glacial till varied from 3.5 to 6 feet in thickness. The stabilized groundwater level within the observation well installed in completed borehole B-3 was observed at 14 feet below the existing ground surface.

A total of 11 soil samples obtained from the borings were screened for the presence of Total Volatile Organic Compounds (TVOCs). The TVOC results encountered within the soil samples obtained from the borings were all 0 parts per million (ppm), or equivalent to ambient air background levels. Further, these samples did not exhibit the presence of visual or olfactory evidence of OHM. In the absence of visual or olfactory indications of the presence of OHM, TVOC results below 10 ppm are not considered likely to indicate the presence of a release of OHM. Therefore, RECs were not identified in soil during the subsurface investigation.

The proposed preliminary plans for development of the subject site is understood to include demolition of the existing structure and construction of a 4-story residential building with two levels of at-grade parking that will closely approximate the existing grades along Commonwealth Avenue. Therefore, pursuant to the Massachusetts Oil and Hazardous Materials Release Prevention and Response Act (MGL Chapter 21 E) and pursuant to the Massachusetts Contingency Plan (310 CMR 40.00), if off-site disposal of excess excavated soil from future development of the subject site becomes necessary, chemical analysis of the excess soil will be required in order to conform with the regulations and policies of the Department of Environmental Protection (DEP).

In addition, in consideration of the potential on-site reuse of fill material that was observed to contain ash and cinder, chemical analysis of the fill is recommended to assess the potential requirement for providing a 1-foot thickness of clean soil at finish grade in lawn and landscaped areas as a protective measure to future residents.

### 3.0 URBAN DESIGN

The North side of Commonwealth Avenue along the 1500 block is a eclectic mix of uses and building typologies. 1501 is located in a grouping of non-residential, institutional structures, and is flanked by the Evergreen Institute to the South and Boston Marine to the North. The Evergreen Institute structure dominates the streetscape in this location, and is isolated as a visual icon in this neighborhood.

Due to its proximity to the MBTA, the lack of residential abutters, and the existence of large structures on this side of Commonwealth Avenue, we feel that the 1501 site is ideally suited to embrace a signature piece of architecture; however -- the relative isolation of the site notwithstanding -- the design of 1501 should be contextual in terms of the older residential stock that typifies Commonwealth Avenue.

This represents a sea change from our earlier submission that put forth a building that could “conceal” the adjacent Evergreen Institute, a tall building that is especially undistinguished from an architectural standpoint. However, with the current RFP restricting height, we feel that the appropriate solution is one that becomes a good neighbor to both the abutters and to the community as a whole.

What do we mean by being “a good neighbor?” Simply put, we have designed a building that is pleasant to look at from any vantage point (including from the buildings across the street), and one that fits relatively seamlessly into the overall fabric of Commonwealth Avenue. To the extent that this fabric is comprised of older residential buildings, we wanted a building that was also obviously residential in nature.

That said, however, we are also aware of the fact that most, if not all of the traditional residential stock on both sides of Commonwealth Avenue are not especially handsome examples of period architecture; they are connected banks of apartment buildings that were built by speculators during the first half of the 20<sup>th</sup> century. Their primary attribute is that they were constructed in an age when even mundane architecture compared favorably to some of the most expensive architecture of our own era. However, there is an enormous difference between the residential buildings on Beacon Street in Brookline and those in Back Bay where the level of design is much higher than that of the older buildings along Commonwealth Avenue.

Our charge to our architects, then, was to create something that would both fit within the overall context of Commonwealth Avenue, AND to raise the bar in terms of design. We believe that this charge has been answered and the result is a beautiful residential structure that “feels” right in a traditional environment and is a signature piece of architecture in its own right. Named *Charing Cross*, our building is evocative of the Jacobean architectural style, an early phase of English Renaissance architecture and decoration that formed a transition between the Elizabethan and the pure Renaissance style later introduced by Inigo Jones . First evidenced in the early 17th century, examples of the Jacobean style of architecture can be found in abundance in this part of the Commonwealth (e.g. The Paine Mansion, Heath Street, Chestnut Hill; restored by Merrill H. Diamond in 1990).

## 4.0 BUILDING DESIGN

Our proposal for 1501 Commonwealth Avenue is for a four story residential structure with one level of at-grade parking that follow the slope of the land. The proposed structure is approximately 52' (to the parapet) adjacent to the Evergreen Institute, which is estimated at 93' adjacent to the 1501 property boundary. Our design drops down to a height of 27' adjacent to the Brighton Marine low scale structures to the North.

The design utilizes the natural slope of the adjacent street frontage to access the parking, thereby avoiding internal ramping. Due to geo-technical constraints, the parking is designed at grade, but is completely concealed from view from the Commonwealth Avenue frontage. We feel it is prudent to assume that any site excavation is cost prohibitive.

At the first residential floor, we propose to build out from the building above on the North façade adjacent to Brighton Marine to create five maisonettes, multi-bedroom townhouse style units with private outdoor terraces. These exceptional units will have direct access from dedicated parking spaces in the lower garage as well as direct entrances from a new public path leading from Commonwealth Avenue to the urban wilds behind. The roofs of these maisonettes serve as private terraces for the first floor units in the elevator building.

Unit types are intentionally kept to a simple standard, with three basic unit types in the elevator building, a one bedroom @ 750 and 840 s.f., a two bedroom @ 900 s.f. and 990 s.f., and a two bedroom with a study @ 1050 s.f.. Some units will have balconies and others will have bay windows, depending on location and orientation.

In addition, the five maisonettes are 1200 s.f. two bedroom townhouses. There will be very little distinction between affordable and market units.

Barrier free units will meet all State and Federal requirements, and will be designated on corridor floors. Obviously, all public areas in the building will be fully accessible.

We have proposed a library and exercise room on the ground floor adjacent to the lobby open to all residents of 1501 and their guests.

There are a total of 55 parking spaces proposed on one level, and these will be controlled through decorative hardwood garage doors.

Exterior materials and details are not finally defined, and it is assumed the building design will change as the process emerges. However, it is our strong desire to create a contextual structure that emulates other Commonwealth Avenue residential buildings. Therefore, it should be assumed that materials will be masonry and/or terra cotta, with pitched gable roof elements in simulated slate. Further design refinement will explore utilizing the sloped roof elements to organize active solar components facing south. Night lighting will be particularly important, as this side of Commonwealth Avenue is generally perceived by residents of the area as dark and uninviting.

## **5.0 APPENDIX**

Appendix 1: Department of Neighborhood Development Designation & Information Document

Appendix 2: ALTA Survey

Appendix 3: Transportation Report

Appendix 4: Geotechnical Report

Appendix 5: Environmental Report

Appendix 6: Architectural Floor Plans and Elevations

Appendix 7: Site Photos

Appendix 8: Preliminary Sustainability Checklist

Appendix 9: Inspectional Services Department Letter

Appendix 10: Boston Redevelopment Authority Letter of Intent & Project Information



## DEPARTMENT OF NEIGHBORHOOD DEVELOPMENT

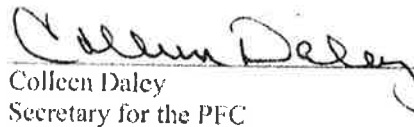
THOMAS M. MENINO, MAYOR  
EVELYN FRIEDMAN, CHIEF AND DIRECTOR

The undersigned hereby certifies that she is the Secretary of the Public Facilities Commission, and that at a meeting of said Commission, duly called and held on Thursday, June 10, 2010, whereat Commissioner, Michael Hatfield, and Commissioner, John Walsh, of said Commission were present, it was voted:

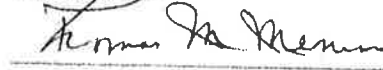
That the vote of this Commission at its meeting on July 24, 2008 and, thereafter, amended on July 29, 2009 regarding the tentative designation and intent to sell the land with building thereon located at 1501 Commonwealth Avenue (Ward.21, Parcel Number 01830000) in the Brighton District of the City of Boston containing approximately 31,319 square feet of land to Brighton Partnership for Community Reinvestment, LLC with an address of 205 Newbury Street, Boston, MA 02116, (or nominee)

be, and hereby is amended as follows:

By deleting the words and figures: "24 months" and substituting in place thereof the following words and figures: "36 months" wherever such may appear.

  
Colleen Daley  
Secretary for the PFC

APPROVED:

  
\_\_\_\_\_  
Mayor Thomas M. Menino



City of Boston – Department of Neighborhood Development  
**ENVIRONMENTAL DATA AND PROJECT INFORMATION FORM**

(Environmental Assessments for Federally Funded Development Projects)

---

**I. IDENTIFICATION**

Applicant: **Brighton Partnership for Community Reinvestment, LLC**

Address: **437 Columbus Avenue, Boston, MA 02116**

Project Name: **Charing Cross**

Location: **1501 Commonwealth Avenue, Boston, MA**

Project Boundaries: **The subject property fronts onto Commonwealth Avenue to the east, by the Brighton Marine Health Center to the north, Kindred Hospital to the south, and wooded land (Ringer Park) to the west.**

Estimated Total Project Cost (All sources): **Approximately \$18MM**

Estimated Total DND Cost:

Expected DND Funding Sources #1 Specify Amount

Expected DND Funding Sources #2 Specify Amount

Expected DND Funding Sources #3 Specify Amount

Expected DND Funding Sources #4 Specify Amount

Project Duration: Start: **September 2012 Completion: January, 2014**

Report Prepared by: Merrill H. Diamond  
**9/8/11** (Signature)

Date:

Name: **Merrill H. Diamond**  
Title: **Manager**  
Address: **437 Columbus Avenue, Boston, MA 02116**  
Telephone Number: **617-512-1027**  
E-Mail: **mdiamond@diamondsinacori.com**

**Instructions:**

Provide the information requested on the following pages as it pertains to your project, in as much detail as is necessary for a clear understanding of the proposed project. If any item is not applicable, so state

## I. PROJECT DESCRIPTION

Describe briefly, but in as much detail as is necessary, the proposed project. Identify and describe all component of the project and all actions necessary to complete the project. Identify applicable, size or scale of project, number of housing units, square footage of components, design, use, type of facilities to be included, and other descriptive features. Give total area of project site (sq. ft. or acres).

**The Brighton Partnership for Community Reinvestment is proposing to redevelop the former Provident Nursing located at 1501 Commonwealth Avenue into *Charing Cross*, a 55 unit mixed-income condominium complex with accessory parking.**

**This property is a highly visible gateway site, and it presents a unique opportunity to provide much needed homeownership opportunities for a section of the city that is typified by rental housing. The proposed project will contain approximately 65,000 gross square feet, and will include a parking garage for approximately 55 vehicles for residential use, streetscape improvements on Commonwealth Avenue, and other community benefits.**

**The proposed building will be 5 stories of residences above 1 level of structured parking that works with both the slope and the rock outcropping of the site. The architecture of Charing Cross will be in the English Jacobean style in order to meld seamlessly into the architectural fabric of this part of Commonwealth Avenue.**

**In order to complete the project, the Developer will need to complete the City's Article 80 Permitting Process and to raise funding for initial expenses to pay for Soft Costs and for Project Marketing (Sales Center, Collaterals, etc.). Given the economic climate, we anticipate a lending requirement of 50% pre-construction sales in order to close a construction loan and to begin construction. We are currently in the process of lining up funding for both aspects of the project, i.e. the initial funding and the consequent construction funding.**

## II. PROJECT AREA DESCRIPTION

Describe the characteristics of the project area (project site and immediate environs) and the neighborhood in which the project is to be located, in terms of land use, development and general physical characteristics and conditions. Estimate area of project site, which is developed (describe), vacant and unutilized, or open space (describe). Identify both positive and negative aspects of the existing environment of the project site and area.

**The proposed site is approximately 31320 sf and is located at 1501 Commonwealth Avenue on a service road that parallels Commonwealth Avenue in the Brighton section of Boston. The subject site sits near the top of**



**a hill that affords the proposed development with sweeping views of downtown Boston.**

**The proposed building will occupy approximately half of the site with the remaining half to be devoted to open space.**

**The host neighborhood has a large number of residential rental units, many of which are occupied by students and the elderly. In addition, the area hosts a number of institutional, commercial and retail uses.**

**The subject site is currently occupied by a vacant 2-story, concrete/masonry building that was formerly used as a nursing home. A paved surface parking lot is located to the north of the existing building. A grassed area is located behind the building on the south side. Existing grade along the eastern portion of the site adjacent to Commonwealth Avenue slopes down from south to north from approximately Elevation +140 to Elevation +121. Within the paved parking area, existing grade slopes upward from east to west from approximately Elevation +121 to Elevation +128. Behind the building, existing grade slopes steeply upward from approximately Elevation +137 to Elevation +147.**

**A single level parking structure is located on the abutting property to the south. Exposed concrete columns that support the structure were observed to bear on a bedrock outcropping that extends onto the southern portion of the site, adjacent to the southwest corner of the existing site building.**

**It is understood that the proposed development includes demolition of the existing structure and construction of a new 4-story building containing a level of at-grade parking that will closely approximate the existing grades along Commonwealth Avenue and four levels of residential space above. The proposed building will contain no below-grade space.**

**The proposed building will contain 55 condominium residences and is approximately 65,000 sf.**

**The positive aspects of the existing environment of the project site and area are the views from the proposed building, the easy access to public transportation, and the relatively short walk to nearby retail and service areas. The negative aspects of the existing environment of the project site and area are the large rock outcropping that has impacted the design of the building, the relative proximity of a large public housing project, and the degree to which the host neighborhood is largely comprised of students and the elderly living in rental housing.**

## **II. MAPS AND PLANS (Attached at end of document)**

- Provide maps showing location of the project within the City of Boston and the project neighborhood.
- Provide a plan of the site and immediate environs, showing existing conditions, building streets, etc., identify current uses and any important or special man-made or natural features.
- Provide a site plan of the proposed development.
- Provide drawings or elevations of the proposed development, if available.
- Provide photographs of the project site.

### III. PROJECT IMPACTS

Provide relevant information and documentation on the following applicable categories as to the anticipated impacts, both beneficial and adverse as a result of the proposed project:

- Conformance with Comprehensive Plans and Zoning

**The site is located in a “MFR-1” subdistrict of the Allston-Brighton Neighborhood District. The multifamily use that we have proposed for 1501 Commonwealth Avenue is an allowed use under the code, though the proposal would require relief for other provisions. The site is also adjacent to the Greenbelt Protection Overlay District.**

- Compatibility and Urban impact

**The proposed project is architecturally and historically compatible with the best architecture on this stretch of Commonwealth Avenue. Indeed, it takes its inspiration from a building across Commonwealth Avenue which is also designed in the English Jacobean style.**

- Slope

**The proposed project works with the existing slope and, as such, will not have a negative impact on the site or its abutters.**

- Erosion

**The existing site is largely paved and the proposed project will improve any considerations based on site erosion.**

- Soil Suitability

**Our sub-surface studies and tests indicate that the proposed site is suitable for constructing the proposed building. Doing so will not have a negative impact on the site or its abutters.**

- Hazards and Nuisances, including site safety

**The only safety issue for residents of Charing Cross is presented by the proximity of The Commonwealth Public Housing Development. We believe, especially from our experience both in developing public housing and living in very close proximity to public housing, that this is more of a perceived threat than a real danger so long as people in the neighborhood, including the residents of Charing Cross, use common sense in the evening hours.**

- Energy Consumption

**The proposed building is being designed to conform to DND LEED Silver “Certifiable” standard.**

- Effect of Ambient Noise on Project and Contribution to Community Noise Level

**We do not anticipate any contribution to the Community Noise Level, especially since Charing Cross will be located on busy Commonwealth Avenue, a street that is a heavily traveled thoroughfare by cars, trucks and the Green Line trolley.**

- Effects of Ambient Air Quality on Project and Contribution to Community Pollution Levels

**The project will not have an impact on the air quality in the area and will not contribute to community pollution levels other than that caused by car use associated with the development.**

- Visual Quality – Coherence, Diversity, Compatible Use, and Scale

**Charing Cross is designed in the English Jacobean style and, as such, is of an architectural language that is prevalent on this part of Commonwealth Avenue. We are not trying to achieve architectural diversity but, rather, architectural compatibility. The scale is also compatible with the buildings across the street (although far smaller in size and scale than its neighbor to the west) and its use, residential condominiums, can only help stabilize a neighborhood that is currently residential, but largely rentals.**

- Historic, Cultural, and Archeological Resources

**The subject building is a two-story nursing home with no historic or cultural resources. It is also highly unlikely that excavation of the site will result in our finding any archeological resources, especially since the project’s design does not require significant excavation of the site.**

- Demographic/Character Changes

**Insofar as the neighborhood is primarily residential in character, Charing Cross will serve to continue to reinforce that use pattern. However, to the extent that Charing Cross is a condominium development, it will bring more homeowners to an area that desperately needs more of same to achieve a higher degree of neighborhood stability and a population more vested in the long-term success and viability of the area.**

- Displacement

**The site is currently an abandoned nursing home and, consequently, there will be no displacement of any indigenous population.**

- Employment and Income Patterns

N/A

- Educational Facilities

**The closest educational facilities are Brighton High School and Boston College. The proposed building will have no impact on those facilities.**

- Commercial Facilities

**There are commercial facilities both across the street from the site and on the same side of the street from the site, heading inbound. The proposed project should create a new customer base for these commercial facilities.**

- Health Care

**The proposed project should not have a negative impact on area health care.**

- Social Services

**The proposed project should not have a negative impact on area social services.**

- Solid Waste

**Solid waste from the proposed building will be handled in accordance with local codes and ordinances. We do not anticipate any negative impact from same.**

- Waste Water

**Waste water from the proposed building will be handled in accordance with local codes and ordinances. We do not anticipate any negative impact from same.**

- Storm Water

**Storm water from the proposed building will be handled in accordance with local codes and ordinances. We do not anticipate any negative impact from same.**

- Water Supply

**With only 55 units, we do not anticipate any negative impact on the water supply.**

- Public Safety: Police

**We do not anticipate any significant negative impact on the local police from our proposed resident population.**

- Public Safety: Fire Protection

**The proposed building will be designed and constructed in accordance with all local codes and ordinances. We do not anticipate the proposed project having a negative impact on fire protection relative to our building or its neighbors.**

- Public Safety: Emergency Medical

**The subject site formerly housed a nursing home. Our proposed use of residential condominiums should have less of an impact on emergency medical traffic and services.**

- Open Space

**Charing Cross has been designed such that approximately half of the site is open space, the largest of which is an interior courtyard area created by the "L" shaped plan of the building. As a practical matter, in addition to this courtyard, most of the units of Charing Cross feature private outdoor spaces.**

- Conservation Land

**The closest property that would qualify as “conservation land” would be the adjacent City-owned Ringer Park to the northwest of the subject property and the Chestnut Hill Reservoir to the west of the subject property. The proposed project, as part of its community benefits program, will be making a financial contribution to this park.**

- Recreation

**The closest property that would qualify as “recreation land” would be the adjacent City-owned Ringer Park to the northwest of the subject property. However, as one walks to Chestnut Hill Avenue to the west, there are ballfields, skating rinks, and public swimming facilities available, along with various shops and eateries. Also in the area is the Chestnut Hill Reservoir with a recently renovated walking and jogging trail. Boston College, featuring Division 1 sports, is also a very manageable walk from the subject site. The proposed project should have little or no impact on these recreational facilities and no negative impact whatsoever.**

- Cultural Facilities

**The closest cultural facility to the subject site would be Boston College, which offers a large array of dramatic and musical programs, many of which are open to the general public. The proposed project will have no impact on these cultural facilities.**

- Transportation

**Charing Cross is located on the Green Line with a station located directly across the street along the median. Private vehicular transportation is amply served by Commonwealth Avenue which leads, to the west, to Newton and beyond and, to the east, to downtown Boston. With only 55 condominium units, there should be no substantive impact on public or private transportation routes.**

- Water Resources

**N/A**

- Surface Water

**Surface water will be addressed in accordance with all local codes and ordinances and water runoff from our project will not a negative impact on the environment.**

- Rock Blasting

**Although there is a large rock outcropping on the subject site, the proposed building, inclusive of the parking garage, has been designed such that blasting should not be necessary on the site.**

- Floodplains

**The subject site is not in a flood plain.**

- Wetlands

**The subject site is not in a wetland, in whole or in part.**

- Coastal Zone

**The subject site is not impacted by Coastal Zone regulations.**

- Unique Natural Features and Agricultural Lands

**N/A**

- Vegetation and Wildlife

**N/A**

#### **IV. ALTERNATIVES TO THE PROPOSED PROJECT**

Describe alternatives to the proposed project, which were or could be considered and indicate reasons for their rejection. Alternatives could include alternative locations or sites for the project and alternative sizes and designs for the project. Describe both positive and negative aspects of the alternative. Indicate whether there are any possible alternatives to the proposed project, which would eliminate or minimize any environmental impact or enhance environmental quality. Describe the positive and negative effects of not implementing the proposed project.

**The primary alternative for the proposed project was a larger building on the same site with more units. This alternative was vetted through a community process under the auspices of an RFP that resulted in a new RFP that called for a smaller building with a resultant diminution in the number of units.**

**The project that emerged from the second RFP was the preference of both DND and the host community. The primary positive aspects of the selected project include traditional architecture that blends seamlessly with the architectural lexicon of the neighborhood, a program that calls for homeownership instead of rental housing in an area desperately in need of the former, and the provision of 19 units of Affordable Housing. The primary negative feature of the selected project is the**

**current difficulty of getting a condominium project financed due to the economic collapse of late 2008.**

**The only alternative to the selected project would be a modification to the project program such that the units would become rental rather than condominiums. This would require a new RFP and likely community opposition to having more rental units in the host neighborhood. This would not lessen nor increase any environmental aspects of the project other than that noted above.**

**There are no positive effects to not implementing the proposed project. The negative effects would be the continued existence of an abandoned nursing home that is a non-contributive blight on the neighborhood and the elimination of proposed homeownership opportunities and much needed Affordable Housing.**

## **V. MODIFICATIONS TO PROPOSED PROJECT**

Describe any ways in which the proposed project could be modified in order to enhance environmental quality or to eliminate or reduce potential adverse environmental impacts. Describe both positive and negative aspects of any such modifications.

**To the best of our knowledge, there are no modifications to the proposed project that would enhance environmental quality or that would eliminate or reduce potential adverse environmental impacts.**

## **VI. EVIDENCE OF CONTROVERSY**

Indicate whether there is evidence of any actual or potential controversy regarding the project, as indicated by public review or other wise. Discuss the nature and degree of the controversy and identify the parties involved. Describe measures that have been or will be implemented to resolve the issues raised.

**There are no controversies of any kind regarding this project. It was awarded as the result of an RFP Response that was overwhelmingly supported by the host community because of both its architecture and its program of bringing homeownership opportunities to a part of Boston that is desperately in need of same.**













PRECISION  
DATA  
INDUSTRIES, LLC

PRECISION DATA INDUSTRIES, LI  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdillc.com

*Traffic Counts with Precision*



Google

Eye on

Image Date: 5/18/2010 10:05:52 AM

Client: Howard Stein-Hudson	Engineer: J. SanClemente	Site Code:	Date: Wednesday 12/14/11	PDI Job Number: 112737	City, State: Brighton, MA
--------------------------------	-----------------------------	------------	-----------------------------	---------------------------	------------------------------



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB  
 E/W/NSW: Warren Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 A1  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Commonwealth Avenue (Route 30) WB From North					MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South					Carriage Road From Southwest					Warren Street From West					Carriage Road From Northwest					Int. Total
	Hard Right	Right	Beer Right	Thru	Left	Right	Beer Right	Thru	Beer Left	Left	Right	Thru	Beer Left	Left	Hard Left	Hard Right	Beer Right	Beer Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Beer Right	Beer Left	Hard Left	
07:00 AM	0	5	1	55	0	0	0	75	0	1	0	0	0	0	0	0	0	0	4	5	5	42	0	0	11	4	12	0	0	220	
07:15 AM	0	9	0	65	0	0	0	95	1	2	0	0	0	0	0	0	0	0	9	1	11	52	0	0	20	8	12	0	0	285	
07:30 AM	0	19	2	101	0	0	0	99	0	6	0	0	0	0	0	0	0	0	11	6	12	62	0	0	19	11	17	0	0	365	
07:45 AM	0	11	1	82	0	0	0	115	0	5	0	0	0	0	0	0	0	0	8	7	11	61	0	0	15	8	16	1	0	341	
<b>Total</b>	<b>0</b>	<b>44</b>	<b>4</b>	<b>303</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>384</b>	<b>1</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>19</b>	<b>39</b>	<b>217</b>	<b>0</b>	<b>0</b>	<b>65</b>	<b>31</b>	<b>57</b>	<b>1</b>	<b>0</b>	<b>1211</b>	
08:00 AM	0	6	0	59	1	0	0	102	3	8	0	0	0	0	0	1	0	0	10	5	11	55	0	0	14	10	27	0	0	312	
08:15 AM	0	9	1	44	1	0	0	103	3	7	0	0	0	0	0	1	0	0	8	5	7	58	0	0	5	8	17	0	0	277	
08:30 AM	0	10	0	72	1	0	0	81	2	4	0	0	0	0	0	2	0	0	5	4	11	50	0	0	10	6	19	0	0	277	
08:45 AM	0	6	1	52	0	0	0	71	1	7	0	0	0	0	0	1	0	0	10	1	8	57	0	0	9	15	13	0	0	252	
<b>Total</b>	<b>0</b>	<b>31</b>	<b>2</b>	<b>227</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>357</b>	<b>9</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>33</b>	<b>15</b>	<b>37</b>	<b>220</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>39</b>	<b>76</b>	<b>0</b>	<b>0</b>	<b>1118</b>	
Grand Total	0	75	6	530	3	0	0	741	10	40	0	0	0	0	0	5	0	0	65	34	76	437	0	0	103	70	133	1	0	2329	
Apprch %	0	12.2	1	86.3	0.5	0	0	93.7	1.3	5.1	0	0	0	0	0	7.1	0	0	92.9	6.2	13.9	79.9	0	0	33.8	22.8	43.3	0.3	0		
Total %	0	3.2	0.3	22.8	0.1	0	0	31.8	0.4	1.7	0	0	0	0	0	0.2	0	0	2.8	1.5	3.3	18.8	0	0	4.4	3	5.7	0	0		
Cars	0	70	6	509	3	0	0	721	10	37	0	0	0	0	0	4	0	0	64	29	70	419	0	0	95	60	128	1	0	2226	
% Cars	0	93.3	100	96	100	0	0	97.3	100	92.5	0	0	0	0	0	80	0	0	98.5	85.3	92.1	95.9	0	0	92.2	85.7	96.2	100	0	95.6	
Heavy Vehicles	0	5	0	21	0	0	0	20	0	3	0	0	0	0	0	1	0	0	1	5	6	18	0	0	8	10	5	0	0	103	
	0	6.7	0	4	0	0	0	2.7	0	7.5	0	0	0	0	0	20	0	0	1.5	14.7	7.9	4.1	0	0	7.8	14.3	3.8	0	0	4.4	

Start Time	Commonwealth Avenue (Route 30) WB From North					MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South					Carriage Road From Southwest					Warren Street From West					Carriage Road From Northwest					Int. Total
	Hard Right	Right	Beer Right	Thru	Left	Right	Beer Right	Thru	Beer Left	Left	Right	Thru	Beer Left	Left	Hard Left	Hard Right	Beer Right	Beer Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Beer Right	Beer Left	Hard Left	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

07:15 AM	0	9	0	65	0	74	0	0	95	1	2	98	0	0	0	0	0	0	9	9	1	11	52	0	0	64	20	8	12	0	0	40	285
07:30 AM	0	19	2	101	0	122	0	0	99	0	6	105	0	0	0	0	0	0	11	11	6	12	62	0	0	80	19	11	17	0	0	47	365
07:45 AM	0	11	1	82	0	94	0	0	115	0	5	120	0	0	0	0	0	0	8	8	7	11	61	0	0	79	15	8	16	1	0	40	341
08:00 AM	0	6	0	59	1	66	0	0	102	3	8	113	0	0	0	0	0	0	10	11	5	11	55	0	0	71	14	10	27	0	0	51	312
Total Volume	0	45	3	307	1	356	0	0	411	4	21	436	0	0	0	0	0	0	38	39	19	45	230	0	0	294	68	37	72	1	0	178	1303
% App. Total	0	12.6	0.8	86.2	0.3	0	0	94.3	0.9	4.8	0	0	0	0	0	2.6	0	0	97.4	6.5	15.3	78.2	0	0	38.2	20.8	40.4	0.6	0	0	0		
PHF	0.000	0.522	0.375	0.760	0.250	0.730	0.000	0.000	0.893	0.333	0.556	0.908	0.000	0.000	0.000	0.000	0.000	0.888	0.570	0.938	0.227	0.000	0.000	0.919	0.850	0.841	0.687	0.250	0.000	0.873	0.892		
Cars	0	41	3	285	1	340	0	0	403	4	19	426	0	0	0	0	0	0	37	38	17	41	221	0	0	279	64	31	69	1	0	165	1248
% Cars	0	91.1	100	96.1	100	95.5	0	0	96.1	100	90.5	97.7	0	0	0	0	0	0	97.4	97.4	89.5	91.1	96.1	0	0	94.9	94.1	83.8	95.8	100	0	92.7	95.8
Heavy Vehicles	0	4	0	12	0	16	0	0	8	0	2	10	0	0	0	0	0	0	1	1	2	4	9	0	0	15	4	6	3	0	0	13	55
% Heavy Vehicles	0	8.9	0	3.9	0	4.5	0	0	1.9	0	9.5	2.3	0	0	0	0	0	0	2.6	2.6	10.5	8.9	3.9	0	0	5.1	5.9	16.2	4.2	0	0	7.3	4.2



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB  
 E/W/NSW: Warren Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 A1  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Cars

Start Time	Commonwealth Avenue (Route 30) WB From North					MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South					Carriage Road From Southwest					Warren Street From West					Carriage Road From Northwest					Int. Total
	Hard Right	Right	Bear Right	Thru	Left	Right	Bear Right	Thru	Bear Left	Left	Right	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Right	Bear Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Bear Right	Bear Left	Left	
07:00 AM	0	5	1	54	0	0	0	72	0	1	0	0	0	0	0	0	0	0	0	4	3	5	37	0	0	10	4	11	0	0	207
07:15 AM	0	7	0	61	0	0	0	92	1	2	0	0	0	0	0	0	0	0	0	9	0	10	48	0	0	19	6	12	0	0	267
07:30 AM	0	17	2	95	0	0	0	96	0	5	0	0	0	0	0	0	0	0	0	11	5	10	61	0	0	17	10	16	0	0	345
07:45 AM	0	11	1	80	0	0	0	114	0	4	0	0	0	0	0	0	0	0	0	8	7	10	57	0	0	14	5	15	1	0	327
<b>Total</b>	0	40	4	290	0	0	0	374	1	12	0	0	0	0	0	0	0	0	0	32	15	35	203	0	0	60	25	54	1	0	1146
08:00 AM	0	6	0	59	1	0	0	101	3	8	0	0	0	0	0	0	1	0	0	9	5	11	55	0	0	14	10	26	0	0	309
08:15 AM	0	8	1	41	1	0	0	98	3	7	0	0	0	0	0	0	1	0	0	8	4	7	57	0	0	4	8	16	0	0	264
08:30 AM	0	10	0	68	1	0	0	80	2	3	0	0	0	0	0	0	1	0	0	5	4	9	49	0	0	9	5	19	0	0	265
08:45 AM	0	6	1	51	0	0	0	68	1	7	0	0	0	0	0	0	1	0	0	10	1	8	55	0	0	8	12	13	0	0	242
<b>Total</b>	0	30	2	219	3	0	0	347	9	25	0	0	0	0	0	0	4	0	0	32	14	35	216	0	0	35	35	74	0	0	1080
<b>Grand Total</b>	0	70	6	509	3	0	0	721	10	37	0	0	0	0	0	0	4	0	0	64	29	70	419	0	0	95	60	128	1	0	2226
<b>Apprch %</b>	0	11.9	1	88.8	0.5	0	0	93.9	1.3	4.8	0	0	0	0	0	0	5.9	0	0	94.1	5.6	13.5	80.9	0	0	33.5	21.1	45.1	0.4	0	
<b>Total %</b>	0	3.1	0.3	22.9	0.1	0	0	32.4	0.4	1.7	0	0	0	0	0	0	0.2	0	0	2.9	1.3	3.1	18.8	0	0	4.3	2.7	5.8	0	0	

Start Time	Commonwealth Avenue (Route 30) WB From North							MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Warren Street From West						Carriage Road From Northwest						Int. Total
	Hard Right	Right	Bear Right	Thru	Left	App. Total	Right	Bear Right	Thru	Bear Left	Left	App. Total	Right	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Bear Left	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 07:15 AM																																					
07:15 AM	0	7	0	61	0	68	0	0	92	1	2	95	0	0	0	0	0	0	0	0	0	0	9	9	0	10	48	0	0	58	19	6	12	0	0	37	267
07:30 AM	0	17	2	95	0	114	0	0	96	0	5	101	0	0	0	0	0	0	0	0	0	0	11	11	5	10	61	0	0	76	17	10	16	0	0	43	345
07:45 AM	0	11	1	80	0	92	0	0	114	0	4	118	0	0	0	0	0	0	0	0	0	0	8	8	7	10	57	0	0	74	14	5	15	1	0	35	327
08:00 AM	0	6	0	59	1	66	0	0	101	3	8	112	0	0	0	0	0	0	0	1	0	0	9	10	5	11	55	0	0	71	14	10	26	0	0	50	309
<b>Total Volume</b>	0	41	3	285	1	340	0	0	403	4	19	426	0	0	0	0	0	0	0	1	0	0	37	38	17	41	221	0	0	279	64	31	69	1	0	165	1248
<b>% App. Total</b>	0	12.1	0.9	88.8	0.3	0	0	84.6	0.9	4.5	0	0	0	0	0	0	2.8	0	0	97.4	6.1	14.7	79.2	0	0	38.8	18.8	41.8	0.8	0							
<b>PHF</b>	0.00	0.03	0.03	0.03	0.03	0.04	0.00	0.00	0.04	0.03	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.04	0.04	0.07	0.03	0.08	0.00	0.00	0.09	0.04	0.03	0.03	0.03	0.00	0.02	0.04



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB  
 E/W/NSW: Warren Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 A1  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Commonwealth Avenue (Route 30) WB From North					MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South					Carriage Road From Southwest					Warren Street From West				Carriage Road From Northwest					Int. Total						
	Hard Right	Right	Bear Right	Thru	Left	Right	Bear Right	Thru	Bear Left	Left	Right	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Right	Bear Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Bear Right	Bear Left		Hard Left					
07:00 AM	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	2	0	0	0	0	1	0	1	0	0	13
07:15 AM	0	2	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	1	1	4	0	0	1	2	0	0	0	18
07:30 AM	0	2	0	6	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	1	0	0	2	1	1	0	0	20
07:45 AM	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	4	0	0	1	3	1	0	0	14
<b>Total</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>65</b>
08:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3
08:15 AM	0	1	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	13
08:30 AM	0	0	0	4	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	2	1	0	0	0	1	1	0	0	1	1	0	0	0	12
08:45 AM	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	0	1	3	0	0	0	10
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>38</b>
<b>Grand Total</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>17.2</b>	<b>20.7</b>	<b>62.1</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>10</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>103</b>
<b>Apprch %</b>	<b>0</b>	<b>19.2</b>	<b>0</b>	<b>80.8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>87</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>17.2</b>	<b>20.7</b>	<b>62.1</b>	<b>0</b>	<b>0</b>	<b>34.8</b>	<b>43.5</b>	<b>21.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total %</b>	<b>0</b>	<b>4.9</b>	<b>0</b>	<b>20.4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19.4</b>	<b>0</b>	<b>2.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4.9</b>	<b>5.8</b>	<b>17.6</b>	<b>0</b>	<b>0</b>	<b>7.8</b>	<b>9.7</b>	<b>4.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Start Time	Commonwealth Avenue (Route 30) WB From North						MBTA Tracks From East						Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Warren Street From West						Carriage Road From Northwest						Int. Total						
	Hard Right	Right	Bear Right	Thru	Left	App. Total	Right	Bear Right	Thru	Bear Left	Left	App. Total	Right	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	App. Total							
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																											
Peak Hour for Entire Intersection Begins at 07:00 AM																																											
07:00 AM	0	0	0	1	0	1	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5	0	0	7	1	0	1	0	0	2	13
07:15 AM	0	2	0	4	0	6	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	0	0	6	1	2	0	0	0	3	18
07:30 AM	0	2	0	6	0	8	0	0	3	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	4	2	1	1	0	0	4	20
07:45 AM	0	0	0	2	0	2	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	1	3	1	0	0	5	14
<b>Total Volume</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>2</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>5</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>65</b>
<b>% App. Total</b>	<b>21.5</b>	<b>0</b>	<b>75.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>83.3</b>	<b>0</b>	<b>16.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18.2</b>	<b>18.2</b>	<b>63.6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>35.7</b>	<b>42.9</b>	<b>21.4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>PHF</b>	<b>0.000</b>	<b>0.500</b>	<b>0.000</b>	<b>0.542</b>	<b>0.000</b>	<b>0.531</b>	<b>0.000</b>	<b>0.000</b>	<b>0.333</b>	<b>0.000</b>	<b>0.500</b>	<b>0.750</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.500</b>	<b>0.500</b>	<b>0.700</b>	<b>0.000</b>	<b>0.000</b>	<b>0.788</b>	<b>0.215</b>	<b>0.500</b>	<b>0.750</b>	<b>0.000</b>	<b>0.000</b>	<b>0.700</b>	<b>0.813</b>





P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB  
 E/W/NSW: Warren Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 A1  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Peds and Bicycles

Start Time	Commonwealth Avenue (Route 30) WB From North						MBTA Tracks From East						Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Warren Street From West						Carriage Road From Northwest						Int. Total
	Har d	Ri	Be	Th	Le	Pe	Ri	Be	Th	Be	Le	Pe	Ri	Th	Be	Le	Har d	Pe	Har d	Be	Be	Le	Har d	Pe	Har d	Ri	Th	Le	Har d	Pe	Har d	Ri	Be	Be	Har d	Pe	
07:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	10	0	0	1	0	0	5	0	0	0	0	0	1	32
07:15 AM	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	31	4	0	1	0	0	5	0	0	0	0	0	22	101
07:30 AM	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	31	4	0	1	0	0	5	0	0	0	0	0	22	101
07:45 AM	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	31	4	0	1	0	0	5	0	0	0	0	0	22	101
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>81</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>80</b>	<b>4</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>33</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>91</b>	<b>333</b>
08:00 AM	0	0	0	0	0	13	0	0	1	0	0	0	0	0	0	0	0	35	0	0	0	0	0	37	0	0	0	0	0	20	0	0	0	0	0	16	122
08:15 AM	0	0	0	0	0	5	0	0	1	0	0	0	0	0	0	0	0	16	0	0	0	0	0	17	1	0	1	0	0	6	1	0	0	0	0	24	72
08:45 AM	0	0	0	0	0	5	0	0	1	0	0	0	0	0	0	0	0	16	0	0	0	0	0	17	1	0	1	0	0	6	1	0	0	0	0	24	72
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>111</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>120</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>53</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>86</b>	<b>430</b>
Grand Total	0	1	0	1	1	71	0	0	4	0	0	4	0	0	0	0	0	192	0	0	0	0	0	200	5	0	17	0	0	86	2	1	0	1	0	177	763
Apprch %	0	1.4	0	1.4	1.4	95.9	0	0	50	0	0	50	0	0	0	0	0	100	0	0	0	0	0	100	4.6	0	15.7	0	0	78.6	1.1	0.6	0	0.6	0	87.8	
Total %	0	0.1	0	0.1	0.1	9.3	0	0	0.5	0	0	0.5	0	0	0	0	0	25.2	0	0	0	0	0	26.2	0.7	0	2.2	0	0	11.3	0.3	0.1	0	0.1	0	23.2	

Start Time	Commonwealth Avenue (Route 30) WB From North							MBTA Tracks From East							Commonwealth Avenue (Route 30) WB From South							Carriage Road From Southwest							Warren Street From West							Carriage Road From Northwest							Int. Total
	Har d	Ri	Be	Th	Le	Pe	App. Total	Ri	Be	Th	Be	Le	Pe	App. Total	Ri	Th	Be	Le	Har d	Pe	App. Total	Har d	Be	Be	Le	Har d	Pe	App. Total	Har d	Ri	Th	Le	Har d	Pe	App. Total	Har d	Ri	Be	Be	Har d	Pe	App. Total	
07:30 AM	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	30	30	0	0	0	0	0	31	31	4	0	1	0	0	5	10	0	0	0	0	0	22	22	101	
07:45 AM	0	0	0	0	0	11	11	0	0	1	0	0	1	2	0	0	0	0	0	24	24	0	0	0	0	0	24	24	0	0	5	0	0	16	20	0	0	0	0	0	33	33	114
08:00 AM	0	1	0	0	1	18	17	0	0	0	0	0	2	2	0	0	0	0	0	33	35	0	0	0	0	0	38	38	0	0	1	0	0	17	18	0	0	0	1	0	36	37	147
08:15 AM	0	0	0	0	0	13	13	0	0	1	0	0	0	1	0	0	0	0	0	35	35	0	0	0	0	0	37	37	0	0	0	0	0	20	20	0	0	0	0	0	16	16	122
Total Volume	0	1	0	0	1	47	49	0	0	2	0	0	3	5	0	0	0	0	0	124	124	0	0	0	0	0	130	130	4	0	7	0	0	57	68	0	0	0	1	0	10	108	484
% App. Total	0	2	0	0	2	85		0	0	40	0	0	60		0	0	0	0	0	10	10	0	0	0	0	0	10	10	5.9	0	10	0	0	83		0	0	0	0.9	0	99		
PHF	00	25	00	00	25	78	.721	00	00	50	00	00	37	625	00	00	00	00	00	88	888	00	00	00	00	00	85	855	25	00	35	00	00	71	850	00	00	00	25	00	74	730	823

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM





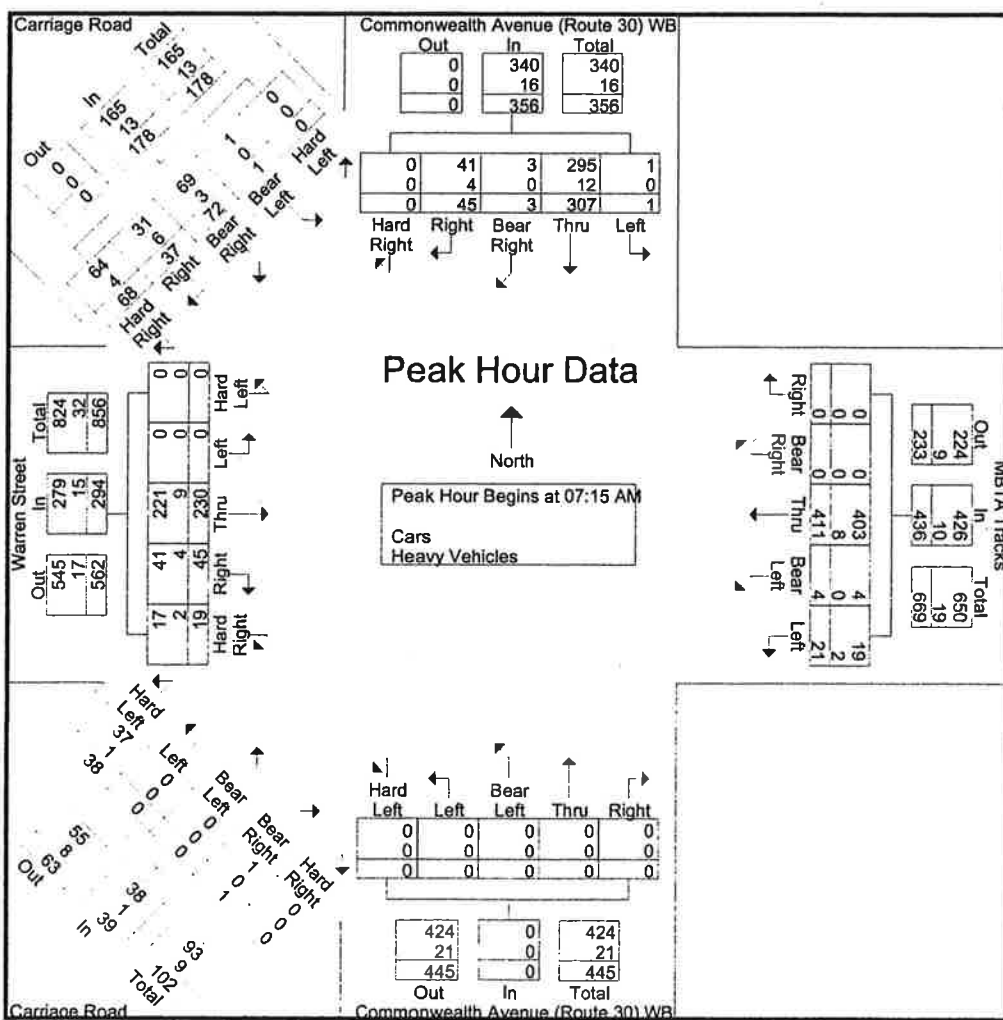
PRECISION  
DATA  
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdllc.com

Commonwealth Avenue (Route 30) WB  
E/W/NSW: Warren Street/Carriage Road  
City, State: Brighton, MA  
Client: HSH/ J. SanClemente

File Name : 112737 A1  
Site Code : TBA  
Start Date : 12/14/2011  
Page No : 1

Start Time	Commonwealth Avenue (Route 30) WB From North						MBTA Tracks From East						Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Warren Street From West						Carriage Road From Northwest						Int. Total			
	Har d RI	Rig ht	Bear r RI	Thru	Left	App. Total	Rig ht	Bear r RI	Thru	Left	App. Total	Rig ht	Thru	Bear r Le	Left	Har d Le	App. Total	Har d RI	Bear r RI	Bear r Le	Left	Har d Le	App. Total	Har d RI	Rig ht	Thru	Left	Har d Le	App. Total	Har d RI	Rig ht	Bear r RI	Bear r Le	Har d Le	App. Total	Har d RI		Rig ht	Bear r RI	Bear r Le
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																								
Peak Hour for Entire Intersection Begins at 07:15 AM																																								
07:15 AM	0	9	0	65	0	74	0	0	95	1	2	98	0	0	0	0	0	0	0	0	0	9	9	1	11	52	0	0	64	20	8	12	0	0	40	285				
07:30 AM	0	19	2	101	0	122	0	0	99	0	6	105	0	0	0	0	0	0	0	0	11	11	6	12	62	0	0	80	19	11	17	0	0	47	365					
07:45 AM	0	11	1	82	0	94	0	0	118	0	5	120	0	0	0	0	0	0	0	0	8	8	7	11	61	0	0	79	15	8	16	1	0	40	341					
08:00 AM	0	6	0	59	1	66	0	0	102	3	8	113	0	0	0	0	0	1	0	0	10	11	5	11	55	0	0	71	14	10	27	0	0	51	312					
Total Volume	0	45	3	307	1	356	0	0	411	4	21	436	0	0	0	0	0	1	0	0	38	39	19	45	230	0	0	294	68	37	72	1	0	178	1303					
% App. Total	0	12.8	0.8	86.2	0.3		0	0	94.3	0.9	4.8		0	0	0	0	0	2.8	0	0	97.4		6.5	15.3	75.2	0	0		38.2	20.8	49.4	0.6	0							
PHF	0.005	0.582	0.375	0.750	0.250	0.730	0.000	0.000	0.893	0.333	0.656	0.908	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.854	0.888	0.679	0.938	0.927	0.000	0.000	0.919	0.850	0.841	0.687	0.250	0.000	0.873	0.892					
Cars	0	41	3	285	1	340	0	0	403	4	19	426	0	0	0	0	0	1	0	0	37	38	17	41	221	0	0	279	64	31	69	1	0	165	1248					
% Cars	0	91.1	100	86.1	100	95.5	0	0	96.1	100	90.5	97.7	0	0	0	0	0	100	0	0	97.4	97.4	86.5	81.1	86.1	0	0	94.9	94.1	83.8	95.8	100	0	0	92.7	95.8				
Heavy Vehicles	0	4	0	12	0	16	0	0	8	0	2	10	0	0	0	0	0	0	0	0	1	1	2	4	9	0	0	15	4	6	3	0	0	13	55					
% Heavy Vehicles	0	8.9	0	3.9	0	4.5	0	0	1.9	0	8.5	2.3	0	0	0	0	0	0	0	0	2.6	2.6	10.5	8.9	3.9	0	0	5.1	5.9	16.2	4.2	0	0	7.3	4.2					





PRECISION  
DATA  
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB  
E/W/NSE: Kelton Street/Carriage Road  
City, State: Brighton, MA  
Client: HSH/ J. SanClemente

File Name : 112737 A2  
Site Code : TBA  
Start Date : 12/14/2011  
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Kelton Street From East					Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total
	Right	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Right	Bear Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Bear Right	Thru	Left	Right	Bear Right	Thru	Bear Left	Left	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	34	0	0	0	0	0	0	0	0	3	0	78	49	0	0	28	1	10	204
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	44	0	0	1	1	0	0	0	0	6	2	99	59	0	0	41	0	11	265
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	48	0	0	3	4	0	0	0	0	0	0	132	56	0	0	55	0	7	307
07:45 AM	0	0	0	0	0	0	0	0	0	0	2	3	58	0	0	4	8	1	0	0	0	16	2	163	64	0	0	52	0	10	383
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>6</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>4</b>	<b>472</b>	<b>228</b>	<b>0</b>	<b>0</b>	<b>176</b>	<b>1</b>	<b>38</b>	<b>1159</b>
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	22	51	0	0	1	6	0	0	0	0	3	0	142	56	0	0	41	0	14	336
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	51	0	0	2	7	0	0	0	0	3	1	161	63	0	0	49	1	9	351
08:30 AM	0	0	0	0	0	0	0	0	0	0	2	16	41	0	0	2	1	0	0	0	0	2	1	165	42	0	0	39	0	11	322
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	11	46	0	0	3	6	0	0	0	0	2	1	175	42	0	0	46	1	11	344
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>53</b>	<b>189</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>3</b>	<b>643</b>	<b>203</b>	<b>0</b>	<b>0</b>	<b>175</b>	<b>2</b>	<b>45</b>	<b>1353</b>
Grand Total	0	0	0	0	0	0	0	0	0	0	5	59	373	0	0	16	33	1	0	0	0	35	7	1116	431	0	0	351	3	83	2512
Approch %	0	0	0	0	0	0	0	0	0	0	1.1	13.5	85.4	0	0	32	66	2	0	0	0	2.2	0.4	70.2	27.1	0	0	80.3	0.7	19	
Total %	0	0	0	0	0	0	0	0	0	0	0.2	2.3	14.8	0	0	0.6	1.3	0	0	0	0	1.4	0.3	44.4	17.2	0	0	14	0.1	3.3	
Cars	0	0	0	0	0	0	0	0	0	0	3	56	362	0	0	15	33	1	0	0	0	34	6	1096	420	0	0	340	3	76	2444
% Cars	0	0	0	0	0	0	0	0	0	0	60	94.9	97.1	0	0	93.8	100	100	0	0	0	97.1	85.7	98.2	97.4	0	0	98.9	100	91.8	97.3
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	2	3	11	0	0	1	0	0	0	0	0	1	1	20	11	0	0	11	0	7	68
	0	0	0	0	0	0	0	0	0	0	40	5.1	2.9	0	0	6.2	0	0	0	0	0	2.9	14.3	1.8	2.6	0	0	3.1	0	8.4	2.7

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Kelton Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total
	Rig	Thru	Bear	Left	Hard	App.	Hard	Bear	Bear	Left	Hard	App.	Hard	Rig	Thru	Left	Hard	App.	Hard	Rig	Bear	Bear	Hard	App.	Hard	Rig	Bear	Thru	Left	App.	Rig	Bear	Thru	Bear	Left	App.	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	3	58	0	0	63	4	8	1	0	0	13	0	16	2	163	64	245	0	0	52	0	10	62	383
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	22	51	0	0	73	1	6	0	0	0	7	0	3	0	142	56	201	0	0	41	0	14	55	336
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	51	0	0	55	2	7	0	0	0	9	0	3	1	161	63	228	0	0	49	1	9	59	351
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	16	41	0	0	59	2	1	0	0	0	3	0	2	1	165	42	210	0	0	39	0	11	50	322
Total	0	0	0	0	0	0	0	0	0	0	0	0	4	45	201	0	0	250	9	22	1	0	0	32	0	24	4	631	225	864	0	0	161	1	44	226	1392
% App. Total	0	0	0	0	0	0	0	0	0	0	0	1.6	18	80.4	0	0	28.1	68.8	3.1	0	0	0	2.7	0.5	71.4	25.5	0	0	80.1	0.4	19.5						
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.88	0.00	0.00	0.56	0.02	0.68	0.10	0.00	0.00	0.15	0.00	0.75	0.00	0.98	0.79	0.902	0.00	0.00	0.70	0.00	0.794	0.911	0.909	
Cars	0	0	0	0	0	0	0	0	0	0	0	0	2	43	197	0	0	242	9	22	1	0	0	32	0	23	4	617	221	865	0	0	178	1	43	220	1359
% Cars	0	0	0	0	0	0	0	0	0	0	0	0	50.8	85.8	98.0	0	0	96.8	100	100	100	0	0	100	0	85.8	100	97.8	98.2	97.9	0	0	97.2	100	97.7	97.3	97.6
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	8	0	0	0	0	0	0	0	1	0	14	4	19	0	0	5	0	1	6	33
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	50.0	4.4	2.0	0	0	3.2	0	0	0	0	0	0	0	4.2	0	2.2	1.8	2.1	0	0	2.8	0	2.3	2.7	2.4

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB  
 E/W/NSE: Kelton Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 A2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Cars

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Kelton Street From East					Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total
	Right	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Right	Bear Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Bear Right	Thru	Left	Right	Bear Right	Thru	Bear Left	Left	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	34	0	0	0	0	0	0	0	0	3	0	76	46	0	0	25	1	8	194
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	43	0	0	0	1	0	0	0	0	6	2	98	57	0	0	39	0	9	256
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	44	0	0	3	4	0	0	0	0	0	0	129	55	0	0	54	0	7	298
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	57	0	0	4	8	1	0	0	0	15	2	160	64	0	0	49	0	9	372
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	1	6	178	0	0	7	13	1	0	0	0	24	4	463	222	0	0	167	1	33	1120
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	21	51	0	0	1	6	0	0	0	0	3	0	140	55	0	0	41	0	14	332
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	50	0	0	2	7	0	0	0	0	3	1	157	60	0	0	48	1	9	341
08:30 AM	0	0	0	0	0	0	0	0	0	0	2	16	39	0	0	2	1	0	0	0	0	2	1	160	42	0	0	38	0	11	314
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	10	44	0	0	3	6	0	0	0	0	2	0	175	41	0	0	46	1	9	337
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	2	50	184	0	0	8	20	0	0	0	0	10	2	632	198	0	0	173	2	43	1324
<b>Grand Total</b>	0	0	0	0	0	0	0	0	0	0	3	56	362	0	0	15	33	1	0	0	0	34	6	1095	420	0	0	340	3	76	2444
<b>Approch %</b>	0	0	0	0	0	0	0	0	0	0	0.7	13.3	86	0	0	30.8	67.3	2	0	0	0	2.2	0.4	70.4	27	0	0	81.1	0.7	18.1	
<b>Total %</b>	0	0	0	0	0	0	0	0	0	0	0.1	2.3	14.8	0	0	0.6	1.4	0	0	0	0	1.4	0.2	44.8	17.2	0	0	13.9	0.1	3.1	

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Kelton Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total		
	Rig	Thru	Bear	Left	Hard	App.	Hard	Bear	Bear	Left	Hard	App.	Hard	Rig	Thru	Left	Hard	App.	Hard	Rig	Bear	Bear	Hard	App.	Hard	Rig	Bear	Thru	Left	App.	Rig	Bear	Thru	Bear	Left	App.			
<b>Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1</b>																																							
<b>Peak Hour for Entire Intersection Begins at 07:45 AM</b>																																							
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	57	0	0	60	4	8	1	0	0	13	0	15	2	160	64	241	0	0	49	0	9	58	372		
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	21	51	0	0	72	1	6	0	0	0	7	0	3	0	140	55	198	0	0	41	0	14	55	332		
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	50	0	0	53	2	7	0	0	0	9	0	3	1	157	60	221	0	0	48	1	9	58	341		
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	16	39	0	0	57	2	1	0	0	0	3	0	2	1	160	42	205	0	0	38	0	11	49	314		
<b>Total Volume</b>	0	0	0	0	0	0	0	0	0	0	0	0	2	43	197	0	0	242	9	22	1	0	0	32	0	23	4	617	221	865	0	0	178	1	43	220	1359		
<b>% App. Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0.8	17.8	81.4	0	0	28.1	68.8	3.1	0	0	0	0	0	0	0	0	0	2.7	0.5	71.3	25.5	0	0	80	0.5	18.5	
<b>PHF</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	512	854	0.00	0.00	840	582	688	250	0.00	0.00	615	0.00	383	500	964	863	897	0.00	0.00	898	250	789	948	913		



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB  
 E/W/NSE: Kelton Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 A2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Kelton Street From East					Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total	
	Right	Thru	Beer Left	Left	Hard Left	Hard Right	Beer Right	Beer Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Beer Right	Beer Left	Hard Left	Hard Right	Right	Beer Right	Thru	Left	Right	Beer Right	Thru	Beer Left	Left		
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	3	0	2	10	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	2	0	0	2	0	2	9	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	3	1	0	0	1	0	9		
07:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	1	0	3	0	0	0	3	0	11		
Total	0	0	0	0	0	0	0	0	0	0	2	0	6	0	0	1	0	0	0	0	0	1	0	9	6	0	0	9	0	5	39	
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	4		
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	3	0	0	1	0	10		
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	0	8		
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	7		
Total	0	0	0	0	0	0	0	0	0	0	0	3	5	0	0	0	0	0	0	0	0	0	1	11	5	0	0	2	0	2	29	
Grand Total	0	0	0	0	0	0	0	0	0	0	2	3	11	0	0	1	0	0	0	0	0	0	1	1	20	11	0	0	11	0	7	68
Approch %	0	0	0	0	0	0	0	0	0	0	12.5	18.8	68.8	0	0	100	0	0	0	0	0	0	3	3	60.6	33.3	0	0	61.1	0	38.9	
Total %	0	0	0	0	0	0	0	0	0	0	2.9	4.4	16.2	0	0	1.5	0	0	0	0	0	0	1.5	1.5	29.4	16.2	0	0	16.2	0	10.3	

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Kelton Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total
	Rig	Thru	Beer	Left	Hard	App.	Hard	Beer	Beer	Left	Hard	App.	Hard	Rig	Thru	Left	Hard	App.	Hard	Rig	Beer	Beer	Hard	App.	Hard	Rig	Beer	Thru	Left	App.	Rig	Beer	Thru	Beer	Left	App.	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	3	0	2	5	10	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	1	2	3	0	0	2	0	2	4	9		
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	3	1	4	0	0	1	0	0	1	9			
07:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	0	0	0	0	0	0	0	0	1	0	3	0	4	0	0	3	0	1	4	11	
Total	0	0	0	0	0	0	0	0	0	0	2	0	6	0	0	8	1	0	0	0	0	1	0	1	0	9	6	16	0	0	9	0	5	14	39		
% App. Total	0	0	0	0	0	0	0	0	0	0	25	0	75	0	0	100	0	0	0	0	0	0	0	0	6.2	0	56.2	37.5	0	0	64.3	0	35.7				
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.75	0.00	0.00	0.50	0.25	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.56	0.37	0.00	0.00	0.64	0.00	0.35	0.70	0.86			

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdllc.com

Commonwealth Avenue (Route 30) EB  
 E/W/NSE: Kelton Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 A2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Peds and Bicycles

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Kelton Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total
	Rght	Thru	Bea	Left	Har	Ped	Har	Bea	Bea	Left	Har	Ped	Har	Rght	Thru	Left	Har	Ped	Har	Rght	Bea	Bea	Har	Ped	Har	Rght	Bea	Thru	Left	Ped	Rght	Bea	Thru	Bea	Left	Ped	
07:00 AM	0	0	0	0	0	5	0	0	0	0	0	5	0	0	2	0	0	8	0	0	0	0	0	14	0	0	0	0	0	14	0	0	1	0	0	0	49
07:15 AM	0	0	0	0	0	8	0	0	0	0	0	6	0	0	1	0	0	3	0	0	0	0	0	8	0	0	0	0	0	9	0	0	1	0	0	0	36
07:45 AM	0	0	0	0	0	7	0	0	0	0	0	8	0	0	0	0	0	11	0	0	0	0	0	13	0	0	0	1	0	13	0	0	5	0	0	0	58
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>177</b>
08:00 AM	0	0	0	0	0	12	0	0	0	0	0	11	0	0	1	0	0	7	0	4	0	0	0	14	0	0	0	0	0	15	0	0	1	0	0	0	65
08:30 AM	0	0	0	0	0	5	0	0	0	0	0	5	0	0	0	0	0	2	0	1	0	0	0	10	0	1	0	0	1	11	0	0	0	1	0	0	37
08:45 AM	0	0	0	0	0	41	0	0	0	0	0	40	0	0	2	0	0	23	0	9	0	0	0	56	0	1	0	1	1	56	0	0	4	4	0	0	238
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>96</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>97</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>415</b>
Approch %	0	0	0	0	0	100	0	0	0	0	0	100	0	0	10.9	0	0	89.1	0	8.8	0	0	0	91.4	0	1	0	2	1	96	0	0	77.3	22.7	0	0	
Total %	0	0	0	0	0	16.1	0	0	0	0	0	15.7	0	0	1.4	0	0	11.8	0	2.2	0	0	0	23.1	0	0.2	0	0.5	0.2	23.4	0	0	4.1	1.2	0	0	

Start Time	Commonwealth Avenue (Route 30) EB From North								Carriage Road From Northeast								Kelton Street From East								Carriage Road From Southeast								Commonwealth Avenue (Route 30) EB From South								MBTA Tracks From West								Int. Total
	Rght	Thru	Bea	Left	Har	Ped	App. Total	Har	Bea	Bea	Left	Har	Ped	App. Total	Har	Rght	Thru	Left	Har	Ped	App. Total	Har	Rght	Bea	Bea	Har	Ped	App. Total	Har	Rght	Bea	Thru	Left	Ped	App. Total	Rght	Bea	Thru	Bea	Left	Ped	App. Total							
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																																	
Peak Hour for Entire Intersection Begins at 07:45 AM																																																	
07:45 AM	0	0	0	0	0	7	7	0	0	0	0	0	8	8	0	0	0	0	0	11	11	0	0	0	0	0	13	13	0	0	0	1	0	13	14	0	0	5	0	0	0	5	58						
08:00 AM	0	0	0	0	0	14	14	0	0	0	0	0	14	14	0	0	1	0	0	6	7	0	1	0	0	0	20	21	0	0	0	1	0	18	19	0	0	1	1	0	0	2	77						
08:15 AM	0	0	0	0	0	12	12	0	0	0	0	0	11	11	0	0	1	0	0	7	8	0	4	0	0	0	14	18	0	0	0	0	0	15	15	0	0	1	0	0	0	1	65						
08:30 AM	0	0	0	0	0	10	10	0	0	0	0	0	10	10	0	0	0	0	0	8	8	0	3	0	0	0	12	15	0	0	0	0	0	12	12	0	0	2	2	0	0	4	59						
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>34</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>58</b>	<b>67</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>58</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>259</b>						
% App. Total	0	0	0	0	0	10	0	0	0	0	0	10	0	0	5.9	0	0	94.1	0	11.1	0	0	0	88.9	0	0	0	3.3	0	96.7	0	0	7.5	2.5	0	0													
<b>PHF</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.76</b>	<b>.768</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.76</b>	<b>.768</b>	<b>.00</b>	<b>.00</b>	<b>.50</b>	<b>.00</b>	<b>.00</b>	<b>.72</b>	<b>.773</b>	<b>.00</b>	<b>.50</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.75</b>	<b>.788</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.50</b>	<b>.00</b>	<b>.80</b>	<b>.789</b>	<b>.00</b>	<b>.00</b>	<b>.45</b>	<b>.37</b>	<b>.00</b>	<b>.00</b>	<b>.500</b>	<b>.841</b>						



PRECISION  
DATA  
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB  
E/W/NSE: Kelton Street/Carriage Road  
City, State: Brighton, MA  
Client: HSH/ J. SanClemente

File Name : 112737 A2  
Site Code : TBA  
Start Date : 12/14/2011  
Page No : 1

Groups Printed- Trains

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Kelton Street From East					Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total		
	Right	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Right	Bear Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Bear Right	Thru	Left	Right	Bear Right	Thru	Bear Left	Left			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Kelton Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total
	Right	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	Left	App. Total	Right	Bear Right	Thru	Bear Left	Left	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM



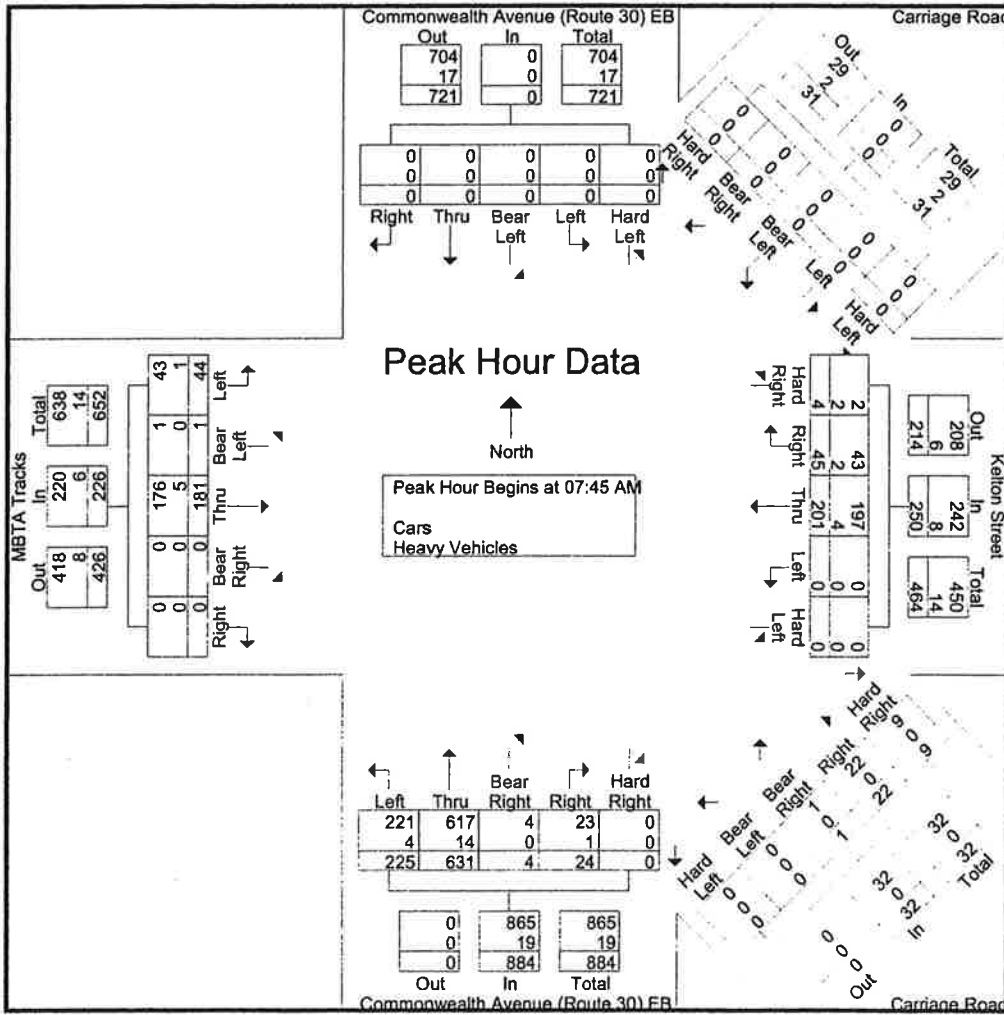


P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB  
 E/W/NSE: Kelton Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 A2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Kelton Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West								
	Rgt	Thru	Bear	Left	Hard	App.	Rgt	Thru	Bear	Left	Hard	App.	Rgt	Thru	Bear	Left	Hard	App.	Rgt	Thru	Bear	Left	Hard	App.	Rgt	Thru	Bear	Left	Hard	App.	Rgt	Thru	Bear	Left	Hard	App.			
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	3	58	0	0	63	4	8	1	0	0	13	0	16	2	183	64	245	0	0	52	0	10	62	383		
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	22	51	0	0	73	1	6	0	0	0	7	0	3	0	142	56	201	0	0	41	0	14	55	336		
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	51	0	0	55	2	7	0	0	0	9	0	3	1	161	63	228	0	0	49	1	9	59	351		
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	16	41	0	0	59	2	1	0	0	0	3	0	2	1	155	42	210	0	0	39	0	11	50	322		
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	4	45	201	0	0	250	9	22	1	0	0	32	0	24	4	631	225	884	0	0	161	1	44	226	1392		
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	1.6	18	80.4	0	0	250	28.1	68.8	3.1	0	0	32	0	2.7	0.5	71.4	25.5	884	0	0	60.1	0.4	19.5	226	1392		
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.11	0.02	0.00	0.00	0.58	0.43	0.04	0.01	0.00	0.00	0.15	0.00	0.18	0.01	0.02	0.03	0.02	0.02	0.00	0.00	0.03	0.00	0.01	0.01	0.02	0.00
Cars	0	0	0	0	0	0	0	0	0	0	0	0	2	43	197	0	0	242	9	22	1	0	0	32	0	23	4	617	221	865	0	0	176	1	43	220	1359		
% Cars	0	0	0	0	0	0	0	0	0	0	0	0	50.0	95.6	96.0	0	0	96.8	100	100	100	0	0	100	0	95.6	100	97.8	98.2	97.9	0	0	97.2	100	97.7	97.3	97.6		
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	8	0	0	0	0	0	0	0	1	0	14	4	19	0	0	5	0	1	6	33		
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	50.0	4.4	2.0	0	0	3.2	0	0	0	0	0	0	0	4.2	0	2.2	1.8	2.1	0	0	2.8	0	2.3	2.7	2.4		





PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB
E/W/NSW: Warren Street/Carriage Road
City, State: Brighton, MA
Client: HSH/ J. SanClemente

File Name : 112737 AA1
Site Code : TBA
Start Date : 12/14/2011
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Table with columns for Start Time, Approach (Commonwealth Avenue, MBTA Tracks, Carriage Road, Warren Street), and Volume (Hard Right, Right, Bear Right, Thru, Left, etc.). Includes Grand Total and % Cars/Heavy Vehicles.

Table for Peak Hour Analysis (04:00 PM to 05:45 PM). Includes columns for Start Time, Approach, Volume, and % App. Total. Includes sub-totals for Total Volume and % App. Total.





P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB  
 E/W/NSW: Warren Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/J. SanClemente

File Name : 112737 AA1  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Commonwealth Avenue (Route 30) WB From North					MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South					Carriage Road From Southwest					Warren Street From West					Carriage Road From Northwest					Int. Total
	Hard Right	Right	Bear Right	Thru	Left	Right	Bear Right	Thru	Bear Left	Left	Right	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Right	Bear Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Bear Right	Bear Left	Hard Left	
04:00 PM	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	1	2	0	0	0	9
04:15 PM	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5
04:30 PM	0	1	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
04:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
<b>Total</b>	0	1	0	4	0	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	1	4	0	0	0	22
05:00 PM	0	1	0	1	0	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	1	0	0	13
05:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	5
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
<b>Total</b>	0	1	0	4	0	0	0	5	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	5	1	0	0	21
<b>Grand Total</b>	0	2	0	8	0	0	0	12	0	3	0	0	0	0	0	0	0	0	0	0	1	1	3	0	0	3	9	1	0	0	43
Approch %	0	20	0	80	0	0	0	80	0	20	0	0	0	0	0	0	0	0	0	0	20	20	60	0	0	23.1	69.2	7.7	0	0	
Total %	0	4.7	0	18.8	0	0	0	27.9	0	7	0	0	0	0	0	0	0	0	0	0	2.3	2.3	7	0	0	7	20.9	2.3	0	0	

Start Time	Commonwealth Avenue (Route 30) WB From North							MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South							Carriage Road From Southwest					Warren Street From West					Carriage Road From Northwest							Int. Total						
	Hard Right	Right	Bear Right	Thru	Left	App. Total	Right	Bear Right	Thru	Bear Left	Left	App. Total	Right	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	App. Total							
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																											
Peak Hour for Entire Intersection Begins at 04:15 PM																																											
04:15 PM	0	0	0	0	0	0	0	0	2	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	5
04:30 PM	0	1	0	3	0	4	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
04:45 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
05:00 PM	0	1	0	1	0	2	0	0	5	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2	1	0	0	4	13						
<b>Total</b>	0	2	0	4	0	6	0	0	10	0	2	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	4	1	0	0	6	26						
% App. Time	33.3	0	0	0	0	0	0	0	83.3	0	16.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	16.7	66.7	16.7	0	0	0	37.5	500						
PHF	0.00	0.00	0.00	0.33	0.00	0.375	0.00	0.00	0.50	0.00	0.50	0.500	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.25	0.25	0.00	0.00	0.500	0.25	0.50	0.25	0.00	0.00	0.375	0.500						



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB  
 E/W/NSW: Warren Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 AA1  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Peds and Bicycles

Start Time	Commonwealth Avenue (Route 30) WB From North						MBTA Tracks From East						Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Warren Street From West						Carriage Road From Northwest						Int. Total
	Har d	Ri	Be	Th	Le	Pe	Ri	Be	Th	Be	Le	Pe	Ri	Th	Be	Le	Har d	Pe	Har d	Be	Be	Le	Har d	Pe	Har d	Ri	Th	Le	Har d	Pe	Har d	Ri	Be	Be	Har d	Pe	
04:00 PM	0	0	0	0	0	10	0	0	0	0	0	1	0	0	0	0	0	28	0	0	0	0	0	22	0	0	1	0	0	10	0	0	0	0	0	31	103
04:15 PM	0	0	4	1	0	2	0	0	1	0	0	0	0	0	0	0	0	27	0	0	0	0	0	28	0	1	0	0	0	17	0	1	0	0	0	7	89
<b>Total</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>75</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>77</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>44</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>73</b>	<b>314</b>
05:00 PM	0	0	0	0	0	17	0	0	3	0	0	1	0	0	0	0	0	50	0	0	0	0	0	50	4	0	3	0	0	46	0	0	0	0	0	38	212
05:30 PM	0	0	0	0	1	10	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	12	2	0	2	0	0	13	0	0	0	0	0	27	81
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>76</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>134</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>136</b>	<b>6</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>99</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>137</b>	<b>607</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>104</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>209</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>218</b>	<b>6</b>	<b>1</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>143</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>210</b>	<b>921</b>
<b>Approch %</b>	<b>0</b>	<b>0</b>	<b>3.8</b>	<b>0.9</b>	<b>0.9</b>	<b>94.5</b>	<b>0</b>	<b>0</b>	<b>61.8</b>	<b>0</b>	<b>0</b>	<b>19.2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>3.7</b>	<b>0.6</b>	<b>8.5</b>	<b>0</b>	<b>0</b>	<b>97.2</b>	<b>0</b>	<b>0.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>99.6</b>	
<b>Total %</b>	<b>0</b>	<b>0</b>	<b>0.4</b>	<b>0.1</b>	<b>0.1</b>	<b>11.3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0.2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23.5</b>	<b>0.7</b>	<b>0.1</b>	<b>1.5</b>	<b>0</b>	<b>0</b>	<b>15.8</b>	<b>0</b>	<b>0.1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22.8</b>	

Start Time	Commonwealth Avenue (Route 30) WB From North								MBTA Tracks From East								Commonwealth Avenue (Route 30) WB From South								Carriage Road From Southwest								Warren Street From West								Carriage Road From Northwest								Int. Total
	Har d	Ri	Be	Th	Le	Pe	App. Total	Ri	Be	Th	Be	Le	Pe	App. Total	Ri	Th	Be	Le	Har d	Pe	App. Total	Har d	Be	Be	Le	Har d	Pe	App. Total	Har d	Ri	Th	Le	Har d	Pe	App. Total	Har d	Ri	Be	Be	Har d	Pe	App. Total							
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																																	
Peak Hour for Entire Intersection Begins at 05:00 PM																																																	
05:00 PM	0	0	0	0	0	29	29	0	0	1	0	0	0	1	4	0	0	0	0	0	40	40	0	0	0	0	0	45	45	0	0	1	0	0	19	20	0	0	0	0	0	40	40	175					
05:15 PM	0	0	0	0	0	17	17	0	0	3	0	0	1	4	0	0	0	0	0	50	50	0	0	0	0	0	50	50	4	0	3	0	0	46	53	0	0	0	0	0	38	38	212						
05:30 PM	0	0	0	0	0	20	20	0	0	2	0	0	0	2	0	0	0	0	0	30	30	0	0	0	0	0	32	32	0	0	2	0	0	21	23	0	0	0	0	0	32	32	139						
05:45 PM	0	0	0	0	1	10	11	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	0	0	0	0	12	12	2	0	2	0	0	13	17	0	0	0	0	0	27	27	81						
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>76</b>	<b>77</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>134</b>	<b>134</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>139</b>	<b>139</b>	<b>6</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>99</b>	<b>113</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>137</b>	<b>137</b>	<b>607</b>						
<b>% App. Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.3</b>	<b>96.7</b>	<b>0</b>	<b>0</b>	<b>65.7</b>	<b>0</b>	<b>0</b>	<b>14.3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10.0</b>	<b>100.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10.0</b>	<b>100.0</b>	<b>5.3</b>	<b>0</b>	<b>7.1</b>	<b>0</b>	<b>0</b>	<b>87.6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10.0</b>	<b>100.0</b>									
<b>PHF</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.25</b>	<b>0.65</b>	<b>0.664</b>	<b>0.00</b>	<b>0.00</b>	<b>0.50</b>	<b>0.00</b>	<b>0.25</b>	<b>0.438</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.67</b>	<b>0.670</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.68</b>	<b>0.695</b>	<b>0.37</b>	<b>0.00</b>	<b>0.66</b>	<b>0.00</b>	<b>0.00</b>	<b>0.53</b>	<b>0.533</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.85</b>	<b>0.856</b>	<b>.718</b>							



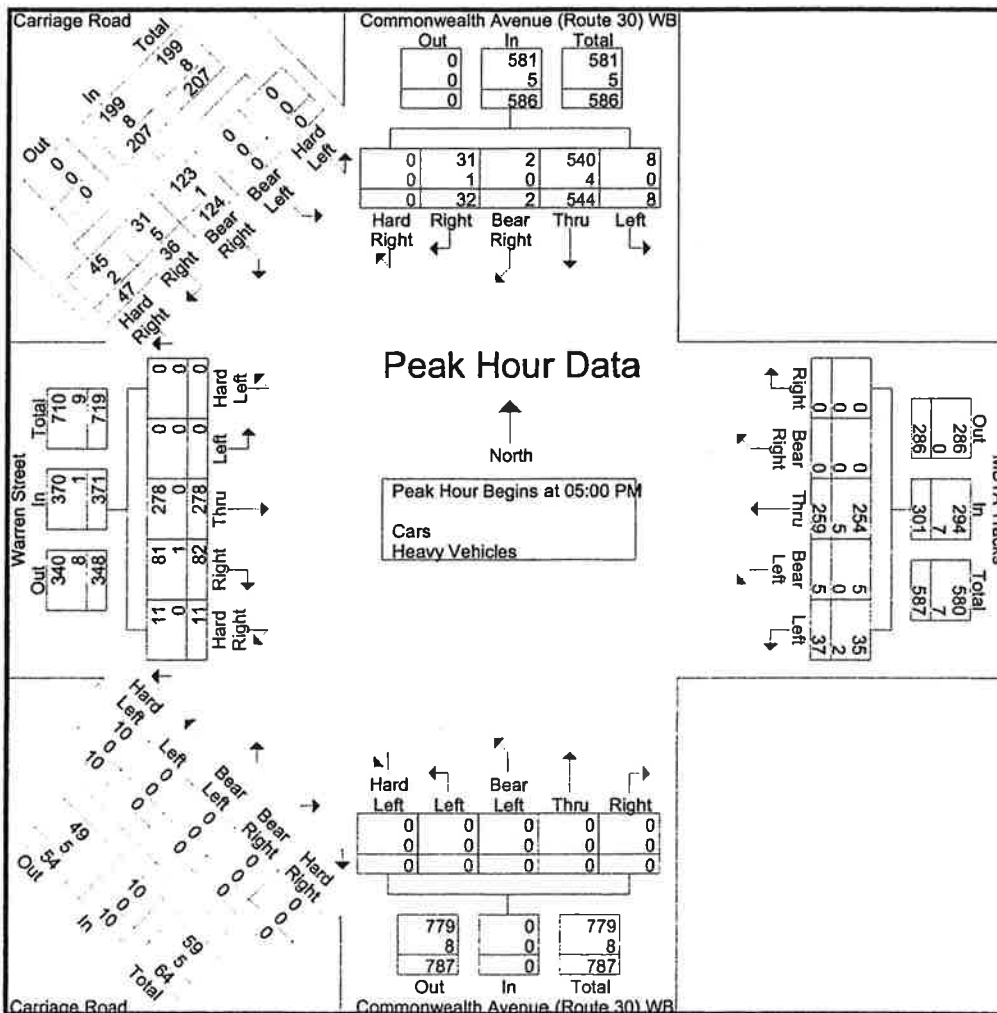


P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB  
 E/W/NSW: Warren Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 AA1  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Start Time	Commonwealth Avenue (Route 30) WB From North						MBTA Tracks From East						Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Warren Street From West						Carriage Road From Northwest						Int. Total																
	Har d R/L	Rig H	Bear r R/L	Thru	Left	App. Total	Rig H	Bear r R/L	Thru	Left	App. Total	Rig H	Thru	Bear r L/R	Left	Har d L/R	App. Total	Har d R/L	Bear r R/L	Bear r L/R	Left	Har d L/R	App. Total	Har d R/L	Rig H	Thru	Left	Har d L/R	App. Total	Har d R/L	Rig H	Bear r R/L	Bear r L/R	Har d L/R	App. Total																		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																																					
Peak Hour for Entire Intersection Begins at 05:00 PM																																																					
05:00 PM	0	11	0	134	2	147	0	0	64	1	13	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	32	61	0	0	96	10	8	29	0	0	47	371
05:15 PM	0	10	0	158	3	171	0	0	71	4	8	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2	23	71	0	0	96	12	10	42	0	0	64	417							
05:30 PM	0	2	0	120	1	123	0	0	65	0	12	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	5	16	87	0	0	108	15	6	32	0	0	53	364							
05:45 PM	0	9	2	132	2	145	0	0	59	0	4	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	11	59	0	0	71	10	12	21	0	0	43	323							
Total Volume	0	32	2	544	8	586	0	0	259	5	37	301	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	11	82	278	0	0	371	47	36	124	0	0	207	1475							
% App. Total	0	5.5	0.3	92.8	1.4		0	0	86	1.7	12.3																					100		3	22.1	74.9	0	0		22.7	17.4	59.9	0	0									
PHF	0.00	0.727	0.750	0.851	0.667	0.857	0.00	0.000	0.912	0.313	0.712	0.907	0.00	0.000	0.000	0.000	0.000	0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.833	0.833	0.550	0.841	0.792	0.000	0.000	0.859	0.783	0.750	0.738	0.000	0.000	0.809	0.894							
Cars	0	31	2	540	8	581	0	0	254	5	35	294	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	11	81	278	0	0	370	45	31	123	0	0	199	1454							
% Cars	0	96.9	100	99.3	100	99.1	0	0	86.1	100	94.8	97.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	100	96.8	100	0	0	99.7	96.7	86.1	99.2	0	0	96.1	98.8							
Heavy Vehicles	0	1	0	4	0	5	0	0	5	0	2	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	5	1	0	0	8	21							
% Heavy Vehicles	0	3.1	0	0.7	0	0.9	0	0	1.9	0	5.4	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2	0	0	0	0.3	4.3	13.9	0.8	0	0	3.9	1.4							





P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB  
 E/W/NSE: Kelton Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 AA2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Kelton Street From East					Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total
	Right	Thru	Beer Left	Left	Hard Left	Hard Right	Beer Right	Beer Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Beer Right	Beer Left	Hard Left	Hard Right	Right	Beer Right	Thru	Left	Right	Beer Right	Thru	Beer Left	Left	
04:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	45	0	0	2	2	0	1	0	0	4	2	57	25	0	0	59	1	6	208
04:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	40	0	0	0	1	0	0	0	0	2	2	91	17	0	0	33	1	8	197
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	50	0	0	1	7	0	0	0	0	4	1	108	24	0	0	65	0	7	266
04:45 PM	0	0	0	0	0	0	0	0	0	0	2	1	49	0	0	3	5	0	0	0	0	1	1	92	30	0	0	40	0	6	230
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>3</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>15</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>6</b>	<b>346</b>	<b>96</b>	<b>0</b>	<b>0</b>	<b>197</b>	<b>2</b>	<b>27</b>	<b>901</b>
05:00 PM	0	0	0	0	0	0	0	0	0	0	3	1	55	0	0	2	2	0	0	0	0	1	1	83	30	0	0	54	0	8	240
05:15 PM	0	0	0	0	0	0	0	0	0	0	5	3	62	0	0	2	1	0	0	0	0	0	2	80	21	0	0	67	1	7	251
05:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	46	0	0	4	2	0	0	0	0	7	2	92	28	0	0	75	1	9	270
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	42	0	0	1	5	0	0	0	0	6	3	97	20	0	0	56	0	6	237
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>5</b>	<b>205</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>8</b>	<b>352</b>	<b>99</b>	<b>0</b>	<b>0</b>	<b>252</b>	<b>2</b>	<b>30</b>	<b>998</b>
Grand Total	0	0	0	0	0	0	0	0	0	0	19	8	389	0	0	15	25	0	1	0	0	25	14	698	195	0	0	449	4	57	1899
Approch %	0	0	0	0	0	0	0	0	0	0	4.6	1.9	93.5	0	0	38.6	61	0	2.4	0	0	2.7	1.5	74.9	20.9	0	0	88	0.8	11.2	
Total %	0	0	0	0	0	0	0	0	0	0	1	0.4	20.5	0	0	0.8	1.3	0	0.1	0	0	1.3	0.7	36.8	10.3	0	0	23.6	0.2	3	
Cars	0	0	0	0	0	0	0	0	0	0	17	7	379	0	0	15	25	0	1	0	0	25	14	694	190	0	0	448	4	57	1874
% Cars	0	0	0	0	0	0	0	0	0	0	89.5	87.5	97.4	0	0	100	100	0	100	0	0	100	100	99.4	97.4	0	0	99.3	100	100	98.7
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	2	1	10	0	0	0	0	0	0	0	0	0	0	4	5	0	0	3	0	0	25
	0	0	0	0	0	0	0	0	0	0	10.5	12.5	2.6	0	0	0	0	0	0	0	0	0	0	0.6	2.6	0	0	0.7	0	0	1.3

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Kelton Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total
	Rig	Thru	Beer	Left	Hard	App.	Hard	Beer	Beer	Left	Hard	App.	Hard	Rig	Thru	Left	Hard	App.	Hard	Rig	Beer	Beer	Hard	App.	Hard	Rig	Beer	Thru	Left	App.	Rig	Beer	Thru	Beer	Left	App.	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	1	55	0	0	59	2	2	0	0	0	4	0	1	1	83	30	115	0	0	54	0	8	62	240	
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	5	3	62	0	0	70	2	1	0	0	0	3	0	0	2	80	21	103	0	0	67	1	7	75	251	
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	46	0	0	50	4	2	0	0	0	6	0	7	2	92	28	129	0	0	75	1	9	85	270	
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	42	0	0	43	1	5	0	0	0	6	0	6	3	97	20	126	0	0	56	0	6	62	237	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>5</b>	<b>205</b>	<b>0</b>	<b>0</b>	<b>222</b>	<b>9</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>14</b>	<b>8</b>	<b>352</b>	<b>99</b>	<b>473</b>	<b>0</b>	<b>0</b>	<b>252</b>	<b>2</b>	<b>30</b>	<b>284</b>	<b>998</b>		
% App. Total	0	0	0	0	0	0	0	0	0	0	5.4	2.3	93.3	0	0		47.4	52.8	0	0	0		0	3	1.7	74.4	20.9		0	0	88.7	0.7	10.6				
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.27	0.00	0.00	0.793	0.83	0.00	0.00	0.00	0.00	0.792	0.00	0.00	0.67	0.07	0.25	0.917	0.00	0.00	0.40	0.00	0.33	0.35	0.24		
Cars	0	0	0	0	0	0	0	0	0	0	11	5	200	0	0	216	9	10	0	0	0	19	0	14	8	349	97	468	0	0	252	2	30	284	987		
% Cars	0	0	0	0	0	0	0	0	0	0	91.7	100	97.6	0	0	97.3	100	100	0	0	0	100	0	100	100	99.1	98.0	98.9	0	0	100	100	100	100	98.9		
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	6	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	0	0	11		
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	8.3	0	2.4	0	0	2.7	0	0	0	0	0	0	0	0	0	0.9	2.0	1.1	0	0	0	0	0	0	1.1		





PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB
E/W/NSE: Kelton Street/Carriage Road
City, State: Brighton, MA
Client: HSH/ J. SanClemente

File Name : 112737 AA2
Site Code : TBA
Start Date : 12/14/2011
Page No : 1

Groups Printed- Cars

Table with columns for Start Time, Approach (Commonwealth Avenue, Carriage Road, Kelton Street, Carriage Road, Commonwealth Avenue, MBTA Tracks), and Volume (Right, Thru, Left, etc.). Includes a Grand Total row.

Table with columns for Start Time, Approach (Commonwealth Avenue, Carriage Road, Kelton Street, Carriage Road, Commonwealth Avenue, MBTA Tracks), and Volume (Right, Thru, Left, etc.). Includes a Total Volume row and a % App. Total row.



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB  
 E/W/NSE: Kelton Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 AA2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Kelton Street From East					Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total	
	Right	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Right	Bear Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Bear Right	Thru	Left	Right	Bear Right	Thru	Bear Left	Left		
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	8			
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2			
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>14</b>
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7			
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2		
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1			
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>25</b>
Apprch %	0	0	0	0	0	0	0	0	0	0	15.4	7.7	78.9	0	0	0	0	0	0	0	0	0	0	0	44.4	55.6	0	0	100	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	8	4	40	0	0	0	0	0	0	0	0	0	0	0	16	20	0	0	12	0	0	

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Kelton Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total
	Rig	Thru	Bear	Left	Hard	App.	Hard	Bear	Bear	Left	Hard	App.	Hard	Rig	Thru	Left	Hard	App.	Hard	Rig	Bear	Bear	Hard	App.	Hard	Rig	Bear	Thru	Left	App.	Rig	Bear	Thru	Bear	Left	App.	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 04:00 PM																																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	4	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	2	0	0	2	8
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>14</b>	
Volume	0	0	0	0	0	0	0	0	0	0	14.3	14.3	71.4	0	0	0	0	0	0	0	0	0	0	0	0	0	25	75	0	0	100	0	0	0	0		
% App. Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.500	2.500	12.500	0.000	0.000	4.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.500	7.500	5.000	0.000	0.000	3.750	0.000	0.000	3.750	4.375	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	1.250	0.000	0.000	0.438	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.375	0.500	0.000	0.000	0.375	0.000	0.000	0.375	0.438		



PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB
E/W/NSE: Kelton Street/Carriage Road
City, State: Brighton, MA
Client: HSH/ J. SanClemente

File Name : 112737 AA2
Site Code : TBA
Start Date : 12/14/2011
Page No : 1

Groups Printed- Peds and Bicycles

Table with columns for Start Time, Commonwealth Avenue (Route 30) EB From North, Carriage Road From Northeast, Kelton Street From East, Carriage Road From Southeast, Commonwealth Avenue (Route 30) EB From South, MBTA Tracks From West, and Int. Total. Rows include time intervals from 04:00 PM to 05:45 PM and Grand Total.

Table with columns for Start Time, Commonwealth Avenue (Route 30) EB From North, Carriage Road From Northeast, Kelton Street From East, Carriage Road From Southeast, Commonwealth Avenue (Route 30) EB From South, MBTA Tracks From West, and Int. Total. Includes Peak Hour Analysis and PHF (Peak Hour Factor) data.



PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdllc.com

Commonwealth Avenue (Route 30) EB

E/W/NSE: Kelton Street/Carriage Road

City, State: Brighton, MA

Client: HSH/ J. SanClemente

File Name : 112737 AA2

Site Code : TBA

Start Date : 12/14/2011

Page No : 1

Groups Printed- Trains

Table with columns for Start Time, Commonwealth Avenue (Route 30) EB From North, Carriage Road From Northeast, Kelton Street From East, Carriage Road From Southeast, Commonwealth Avenue (Route 30) EB From South, MBTA Tracks From West, and Int. Total. Rows include 04:00 PM, 04:15 PM, 04:30 PM, 04:45 PM, 05:00 PM, 05:15 PM, 05:30 PM, 05:45 PM, and Grand Total.

Table with columns for Start Time, Commonwealth Avenue (Route 30) EB From North, Carriage Road From Northeast, Kelton Street From East, Carriage Road From Southeast, Commonwealth Avenue (Route 30) EB From South, MBTA Tracks From West, and Int. Total. Includes Peak Hour Analysis and PHF (Peak Hour Factor) data.

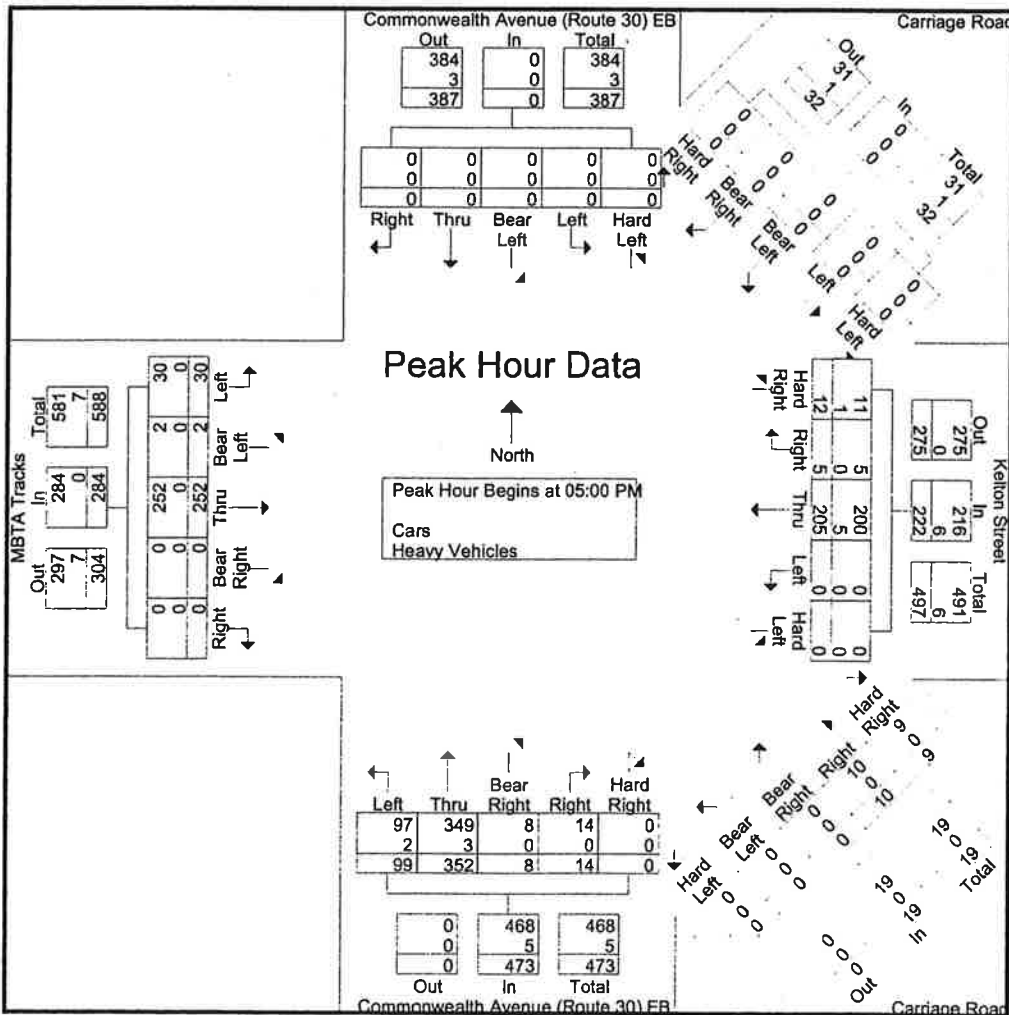


P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB  
E/W/NSE: Kelton Street/Carriage Road  
City, State: Brighton, MA  
Client: HSH/ J. SanClemente

File Name : 112737 AA2  
Site Code : TBA  
Start Date : 12/14/2011  
Page No : 1

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Kelton Street From East					Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					InL Total									
	Rig	Thru	Bear	Left	Hard	App.	Har	Bear	Bear	Left	Hard	App.	Har	Rig	Thru	Left	Hard	App.	Har	Rig	Bear	Bear	Left	Hard	App.	Har	Rig	Bear	Thru	Left		App.	Rig	Bear	Thru	Bear	Left	App.	InL	Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																								
Peak Hour for Entire Intersection Begins at 05:00 PM																																								
05:00 PM	0	0	0	0	0	0	0	0	0	0	3	1	55	0	0	59	2	2	0	0	0	4	0	1	1	83	30	115	0	0	54	0	8	62	240					
05:15 PM	0	0	0	0	0	0	0	0	0	0	5	3	62	0	0	70	2	1	0	0	0	3	0	0	2	80	21	103	0	0	67	1	7	75	251					
05:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	46	0	0	50	4	2	0	0	0	6	0	7	2	92	28	129	0	0	75	1	9	85	270					
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	42	0	0	43	1	5	0	0	0	6	0	6	3	97	20	126	0	0	56	0	6	62	237					
Total	0	0	0	0	0	0	0	0	0	0	12	5	205	0	0	222	9	10	0	0	0	19	0	14	8	352	99	473	0	0	252	2	30	284	998					
Volume	0	0	0	0	0	0	0	0	0	0	5.4	2.3	92.3	0	0	793	47.4	62.8	0	0	0	0	3	1.7	74.4	20.9	0	0	88.7	0.7	10.6	835	924							
% App. Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Cars	0	0	0	0	0	0	0	0	0	0	11	5	200	0	0	216	9	10	0	0	0	19	0	14	8	349	97	468	0	0	252	2	30	284	987					
% Cars	0	0	0	0	0	0	0	0	0	0	91.7	100	97.6	0	0	97.3	100	100	0	0	0	100	0	100	100	99.1	98.0	98.9	0	0	100	100	100	100	100	100	100	98.9		
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	6	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	0	11
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	8.3	0	2.4	0	0	2.7	0	0	0	0	0	0	0	0	0	0.9	2.0	1.1	0	0	0	0	0	0	0	0	0	0	1.1	





PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB
E/W/NSW: Washington St/Carriage Road
City, State: Brighton, MA
Client: HSH/ J. SanClemente

File Name : 112737 B1
Site Code : TBA
Start Date : 12/14/2011
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Table with columns for Start Time, Commonwealth Avenue (Route 30) WB From North, MBTA Tracks From East, Commonwealth Avenue (Route 30) WB From South, Carriage Road From Southwest, Washington Street From West, Carriage Road From Northwest, and Int. Total. Rows include time intervals from 07:00 AM to 08:45 AM and Grand Total.

Table with columns for Start Time, Commonwealth Avenue (Route 30) WB From North, MBTA Tracks From East, Commonwealth Avenue (Route 30) WB From South, Carriage Road From Southwest, Washington Street From West, Carriage Road From Northwest, and Int. Total. Includes Peak Hour Analysis and PHF (Peak Hour Factor) data.



PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB
E/W/NSW: Washington St/Carriage Road
City, State: Brighton, MA
Client: HSH/ J. SanClemente

File Name : 112737 B1
Site Code : TBA
Start Date : 12/14/2011
Page No : 1

Groups Printed- Cars

Table with columns for Start Time, Commonwealth Avenue (Route 30) WB From North, MBTA Tracks From East, Commonwealth Avenue (Route 30) WB From South, Carriage Road From Southwest, Washington Street From West, Carriage Road From Northwest, and Int. Total. Rows include time intervals from 07:00 AM to 08:45 AM and Grand Total.

Table with columns for Start Time, Commonwealth Avenue (Route 30) WB From North, MBTA Tracks From East, Commonwealth Avenue (Route 30) WB From South, Carriage Road From Southwest, Washington Street From West, Carriage Road From Northwest, and Int. Total. Includes Peak Hour Analysis and PHF (Peak Hour Factor) data.







P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

File Name : 112737 B1  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Commonwealth Avenue (Route 30) WB  
 v / NSW: Washington St/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

Groups Printed- Peds and Bicycles

Start Time	Commonwealth Avenue (Route 30) WB From North						MBTA Tracks From East						Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Washington Street From West						Carriage Road From Northwest						Infl. Total
	Har d R/ght	Righ t	Bea r R/ght	Thru	Left	Pe d	Righ t	Bea r R/ght	Thru	Bea r Lef t	Left	Pe d	Righ t	Thru	Bea r Lef t	Left	Har d Le ft	Pe d	Har d R/ght	Righ t	Thru	Left	Har d Le ft	Pe d	Har d R/ght	Righ t	Bea r R/ght	Bea r Lef t	Har d Le ft	Pe d							
07:00 AM	0	0	0	0	0	15	0	0	1	0	0	5	0	0	0	0	0	5	0	0	0	0	0	5	0	2	0	0	0	18	0	0	0	0	0	15	66
07:15 AM	0	0	0	0	0	43	0	0	3	0	0	11	0	0	0	0	0	28	0	0	0	0	0	28	0	0	0	0	0	15	0	0	0	0	0	43	171
07:45 AM	0	0	0	0	0	124	0	0	8	0	0	31	0	0	0	0	0	59	0	0	0	0	0	59	0	2	4	0	0	87	0	0	0	0	0	124	498
08:00 AM	0	0	0	0	0	56	0	0	0	0	0	8	0	0	0	0	0	18	0	0	0	0	0	18	0	0	3	0	0	13	0	0	0	0	0	56	172
08:30 AM	0	0	0	1	0	35	0	0	2	0	0	4	0	0	0	0	0	15	0	0	0	0	0	15	0	0	2	0	0	4	0	0	0	0	0	35	113
08:45 AM	0	0	0	1	0	168	0	0	0	0	0	168	0	0	0	0	0	168	0	0	0	0	0	168	0	0	0	0	0	168	0	0	0	0	0	168	618
Grand Total	0	0	0	1	0	282	0	0	12	0	0	68	0	0	0	0	0	147	0	0	0	0	0	147	0	2	11	0	1	143	0	0	0	0	0	282	1118
Approch %	0	0	0	0.3	0	99.7	0	0	15	0	0	85	0	0	0	0	0	100	0	0	0	0	0	100	0	1.3	7	0	0.6	91.1	0	0	0	0	0	100	
Total %	0	0	0	0.1	0	28.2	0	0	1.1	0	0	6.1	0	0	0	0	0	13.2	0	0	0	0	0	13.2	0	0.2	1	0	0.1	12.8	0	0	0	0	0	28.2	

Start Time	Commonwealth Avenue (Route 30) WB From North							MBTA Tracks From East							Commonwealth Avenue (Route 30) WB From South							Carriage Road From Southwest							Washington Street From West							Carriage Road From Northwest							Infl. Total
	Har d R/ght	Righ t	Bea r R/ght	Thru	Left	Pe d	App. Tota l	R/ght	Bea r R/ght	Thru	Bea r Lef t	Left	Pe d	App. Tota l	R/ght	Thru	Bea r Lef t	Left	Har d Le ft	Pe d	App. Tota l	Har d R/ght	Righ t	Thru	Left	Har d Le ft	Pe d	App. Tota l	Har d R/ght	Righ t	Bea r R/ght	Bea r Lef t	Har d Le ft	Pe d	App. Tota l								
07:30 AM	0	0	0	0	0	43	43	0	0	3	0	0	11	14	0	0	0	0	0	28	28	0	0	0	0	0	15	15	0	0	0	0	0	43	43	171							
07:45 AM	0	0	0	0	0	41	41	0	0	1	0	0	3	4	0	0	0	0	0	14	14	0	0	0	0	0	19	21	0	0	0	0	0	41	41	135							
08:00 AM	0	0	0	0	0	41	41	0	0	1	0	0	10	11	0	0	0	0	0	30	30	0	0	0	0	0	20	21	0	0	0	0	0	41	41	174							
08:15 AM	0	0	0	0	0	56	56	0	0	0	0	0	8	8	0	0	0	0	0	18	18	0	0	0	0	0	13	16	0	0	0	0	0	56	56	172							
Total	0	0	0	0	0	181	181	0	0	5	0	0	32	37	0	0	0	0	0	90	90	0	0	6	0	0	67	73	0	0	0	0	0	181	181	652							
% App.	0	0	0	0	0	10	10	0	0	13.	0	0	86.	86.	0	0	0	0	0	10	10	0	0	8.2	0	0	81.	81.	0	0	0	0	0	10	10								
PHF	.00	.00	.00	.00	.00	.80	.808	.00	.00	.41	.00	.00	.72	.661	.00	.00	.00	.00	.00	.76	.750	.00	.00	.50	.00	.00	.83	.688	.00	.00	.00	.00	.00	.80	.808	.897							

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB

W/NSW: Washington St/Carriage Road

City, State: Brighton, MA

Client: HSH/ J. SanClemente

File Name : 112737 B1  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Trains

Start Time	Commonwealth Avenue (Route 30) WB From North					MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South					Carriage Road From Southwest					Washington Street From West					Carriage Road From Northwest					Int. Total				
	Hard Right	Right	Bear Right	Thru	Left	Right	Bear Right	Thru	Bear Left	Left	Right	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Right	Bear Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Bear Right	Bear Left	Hard Left					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Commonwealth Avenue (Route 30) WB From North						MBTA Tracks From East						Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Washington Street From West						Carriage Road From Northwest						Int. Total
	Hard Right	Right	Bear Right	Thru	Left	App. Total	Right	Bear Right	Thru	Bear Left	Left	App. Total	Right	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	App. Total	
07:00 AM	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0	0.000		
07:15 AM	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0	0.000		
07:30 AM	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0	0.000		
07:45 AM	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0	0.000		
Total Volume	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0	0.000		
% App. Total	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0	0.000		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

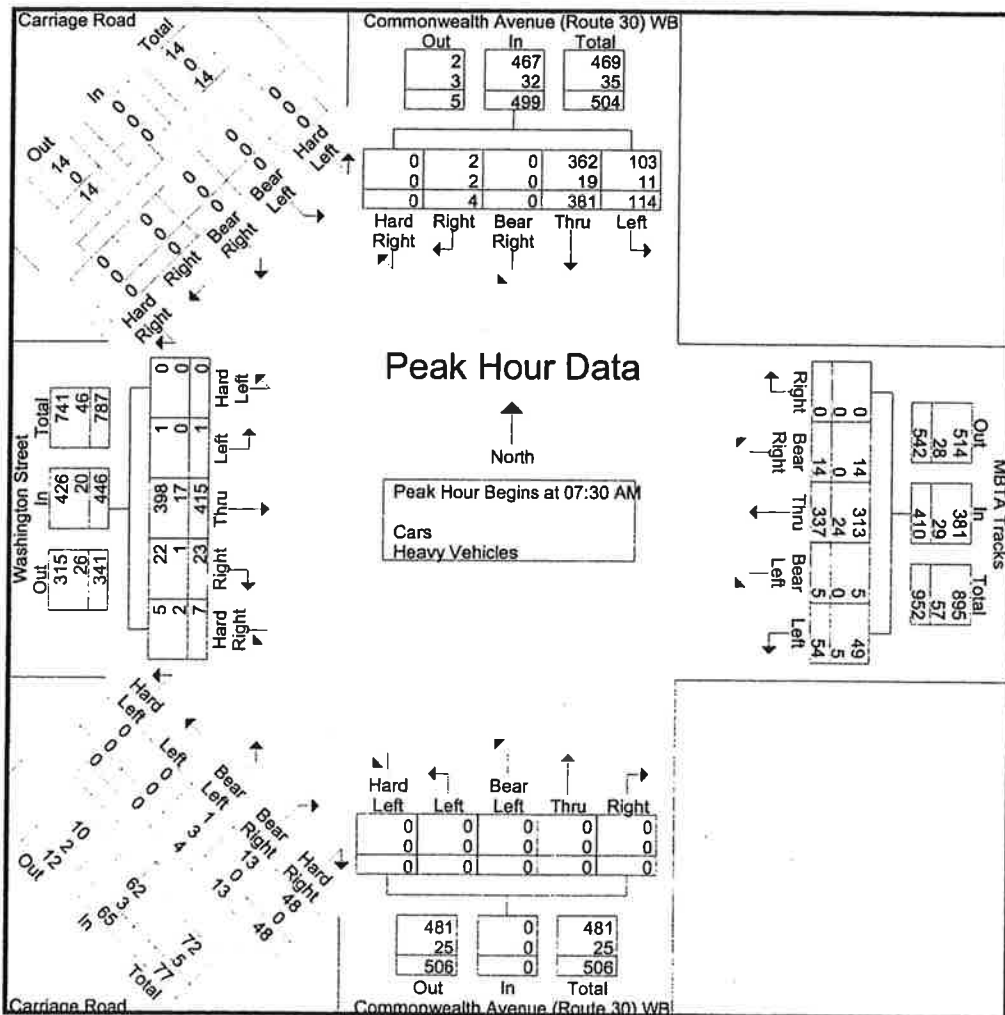


P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdilic.com

File Name : 112737 B1  
Site Code : TBA  
Start Date : 12/14/2011  
Page No : 1

Commonwealth Avenue (Route 30) WB  
NSW: Washington St/Carriage Road  
City, State: Brighton, MA  
Client: HSH/ J. SanClemente

Start Time	Commonwealth Avenue (Route 30) WB From North						MBTA Tracks From East						Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Washington Street From West						Carriage Road From Northwest						Int. Total					
	Har	Rig	Bear	Thru	Left	App. Total	Rig	Bear	Thru	Left	App. Total	Rig	Thru	Bear	Left	App. Total	Har	Bear	Bear	Left	Har	App. Total	Har	Rig	Thru	Left	Har	App. Total	Har	Rig	Bear	Thru	Har	App. Total								
07:30 AM	0	0	0	104	37	141	0	0	92	1	11	104	0	0	0	0	0	19	2	1	0	0	22	1	3	97	0	0	101	0	0	0	0	0	0	0	0	0	0	0	0	368
07:45 AM	0	0	0	95	31	126	0	6	95	1	10	112	0	0	0	0	0	15	4	2	0	0	21	3	9	103	1	0	116	0	0	0	0	0	0	0	0	0	0	0	0	375
08:00 AM	0	3	0	92	23	118	0	3	77	2	15	97	0	0	0	0	0	7	4	1	0	0	12	2	7	117	0	0	126	0	0	0	0	0	0	0	0	0	0	0	0	353
08:15 AM	0	1	0	90	23	114	0	5	73	1	18	97	0	0	0	0	0	7	3	0	0	0	10	1	4	98	0	0	103	0	0	0	0	0	0	0	0	0	0	0	0	324
Total Volume	0	4	0	381	114	499	0	14	337	5	54	410	0	0	0	0	0	48	13	4	0	0	65	7	23	415	1	0	446	0	0	0	0	0	0	0	0	0	0	0	0	1420
% App. Total	0	0.8	0	76.4	22.8		0	3.4	82.2	1.2	13.2		0	0	0	0	0	73.8	20	6.2	0	0		1.8	5.2	93	0.2	0		0	0	0	0	0	0							
PHF	0.000	0.333	0.000	0.116	0.270	0.885	0.000	0.583	0.887	0.025	0.750	0.915	0.000	0.000	0.000	0.000	0.000	0.632	0.113	0.500	0.000	0.000	0.739	0.583	0.838	0.847	0.250	0.000	0.885	0.000	0.000	0.000	0.000	0.000	0.000	0.947						
Cars	0	2	0	362	103	467	0	14	313	5	49	381	0	0	0	0	0	48	13	1	0	0	62	5	22	398	1	0	426	0	0	0	0	0	0	0	0	0	0	0	0	1338
% Cars	0	50.0	0	95.0	90.4	93.6	0	100	82.9	100	90.7	92.9	0	0	0	0	0	100	100	25.0	0	0	95.4	71.4	95.7	95.9	100	0	95.5	0	0	0	0	0	0	94.1						
Heavy Vehicles	0	2	0	19	11	32	0	0	24	0	5	29	0	0	0	0	0	0	0	3	0	0	3	2	1	17	0	0	20	0	0	0	0	0	0	84						
% Heavy Vehicles	0	50.0	0	5.0	9.6	6.4	0	0	7.1	0	9.3	7.1	0	0	0	0	0	0	0	75.0	0	0	4.6	28.8	4.3	4.1	0	0	4.5	0	0	0	0	0	0	5.9						





PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdill.com

Commonwealth Avenue (Route 30) EB  
/NSE: Washington Street/Carriage Road  
City, State: Brighton, MA  
Client: HSH/ J. SanClemente

File Name : 112737 B2  
Site Code : TBA  
Start Date : 12/14/2011  
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Table with columns for Start Time, Approach (Commonwealth Avenue, Carriage Road, Washington Street, Carriage Road, Commonwealth Avenue, MBTA Tracks), and various traffic counts (Right, Thru, Left, etc.) and percentages.

Table with columns for Start Time, Approach (Commonwealth Avenue, Carriage Road, Washington Street, Carriage Road, Commonwealth Avenue, MBTA Tracks), and various traffic counts (Right, Thru, Left, etc.) and percentages, including a PHF row.



PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB  
/NSE: Washington Street/Carriage Road  
City, State: Brighton, MA  
Client: HSH/ J. SanClemente

File Name : 112737 B2  
Site Code : TBA  
Start Date : 12/14/2011  
Page No : 1

Groups Printed- Cars

Table with columns for Start Time, Commonwealth Avenue (Route 30) EB From North, Carriage Road From Northeast, Washington Street From East, Carriage Road From Southeast, Commonwealth Avenue (Route 30) EB From South, MBTA Tracks From West, and Int. Total. Rows include time intervals from 07:00 AM to 08:45 AM and Grand Total.

Table with columns for Start Time, Commonwealth Avenue (Route 30) EB From North, Carriage Road From Northeast, Washington Street From East, Carriage Road From Southeast, Commonwealth Avenue (Route 30) EB From South, MBTA Tracks From West, and Int. Total. Includes Peak Hour Analysis and PHF (Peak Hour Factor) data.



PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB
/NSE: Washington Street/Carriage Road
City, State: Brighton, MA
Client: HSH/ J. SanClemente

File Name : 112737 B2
Site Code : TBA
Start Date : 12/14/2011
Page No : 1

Groups Printed- Heavy Vehicles

Table with columns for Start Time, Approach (Commonwealth Avenue, Carriage Road, Washington Street, Carriage Road, Commonwealth Avenue, MBTA Tracks), and Volume (Right, Thru, Bear Left, Left, Hard Left, Hard Right, Bear Right, Bear Left, Left, Hard Left, Hard Right, Right, Bear Right, Bear Left, Left, Hard Left, Hard Right, Right, Bear Right, Bear Left, Left, Hard Left, Hard Right, Right, Bear Right, Bear Left, Left, Int. Total). Rows include time intervals from 07:00 AM to 08:45 AM and Grand Total.

Table with columns for Start Time, Approach (Commonwealth Avenue, Carriage Road, Washington Street, Carriage Road, Commonwealth Avenue, MBTA Tracks), and Volume (Rig, Thru, Bear Left, Left, Hard Left, App. Total, Hard Right, Bear Right, Bear Left, Left, Hard Left, App. Total, Hard Right, Rig, Thru, Left, Hard Left, App. Total, Hard Right, Rig, Thru, Left, Hard Left, App. Total, Hard Right, Rig, Thru, Left, Hard Left, App. Total, Rig, Thru, Left, Hard Left, App. Total, Int. Total). Includes Peak Hour Analysis and PHF (Peak Hour Factor) data.



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdilic.com

File Name : 112737 B2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Commonwealth Avenue (Route 30) EB  
 /NSE: Washington Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

Groups Printed- Peds and Bicycles

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Washington Street From East					Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total
	Rght	Thru	Be r Lef	Le ft	Har d Le	Har d RI	Be r RI	Be r Lef	Le ft	Har d Le	Har d RI	Rght	Thru	Le ft	Har d Le	Har d RI	Rght	Be r RI	Be r Lef	Har d Le	Har d RI	Rght	Be r RI	Thru	Le ft	Rght	Be r RI	Thru	Be r Lef	Le ft	
07:00 AM	0	0	0	0	18	0	0	0	0	18	0	0	0	0	10	0	0	0	0	14	0	0	0	3	14	0	0	3	0	6	86
07:15 AM	0	0	0	0	54	0	0	0	0	54	0	0	3	0	13	0	0	0	0	22	0	0	0	0	22	0	0	0	0	7	175
07:30 AM	0	0	0	0	54	0	0	0	0	54	0	0	3	0	13	0	0	0	0	22	0	0	0	0	22	0	0	0	0	7	175
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>138</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>138</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>30</b>	<b>513</b>
08:00 AM	0	0	0	0	39	0	0	0	0	39	0	0	0	0	19	2	0	0	0	14	0	0	0	4	14	0	0	4	2	9	148
08:15 AM	0	0	0	0	39	0	0	0	0	39	0	0	0	0	19	2	0	0	0	14	0	0	0	4	14	0	0	4	2	9	148
08:30 AM	0	0	0	0	36	0	0	0	0	36	0	0	2	0	16	2	2	0	0	11	0	0	1	3	11	0	0	3	0	7	130
08:45 AM	0	0	0	0	36	0	0	0	0	36	0	0	2	0	16	2	2	0	0	11	0	0	1	3	11	0	0	3	0	7	130
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>154</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>154</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>57</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>63</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>3</b>	<b>33</b>	<b>562</b>
Grand Total	0	0	0	0	282	0	0	0	0	282	0	0	10	0	114	5	6	0	0	127	0	0	1	16	127	0	0	16	3	63	1076
Apprch %	0	0	0	0	100	0	0	0	0	100	0	0	8.1	0	91.8	3.6	4.3	0	0	92	0	0	0.7	10.9	86.4	0	0	19.5	3.7	76.8	
Total %	0	0	0	0	27.2	0	0	0	0	27.2	0	0	0.9	0	10.6	0.5	0.8	0	0	11.8	0	0	0.1	1.5	11.8	0	0	1.5	0.3	5.9	

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Washington Street From East					Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total					
	Rght	Thru	Be r Lef	Le ft	Pa ds	Har d RI	Be r RI	Be r Lef	Le ft	Pa ds	Har d RI	Rght	Thru	Le ft	Pa ds	Har d RI	Rght	Be r RI	Be r Lef	Pa ds	Har d RI	Rght	Be r RI	Thru	Le ft	Rght	Be r RI	Thru	Be r Lef	Le ft						
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																				
Peak Hour for Entire Intersection Begins at 07:30 AM																																				
07:30 AM	0	0	0	0	54	0	0	0	0	54	0	0	3	0	13	16	0	0	0	0	22	22	0	0	0	0	22	22	0	0	0	0	7	7	175	
07:45 AM	0	0	0	0	50	0	0	0	0	50	0	0	0	0	28	25	0	0	0	0	15	15	0	0	0	1	15	16	0	0	1	0	5	6	162	
08:00 AM	0	0	0	0	45	0	0	0	0	45	0	0	0	0	12	13	0	1	0	0	24	25	0	0	0	1	24	25	0	0	1	0	10	11	164	
08:15 AM	0	0	0	0	39	0	0	0	0	39	0	0	0	0	19	19	2	0	0	0	14	16	0	0	0	4	2	14	20	0	0	4	2	9	15	148
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>188</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>188</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>69</b>	<b>73</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>76</b>	<b>78</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>75</b>	<b>83</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>31</b>	<b>39</b>	<b>649</b>
% App.	0	0	0	0	10	0	0	0	0	10	0	0	5.5	0	94.	5	2.6	1.3	0	0	96.	2	0	0	0	6	3.6	90.	4	0	0	12.	7.7	76.		
<b>PHF</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.87</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.87</b>	<b>.00</b>	<b>.00</b>	<b>.33</b>	<b>.00</b>	<b>.59</b>	<b>.730</b>	<b>.26</b>	<b>.25</b>	<b>.00</b>	<b>.00</b>	<b>.78</b>	<b>.780</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.31</b>	<b>.37</b>	<b>.78</b>	<b>.830</b>	<b>.00</b>	<b>.00</b>	<b>.31</b>	<b>.37</b>	<b>.77</b>	<b>.850</b>	<b>.927</b>



PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB
/NSE: Washington Street/Carriage Road
City, State: Brighton, MA
Client: HSH/ J. SanClemente

File Name : 112737 B2
Site Code : TBA
Start Date : 12/14/2011
Page No : 1

Groups Printed- Trains

Table with columns for Start Time, Commonwealth Avenue (Route 30) EB From North, Carriage Road From Northeast, Washington Street From East, Carriage Road From Southeast, Commonwealth Avenue (Route 30) EB From South, MBTA Tracks From West, and Int. Total. Rows include time intervals from 07:00 AM to 08:45 AM and Grand Total.

Table with columns for Start Time, Commonwealth Avenue (Route 30) EB From North, Carriage Road From Northeast, Washington Street From East, Carriage Road From Southeast, Commonwealth Avenue (Route 30) EB From South, MBTA Tracks From West, and Int. Total. Includes Peak Hour Analysis and PHF (Peak Hour Factor) data.



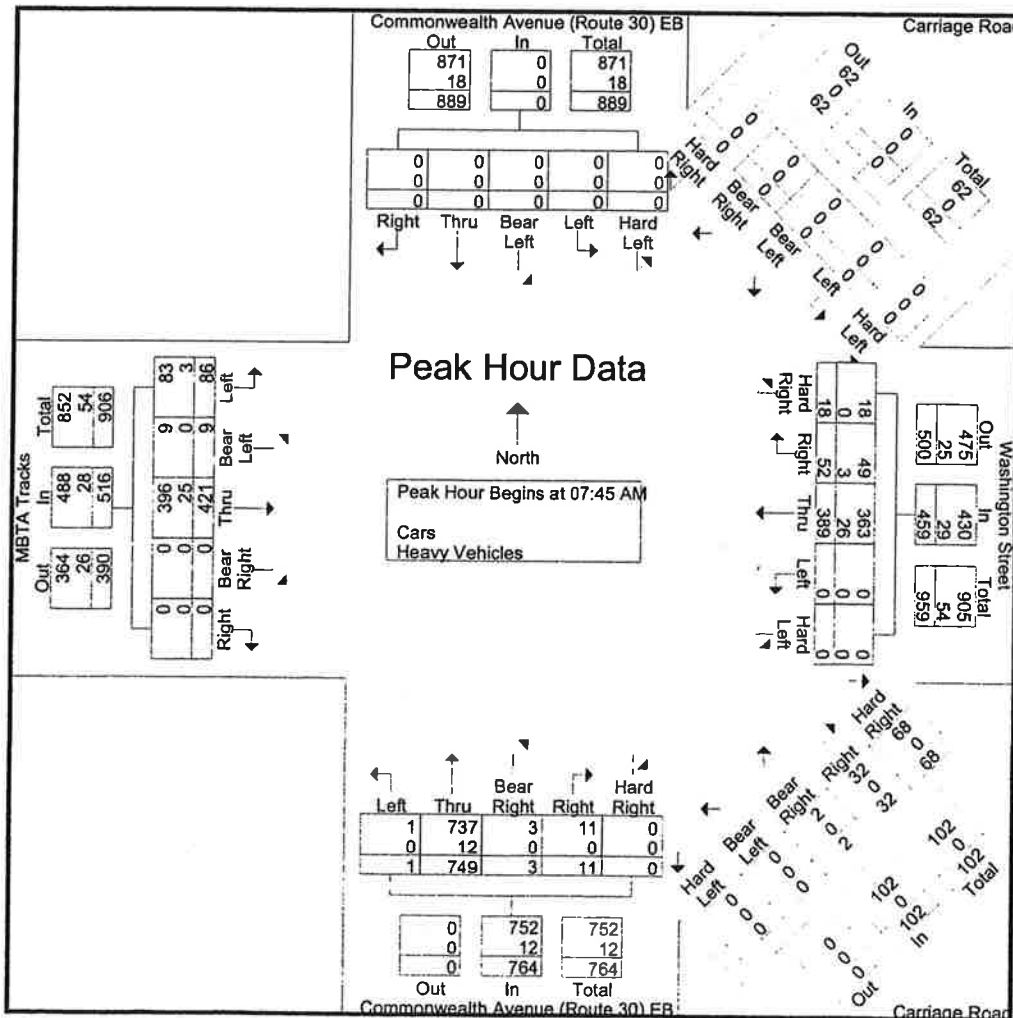


P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

File Name : 112737 B2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Commonwealth Avenue (Route 30) EB  
 /NSE: Washington Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Washington Street From East					Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total				
	Rig	Thru	Bear	Left	App.	Rig	Thru	Bear	Left	App.	Rig	Thru	Bear	Left	App.	Rig	Thru	Bear	Left	App.	Rig	Thru	Bear	Left	App.	Rig	Thru	Bear	Left	App.		Rig	Thru	Bear	Left
07:45 AM	0	0	0	0	0	0	0	0	0	0	6	16	106	0	0	13	5	0	0	0	0	1	1	202	1	205	0	0	112	2	21	135	486		
08:00 AM	0	0	0	0	0	0	0	0	0	0	5	12	95	0	0	15	9	0	0	0	24	0	5	0	104	0	189	0	0	115	1	26	142	467	
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	14	95	0	0	22	12	1	0	0	35	0	1	0	177	0	178	0	0	101	5	19	125	449	
08:30 AM	0	0	0	0	0	0	0	0	0	0	5	10	93	0	0	18	6	1	0	0	25	0	4	2	186	0	192	0	0	93	1	20	114	439	
Total Volume	0	0	0	0	0	0	0	0	0	0	18	52	389	0	0	68	32	2	0	0	102	0	11	3	748	1	764	0	0	421	9	86	516	1841	
% App. Total	0	0	0	0	0	0	0	0	0	0	3.8	11.3	84.7	0	0	86.7	31.4	2	0	0	0	1.4	0.4	98	0.1	0	0	81.8	1.7	16.7					
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.50	81.3	81.7	0.000	0.000	7.73	68.7	500	0.000	0.000	7.29	0.000	550	3.75	9.27	250	9.32	0.000	0.000	81.8	1.7	16.7	9.08	9.47	
Cars	0	0	0	0	0	0	0	0	0	0	18	49	363	0	0	68	32	2	0	0	102	0	11	3	737	1	752	0	0	398	9	83	488	1772	
% Cars	0	0	0	0	0	0	0	0	0	0	100	94.2	93.3	0	0	93.7	100	100	100	0	100	0	100	100	98.4	100	98.4	0	0	94.1	100	96.5	94.6	96.3	
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	3	26	0	0	29	0	0	0	0	0	0	0	0	12	0	12	0	0	25	0	3	28	69	
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	5.8	6.7	0	0	6.3	0	0	0	0	0	0	0	0	1.6	0	1.6	0	0	5.9	0	3.5	5.4	3.7	





PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB  
/NSW: Washington St/Carriage Road  
City, State: Brighton, MA  
Client: HSH/ J. SanClemente

File Name : 112737 BB1  
Site Code : TBA  
Start Date : 12/14/2011  
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Table with columns for Start Time, Approach (Commonwealth Avenue, MBTA Tracks, etc.), and Volume (Hard Right, Right, Bear Right, Thru, Left, etc.). Rows include time intervals from 04:00 PM to 05:45 PM and Grand Total.

Table with columns for Start Time, Approach, and Volume. Includes sub-sections for Peak Hour Analysis (04:00 PM to 05:45 PM) and PHF (Peak Hour Factor).



P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB

Approach: Washington St/Carriage Road

City, State: Brighton, MA

Client: HSH/ J. SanClemente

File Name : 112737 BB1

Site Code : TBA

Start Date : 12/14/2011

Page No : 1

Groups Printed- Cars

Start Time	Commonwealth Avenue (Route 30) WB From North					MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South					Carriage Road From Southwest					Washington Street From West					Carriage Road From Northwest					Int. Total
	Hard Right	Right	Beer Right	Thru	Left	Right	Beer Right	Thru	Beer Left	Left	Right	Thru	Beer Left	Left	Hard Left	Hard Right	Beer Right	Beer Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Beer Right	Beer Left	Hard Left	
04:00 PM	0	1	0	118	34	0	6	62	2	12	0	0	0	0	0	0	0	0	0	0	5	2	87	0	0	10	3	0	0	0	342
04:15 PM	0	1	0	113	37	0	1	65	2	13	0	0	0	0	0	0	0	0	0	0	6	4	93	0	0	7	4	1	1	0	348
04:30 PM	0	0	0	121	41	0	6	73	0	17	0	0	0	0	0	0	0	0	0	0	2	5	99	0	0	3	7	0	0	0	374
04:45 PM	0	1	0	116	34	0	3	72	2	16	0	0	0	0	0	0	0	0	0	0	1	9	92	0	0	8	1	0	2	0	357
<b>Total</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>468</b>	<b>148</b>	<b>0</b>	<b>16</b>	<b>272</b>	<b>6</b>	<b>58</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>20</b>	<b>371</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>15</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>1421</b>
05:00 PM	0	1	0	155	38	0	1	75	4	12	0	0	0	0	0	0	0	0	0	0	3	6	101	0	1	8	2	0	1	0	408
05:15 PM	0	0	1	168	39	0	1	79	3	17	0	0	0	0	0	0	0	0	0	0	2	7	113	0	1	9	4	0	0	0	444
05:30 PM	0	0	0	160	47	0	3	80	2	13	0	0	0	0	0	0	0	0	0	0	2	12	105	0	0	9	9	1	1	0	444
05:45 PM	0	2	0	142	40	0	1	75	5	12	0	0	0	0	0	0	0	0	0	0	1	6	103	0	0	13	5	0	0	0	405
<b>Total</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>625</b>	<b>164</b>	<b>0</b>	<b>6</b>	<b>309</b>	<b>14</b>	<b>54</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>31</b>	<b>422</b>	<b>0</b>	<b>2</b>	<b>39</b>	<b>20</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>1701</b>
Grand Total	0	6	1	1093	310	0	22	581	20	112	0	0	0	0	0	0	0	0	0	0	22	51	793	0	2	67	35	2	5	0	3122
Approch %	0	0.4	0.1	77.5	22	0	3	79	2.7	15.2	0	0	0	0	0	0	0	0	0	0	2.5	5.9	91.4	0	0.2	81.5	32.1	1.8	4.6	0	
Total %	0	0.2	0	35	9.9	0	0.7	18.6	0.6	3.6	0	0	0	0	0	0	0	0	0	0	0.7	1.6	25.4	0	0.1	2.1	1.1	0.1	0.2	0	

Start Time	Commonwealth Avenue (Route 30) WB From North						MBTA Tracks From East						Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Washington Street From West						Carriage Road From Northwest						Int. Total
	Hard Right	Right	Beer Right	Thru	Left	App. Total	Right	Beer Right	Thru	Beer Left	Left	App. Total	Right	Thru	Beer Left	Left	Hard Left	App. Total	Hard Right	Beer Right	Beer Left	Left	Hard Left	App. Total	Hard Right	Right	Beer Right	Beer Left	Hard Left	App. Total							
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 05:00 PM																																					
05:00 PM	0	1	0	155	38	194	0	1	75	4	12	92	0	0	0	0	0	0	0	0	0	0	0	0	3	6	101	0	1	111	8	2	0	1	0	11	408
05:15 PM	0	0	1	168	39	208	0	1	79	3	17	100	0	0	0	0	0	0	0	0	0	0	0	0	2	7	113	0	1	123	9	4	0	0	0	13	444
05:30 PM	0	0	0	160	47	207	0	3	80	2	13	98	0	0	0	0	0	0	0	0	0	0	0	0	2	12	105	0	0	119	9	9	1	1	0	20	444
05:45 PM	0	2	0	142	40	184	0	1	75	5	12	93	0	0	0	0	0	0	0	0	0	0	0	0	1	6	103	0	0	110	13	5	0	0	0	18	405
<b>Total Volume</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>625</b>	<b>164</b>	<b>793</b>	<b>0</b>	<b>6</b>	<b>309</b>	<b>14</b>	<b>54</b>	<b>383</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>31</b>	<b>422</b>	<b>0</b>	<b>2</b>	<b>463</b>	<b>39</b>	<b>20</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>62</b>	<b>1701</b>
<b>% App. Total</b>	<b>0</b>	<b>0.4</b>	<b>0.1</b>	<b>77.5</b>	<b>20.7</b>		<b>0</b>	<b>1.6</b>	<b>80.7</b>	<b>3.7</b>	<b>14.1</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.7</b>	<b>6.7</b>	<b>91.1</b>	<b>0</b>	<b>0.4</b>		<b>82.9</b>	<b>32.3</b>	<b>1.8</b>	<b>3.2</b>	<b>0</b>		
<b>PHF</b>	<b>0.000</b>	<b>0.375</b>	<b>0.250</b>	<b>0.320</b>	<b>0.772</b>	<b>0.953</b>	<b>0.000</b>	<b>0.500</b>	<b>0.966</b>	<b>0.700</b>	<b>0.794</b>	<b>0.958</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.667</b>	<b>0.648</b>	<b>0.934</b>	<b>0.000</b>	<b>0.500</b>	<b>0.941</b>	<b>0.750</b>	<b>0.556</b>	<b>0.250</b>	<b>0.500</b>	<b>0.000</b>	<b>0.775</b>	<b>0.958</b>



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

File Name : 112737 BB1  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Commonwealth Avenue (Route 30) WB  
 NSW: Washington St/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

Groups Printed- Heavy Vehicles

Start Time	Commonwealth Avenue (Route 30) WB From North					MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South					Carriage Road From Southwest					Washington Street From West					Carriage Road From Northwest					Inf. Total				
	Hard Right	Right	Beer Right	Thru	Left	Right	Beer Right	Thru	Beer Left	Left	Right	Thru	Beer Left	Left	Hard Left	Hard Right	Beer Right	Beer Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Beer Right	Beer Left	Hard Left					
04:00 PM	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	7
04:15 PM	0	2	0	3	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	13
04:30 PM	0	0	5	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
04:45 PM	0	0	0	1	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	8
<b>Total</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>36</b>				
05:00 PM	0	0	0	1	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	8
05:15 PM	0	0	0	0	1	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	10
05:30 PM	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	5
05:45 PM	0	0	0	0	1	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	7
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>				
<b>Grand Total</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>66</b>				
<b>Apprch %</b>	<b>0</b>	<b>9.5</b>	<b>23.8</b>	<b>33.3</b>	<b>33.3</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>0</b>					
<b>Total %</b>	<b>0</b>	<b>3</b>	<b>7.6</b>	<b>10.6</b>	<b>10.6</b>	<b>0</b>	<b>0</b>	<b>33.3</b>	<b>0</b>	<b>4.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22.7</b>	<b>0</b>	<b>0</b>	<b>4.5</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>					

Start Time	Commonwealth Avenue (Route 30) WB From North						MBTA Tracks From East						Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Washington Street From West						Carriage Road From Northwest						Inf. Total						
	Hard Right	Right	Beer Right	Thru	Left	App. Total	Right	Beer Right	Thru	Beer Left	Left	App. Total	Right	Thru	Beer Left	Left	Hard Left	App. Total	Hard Right	Beer Right	Beer Left	Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	Hard Left	App. Total	Hard Right	Beer Right	Beer Left	Hard Left	App. Total								
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																											
Peak Hour for Entire Intersection Begins at 04:15 PM																																											
04:15 PM	0	2	0	3	0	5	0	0	3	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	0	0	0	2	13
04:30 PM	0	0	5	1	1	7	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
04:45 PM	0	0	0	1	1	2	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	8
05:00 PM	0	0	0	1	1	2	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	8
<b>Total Volume</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>6</b>	<b>3</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>1</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>37</b>						
<b>% App. Total</b>	12.5 31.2 37.5 18.8						0 0 92.3 0 7.7							100						100																							
<b>PHF</b>	.000	.280	.250	.500	.750	.571	.000	.000	.750	.000	.250	.813	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750	.250	.000	.000	.000	.000	.250	.712						



P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) WB  
NSW: Washington St/Carriage Road  
City, State: Brighton, MA  
Client: HSH/ J. SanClemente

File Name : 112737 BB1  
Site Code : TBA  
Start Date : 12/14/2011  
Page No : 1

Groups Printed- Peds and Bicycles

Start Time	Commonwealth Avenue (Route 30) WB From North					MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South					Carriage Road From Southwest					Washington Street From West					Carriage Road From Northwest					Int. Total					
	Har d	Ri	Be	Th	Le	Ri	Be	Th	Be	Le	Ri	Th	Be	Le	Har d	Har d	Ri	Th	Le	Har d	Har d	Ri	Th	Le	Har d	Har d	Ri	Be	Be	Har d						
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	124
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	83
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>34</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>145</b>	<b>0</b>	<b>0</b>	<b>446</b>	
05:00 PM	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	161
05:30 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	164
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>623</b>	
Grand Total	0	0	0	3	0	0	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	1	3	0	1	0	0	345	0	0	1069	
Approch %	0	0	0	0.9	0	0	0	36.3	5.9	0	0	0	0	0	0	0	0	0	0	0	0	0	9.8	0	1.2	0.3	0.9	0	0.3	0	0	99.1	0	0	99.8	
Total %	0	0	0	0.3	0	0	0	0.6	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0.1	0.1	0.3	0	0.1	0	0	32.3	0	0	32.3	

Start Time	Commonwealth Avenue (Route 30) WB From North					MBTA Tracks From East					Commonwealth Avenue (Route 30) WB From South					Carriage Road From Southwest					Washington Street From West					Carriage Road From Northwest					Int. Total					
	Har d	Ri	Be	Th	Le	Ri	Be	Th	Be	Le	Ri	Th	Be	Le	Har d	Har d	Ri	Th	Le	Har d	Har d	Ri	Th	Le	Har d	Har d	Ri	Be	Be	Har d						
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																				
Peak Hour for Entire Intersection Begins at 05:00 PM																																				
05:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	137
05:15 PM	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	161
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	161
05:45 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	164
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>39</b>	<b>43</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>202</b>	<b>0</b>	<b>0</b>	<b>623</b>	
% App. Total	0	0	0	1	0	0	0	25	12	0	0	0	0	0	0	0	0	0	0	0	0	0	9.3	0	0	0.6	0.5	0	0	0	0	99	0	0	99	
PHF	.00	.00	.00	.50	.00	.00	.00	.50	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00	.00	.25	.25	.00	.00	.00	.00	.871	.00	.00	.886	





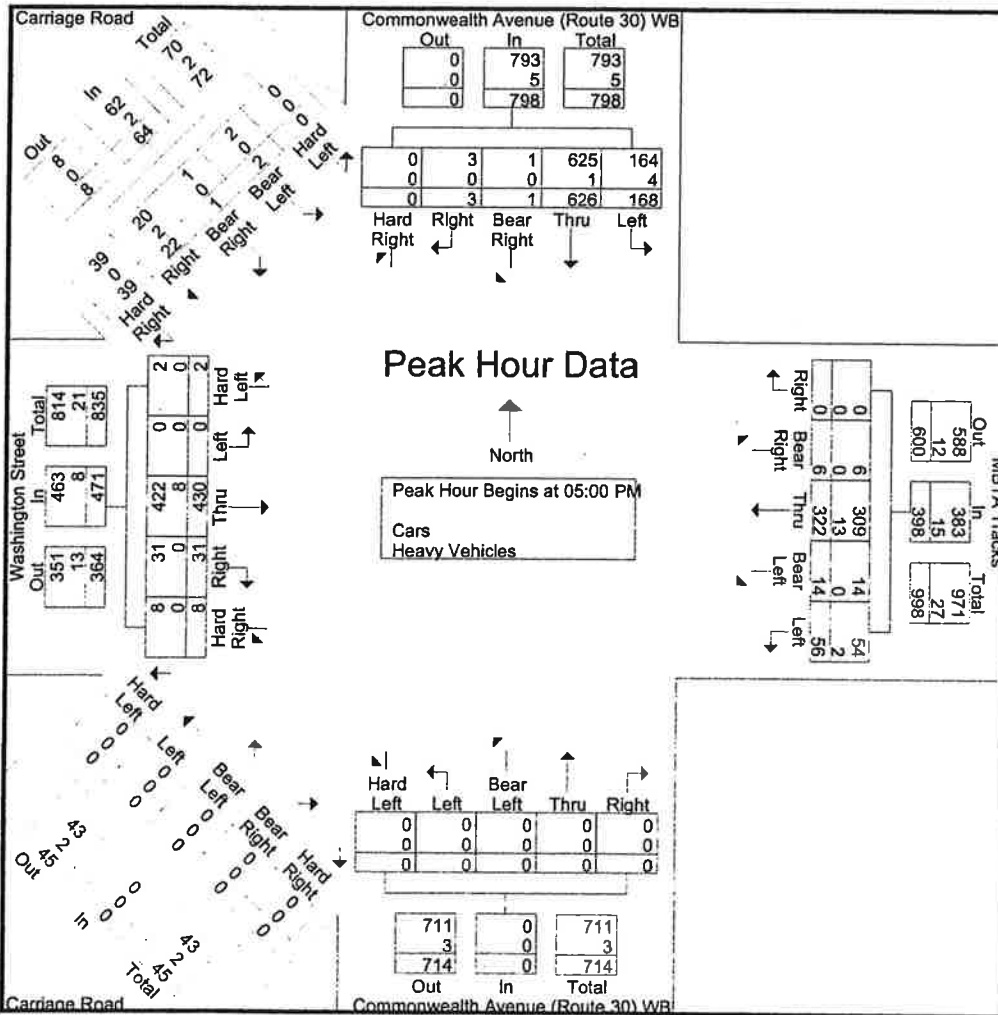
**PRECISION  
DATA  
INDUSTRIES, LLC**

P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdllc.com

File Name : 112737 BB1  
Site Code : TBA  
Start Date : 12/14/2011  
Page No : 1

Commonwealth Avenue (Route 30) WB  
NSW: Washington St/Carriage Road  
City, State: Brighton, MA  
Client: HSH/ J. SanClemente

Start Time	Commonwealth Avenue (Route 30) WB From North						MBTA Tracks From East						Commonwealth Avenue (Route 30) WB From South						Carriage Road From Southwest						Washington Street From West						Carriage Road From Northwest						Int. Total
	Har d RI	Ri g H	Bea r RI	Thru	Le ft	App. Total	Ri g H	Bea r RI	Thru	Le ft	App. Total	Ri g H	Thru	Bea r Le	Le ft	Har d Le	App. Total	Har d RI	Bea r RI	Bea r Le	Le ft	Har d Le	App. Total	Har d RI	Ri g H	Thru	Le ft	Har d Le	App. Total	Har d RI	Ri g H	Bea r RI	Bea r Le	Har d Le	App. Total		
05:00 PM	0	1	0	158	39	196	0	1	79	4	12	96	0	0	0	0	0	0	0	0	0	0	0	0	3	6	103	0	1	113	8	2	0	1	0	11	416
05:15 PM	0	0	1	188	40	209	0	1	83	3	18	105	0	0	0	0	0	0	0	0	0	0	0	0	2	7	118	0	1	126	9	5	0	0	0	14	454
05:30 PM	0	0	0	180	48	208	0	3	82	2	13	100	0	0	0	0	0	0	0	0	0	0	0	0	2	12	106	0	0	120	9	10	1	1	0	21	449
05:45 PM	0	2	0	142	41	185	0	1	78	5	13	97	0	0	0	0	0	0	0	0	0	0	0	0	1	6	105	0	0	112	13	5	0	0	0	18	412
Total Volume	0	3	1	626	168	798	0	6	322	14	56	398	0	0	0	0	0	0	0	0	0	0	0	0	8	31	430	0	2	471	39	22	1	2	0	64	1731
% App. Total	0	0.4	0.1	78.4	21.1	0	1.5	80.9	3.5	14.1	0	0	0	0	0	0	0	0	0	0	0	0	1.7	6.6	81.3	0	0.4	50.9	34.4	1.6	3.1	0	0				
PHF	0.00	0.37	0.25	0.82	0.76	0.95	0.00	0.50	0.70	0.77	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.46	0.27	0.00	0.50	0.93	0.70	0.50	0.30	0.50	0.00	0.78	0.93	
Cars	0	3	1	625	164	793	0	6	308	14	54	383	0	0	0	0	0	0	0	0	0	0	0	0	8	31	422	0	2	463	39	20	1	2	0	62	1701
% Cars	0	100	100	99.8	97.5	99.4	0	100	96.0	100	96.4	96.2	0	0	0	0	0	0	0	0	0	0	0	0	100	100	98.1	0	100	98.3	100	90.9	100	100	0	96.9	98.3
Heavy Vehicles	0	0	0	1	4	5	0	0	13	0	2	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	2	0	0	0	2	30
% Heavy Vehicles	0	0	0	0.2	2.4	0.6	0	0	4.0	0	3.6	3.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	1.7	0	3.1	0	0	0	3.1	1.7





P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdillc.com

File Name : 112737 BB2  
Site Code : TBA  
Start Date : 12/14/2011  
Page No : 1

Commonwealth Avenue (Route 30) EB  
NSE: Washington Street/Carriage Road  
City, State: Brighton, MA  
Client: HSH/ J. SanClemente

Groups Printed- Cars - Heavy Vehicles

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Washington Street From East				Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total	
	Right	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Right	Bear Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Right	Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Bear Right	Thru	Left	Right	Bear Right	Thru	Bear Left	Left		
04:00 PM	0	0	0	0	0	0	0	0	0	0	5	7	79	0	0	13	6	0	0	0	0	10	0	74	0	0	0	99	5	18	316
04:15 PM	0	0	0	0	0	0	0	0	0	0	11	6	82	0	0	8	3	0	0	0	0	2	1	101	0	0	0	107	2	16	339
04:30 PM	0	0	0	0	0	0	0	0	0	0	5	10	93	0	0	14	3	0	0	0	0	2	1	97	1	0	0	119	4	16	365
04:45 PM	0	0	0	0	0	0	0	0	0	0	6	8	95	0	0	8	3	0	1	0	0	4	3	96	1	0	0	112	3	17	357
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>31</b>	<b>349</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>15</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>5</b>	<b>368</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>437</b>	<b>14</b>	<b>67</b>	<b>1377</b>
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	13	95	0	0	13	3	1	0	0	0	8	1	80	0	0	0	121	1	16	353
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	6	102	0	0	16	1	2	0	0	0	8	1	94	1	0	0	135	3	13	382
05:30 PM	0	0	0	0	0	0	0	0	0	0	3	13	98	0	0	17	3	1	0	0	0	10	0	96	0	0	0	129	6	14	390
05:45 PM	0	0	0	0	0	0	0	0	0	0	4	7	101	0	0	22	13	0	1	0	0	7	4	101	0	0	0	122	5	18	405
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>39</b>	<b>396</b>	<b>0</b>	<b>0</b>	<b>68</b>	<b>20</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>33</b>	<b>6</b>	<b>371</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>507</b>	<b>15</b>	<b>61</b>	<b>1530</b>
Grand Total	0	0	0	0	0	0	0	0	0	0	35	70	745	0	0	111	35	4	2	0	0	51	11	739	3	0	0	944	29	128	2907
Approch %	0	0	0	0	0	0	0	0	0	0	4.1	8.2	87.6	0	0	73	23	2.6	1.3	0	0	6.3	1.4	91.9	0.4	0	0	85.7	2.6	11.8	
Total %	0	0	0	0	0	0	0	0	0	0	1.2	2.4	25.6	0	0	3.8	1.2	0.1	0.1	0	0	1.8	0.4	25.4	0.1	0	0	32.5	1	4.4	
Cars	0	0	0	0	0	0	0	0	0	0	35	68	721	0	0	111	32	2	2	0	0	48	11	733	3	0	0	923	29	127	2845
% Cars	0	0	0	0	0	0	0	0	0	0	100	97.1	96.8	0	0	100	91.4	50	100	0	0	94.1	100	99.2	100	0	0	97.8	100	98.2	97.9
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	2	24	0	0	0	3	2	0	0	0	3	0	6	0	0	0	21	0	1	62
% Heavy	0	0	0	0	0	0	0	0	0	0	0	2.9	3.2	0	0	0	8.6	50	0	0	0	5.9	0	0.8	0	0	0	2.2	0	0.8	2.1

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Washington Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total
	Rig	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	Left	App. Total	Right	Bear Right	Thru	Bear Left	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 05:00 PM																																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	13	95	0	0	109	13	3	1	0	0	17	0	8	1	80	0	89	0	0	121	1	16	138	353	
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	6	102	0	0	108	16	1	2	0	0	19	0	8	1	94	1	104	0	0	135	3	13	151	382	
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	13	98	0	0	114	17	3	1	0	0	21	0	10	0	96	0	106	0	0	129	6	14	149	390	
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	7	101	0	0	112	22	13	0	1	0	36	0	7	4	101	0	112	0	0	122	5	18	145	405	
Total	0	0	0	0	0	0	0	0	0	0	0	8	39	396	0	0	443	68	20	4	1	0	93	0	33	6	371	1	411	0	0	507	15	61	583	1530	
Volume	0	0	0	0	0	0	0	0	0	0	0	8	39	396	0	0	443	68	20	4	1	0	93	0	33	6	371	1	411	0	0	507	15	61	583	1530	
% App. Total	0	0	0	0	0	0	0	0	0	0	0	1.8	8.8	89.4	0	0	100	73.1	21.6	4.3	1.1	0	0	0	8	1.5	90.3	0.2	0	0	87	2.6	10.5				
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Cars	0	0	0	0	0	0	0	0	0	0	0	8	37	381	0	0	426	68	19	2	1	0	90	0	32	6	367	1	406	0	0	486	15	60	571	1493	
% Cars	0	0	0	0	0	0	0	0	0	0	0	100	94.8	96.2	0	0	96.2	100	95.0	50.0	100	0	96.8	0	97.0	100	98.9	100	98.8	0	0	97.8	100	98.4	97.9	97.6	
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	2	15	0	0	17	0	1	2	0	0	3	0	1	0	4	0	5	0	0	11	0	1	12	37	
% Heavy	0	0	0	0	0	0	0	0	0	0	0	0	5.1	3.8	0	0	3.8	0	5.0	50.0	0	0	3.2	0	3.0	0	1.1	0	1.2	0	0	2.2	0	1.6	2.1	2.4	





P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

Commonwealth Avenue (Route 30) EB  
 W./NSE: Washington Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

File Name : 112737 BB2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Groups Printed- Cars

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Washington Street From East				Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total	
	Right	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Right	Bear Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Bear Right	Thru	Left	Right	Bear Right	Thru	Bear Left		Left
04:00 PM	0	0	0	0	0	0	0	0	0	0	5	7	78	0	0	13	4	0	0	0	0	10	0	73	0	0	0	95	5	18	308
04:15 PM	0	0	0	0	0	0	0	0	0	0	11	6	79	0	0	8	3	0	0	0	0	0	1	100	0	0	0	105	2	16	331
04:30 PM	0	0	0	0	0	0	0	0	0	0	5	10	92	0	0	14	3	0	0	0	0	2	1	97	1	0	0	118	4	16	363
04:45 PM	0	0	0	0	0	0	0	0	0	0	6	8	91	0	0	8	3	0	1	0	0	4	3	96	1	0	0	109	3	17	350
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>31</b>	<b>340</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>13</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>5</b>	<b>366</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>427</b>	<b>14</b>	<b>67</b>	<b>1352</b>
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	12	91	0	0	13	2	0	0	0	0	8	1	78	0	0	0	118	1	16	341
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	6	97	0	0	16	1	2	0	0	0	7	1	93	1	0	0	131	3	13	371
05:30 PM	0	0	0	0	0	0	0	0	0	0	3	13	96	0	0	17	3	0	0	0	0	10	0	96	0	0	0	128	6	13	385
05:45 PM	0	0	0	0	0	0	0	0	0	0	4	6	97	0	0	22	13	0	1	0	0	7	4	100	0	0	0	119	5	18	396
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>37</b>	<b>381</b>	<b>0</b>	<b>0</b>	<b>68</b>	<b>19</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>6</b>	<b>367</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>496</b>	<b>15</b>	<b>60</b>	<b>1493</b>
Grand Total	0	0	0	0	0	0	0	0	0	0	35	68	721	0	0	111	32	2	2	0	0	48	11	733	3	0	0	923	29	127	2845
Approch %	0	0	0	0	0	0	0	0	0	0	4.2	8.3	87.5	0	0	75.5	21.8	1.4	1.4	0	0	6	1.4	92.2	0.4	0	0	85.5	2.7	11.8	
Total %	0	0	0	0	0	0	0	0	0	0	1.2	2.4	25.3	0	0	3.9	1.1	0.1	0.1	0	0	1.7	0.4	26.8	0.1	0	0	32.4	1	4.5	

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Washington Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total
	Rig	Thru	Bear	Le	Har	App.	Har	Bear	Bear	Le	Har	App.	Har	Rig	Thru	Le	Har	App.	Har	Rig	Bear	Bear	Har	App.	Har	Rig	Bear	Thru	Le	App.	Rig	Bear	Thru	Bear	Le	App.	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 05:00 PM																																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	12	91	0	0	104	13	2	0	0	0	15	0	8	1	78	0	87	0	0	118	1	16	135	341	
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	6	97	0	0	103	16	1	2	0	0	19	0	7	1	93	1	102	0	0	131	3	13	147	371	
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	13	96	0	0	112	17	3	0	0	0	20	0	10	0	96	0	106	0	0	128	6	13	147	385	
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	6	97	0	0	107	22	13	0	1	0	36	0	7	4	100	0	111	0	0	119	5	18	142	396	
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>37</b>	<b>381</b>	<b>0</b>	<b>0</b>	<b>428</b>	<b>68</b>	<b>19</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>90</b>	<b>0</b>	<b>32</b>	<b>6</b>	<b>367</b>	<b>1</b>	<b>406</b>	<b>0</b>	<b>0</b>	<b>496</b>	<b>15</b>	<b>60</b>	<b>571</b>	<b>1493</b>		
% App. Total	0	0	0	0	0	0	0	0	0	0	1.9	8.7	89.4	0	0	0	75.6	21.1	2.2	1.1	0	0	7.9	1.5	90.4	0.2	0	0	86.9	2.8	10.8						
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.24	0.25	0.00	0.51	0.27	0.35	0.25	0.25	0.00	0.25	0.00	0.32	0.18	0.28	0.14	0.00	0.00	0.47	0.25	0.33	0.97	0.94			



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdillc.com

File Name : 112737 BB2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Commonwealth Avenue (Route 30) EB  
 NSE: Washington Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

Groups Printed- Heavy Vehicles

Start Time	Commonwealth Avenue (Route 30) EB From North					Carriage Road From Northeast					Washington Street From East					Carriage Road From Southeast					Commonwealth Avenue (Route 30) EB From South					MBTA Tracks From West					Int. Total						
	Rght	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Right	Bear Left	Left	Hard Left	Hard Right	Right	Thru	Left	Hard Left	Hard Right	Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Bear Right	Thru	Left	Right	Bear Right	Thru	Bear Left	Left							
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	8	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>25</b>	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	1	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	12	
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	11	
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>37</b>		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	2	24	0	0	0	3	2	0	0	0	0	0	3	0	6	0	0	0	0	0	0	0	21	0	1	62
Apprch %	0	0	0	0	0	0	0	0	0	0	0	7.7	92.3	0	0	0	60	40	0	0	0	0	33.3	0	66.7	0	0	0	0	0	0	0	95.5	0	4.5		
Total %	0	0	0	0	0	0	0	0	0	0	0	3.2	38.7	0	0	0	4.8	3.2	0	0	0	0	4.8	0	9.7	0	0	0	0	0	0	33.9	0	1.6			

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Washington Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total
	Rght	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	Left	App. Total	Right	Bear Right	Thru	Bear Left	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 05:00 PM																																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	1	1	0	0	2	0	0	0	2	0	2	0	0	3	0	0	3	12	
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	1	0	1	0	2	0	0	4	0	0	4	11	
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	5	
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	0	0	3	9	
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>12</b>	<b>37</b>		
% App. Total												11.8	68.2	0	0			33.3	66.7	0	0			20	0	80	0				91.7	0	8.3				
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.750	0.000	0.000	0.850	0.000	0.250	0.500	0.000	0.000	0.375	0.000	0.250	0.000	0.500	0.000	0.625	0.000	0.000	0.688	0.000	0.250	0.750	0.771	



P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdilic.com

File Name : 112737 BB2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Commonwealth Avenue (Route 30) EB  
 W/NSE: Washington Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/J. SanClemente

Groups Printed- Peds and Bicycles

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Washington Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total
	Rght	Thru	Bea r Lef	Left	Har d Le s	Ped #	Har d RI	Bea r RI	Bea r Lef	Left	Har d Le s	Ped #	Har d RI	Rght	Thru	Left	Har d Le s	Ped #	Har d RI	Rght	Bea r RI	Bea r Lef	Har d Le s	Ped #	Har d RI	Rght	Bea r RI	Thru	Left	Ped #	Rght	Bea r RI	Thru	Bea r Lef	Left	Ped #	
04:00 PM	0	0	0	0	0	32	0	0	0	0	0	32	0	0	0	0	0	30	1	0	0	0	0	18	0	0	0	0	0	18	0	0	1	0	0	3	135
04:15 PM	0	0	0	0	0	49	0	0	0	0	0	49	1	0	0	0	0	32	0	0	0	0	0	7	0	0	0	0	1	7	0	0	0	0	0	4	150
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>173</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>173</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>128</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>583</b>
05:00 PM	0	0	0	0	0	45	0	0	0	0	0	45	0	0	0	0	0	36	0	0	0	0	0	11	0	0	0	0	0	11	0	0	1	0	0	0	149
05:15 PM	0	0	0	0	0	52	0	0	0	0	0	52	0	0	1	0	0	39	0	0	0	0	0	14	0	0	0	0	0	14	0	0	5	0	0	1	178
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>199</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>199</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>257</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>109</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>109</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>14</b>	<b>1248</b>
Grand Total	0	0	0	0	0	369	0	0	0	0	0	369	2	0	6	0	0	257	1	0	0	0	0	109	0	0	0	0	1	109	0	0	10	1	0	14	1248
Apprch %	0	0	0	0	0	100	0	0	0	0	0	100	0.8	0	2.3	0	0	97	0.9	0	0	0	0	99.1	0	0	0	0	0.9	99.1	0	0	40	4	0	56	
Total %	0	0	0	0	0	29.8	0	0	0	0	0	29.8	0.2	0	0.5	0	0	20.6	0.1	0	0	0	0	8.7	0	0	0	0	0.1	8.7	0	0	0.8	0.1	0	1.1	

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Washington Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						Int. Total
	Rght	Thru	Bea r Lef	Left	Har d Le s	App. Total	Har d RI	Bea r RI	Bea r Lef	Left	Har d Le s	App. Total	Har d RI	Rght	Thru	Left	Har d Le s	App. Total	Har d RI	Rght	Bea r RI	Bea r Lef	Har d Le s	App. Total	Har d RI	Rght	Bea r RI	Thru	Left	App. Total	Rght	Bea r RI	Thru	Bea r Lef	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 05:00 PM																																					
05:00 PM	0	0	0	0	0	51	51	0	0	0	0	0	51	51	0	0	1	0	0	22	23	0	0	0	0	0	17	17	0	0	1	0	0	0	1	160	
05:15 PM	0	0	0	0	0	45	45	0	0	0	0	0	45	45	0	0	0	0	0	36	36	0	0	0	0	0	11	11	0	0	1	0	0	0	1	149	
05:30 PM	0	0	0	0	0	48	48	0	0	0	0	0	48	48	1	0	0	0	0	31	32	0	0	0	0	0	22	22	0	0	1	0	0	5	6	178	
05:45 PM	0	0	0	0	0	52	52	0	0	0	0	0	52	52	0	0	1	0	0	39	40	0	0	0	0	0	14	14	0	0	5	0	0	1	6	178	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>196</b>	<b>196</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>196</b>	<b>196</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>131</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>64</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>14</b>	<b>665</b>	
% App. Total	0	0	0	0	0	10	10	0	0	0	0	0	10	10	0.8	0	1.5	0	0	97	0	0	0	0	0	10	10	0	0	0	0	0	42	42			
<b>PHF</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.94</b>	<b>.942</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.94</b>	<b>.942</b>	<b>.25</b>	<b>.00</b>	<b>.50</b>	<b>.00</b>	<b>.00</b>	<b>.82</b>	<b>.818</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.00</b>	<b>.72</b>	<b>.727</b>	<b>.00</b>	<b>.00</b>	<b>.40</b>	<b>.00</b>	<b>.00</b>	<b>.30</b>	<b>.583</b>	<b>.934</b>	



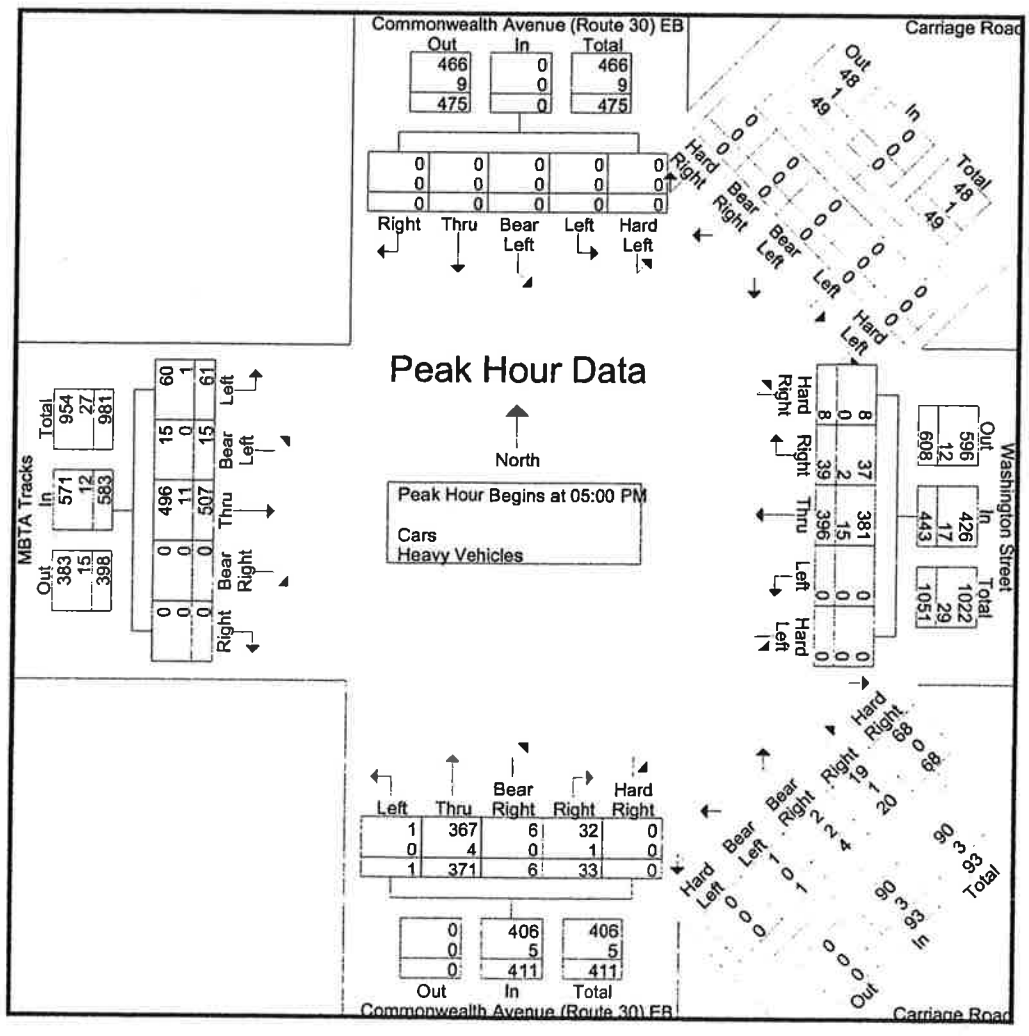


P.O. Box 301 Berlin, MA 01503  
 Office: 508.481.3999 Fax: 508.545.1234  
 Email: datarequests@pdilic.com

File Name : 112737 BB2  
 Site Code : TBA  
 Start Date : 12/14/2011  
 Page No : 1

Commonwealth Avenue (Route 30) EB  
 NSE: Washington Street/Carriage Road  
 City, State: Brighton, MA  
 Client: HSH/ J. SanClemente

Start Time	Commonwealth Avenue (Route 30) EB From North						Carriage Road From Northeast						Washington Street From East						Carriage Road From Southeast						Commonwealth Avenue (Route 30) EB From South						MBTA Tracks From West						
	Rig	Thru	Bear	Left	Hard	App.	Hard	Bear	Bear	Left	Hard	App.	Hard	Rig	Thru	Left	Hard	App.	Hard	Rig	Bear	Bear	Hard	App.	Hard	Rig	Bear	Thru	Left	App.	Rig	Bear	Thru	Bear	Left	App.	Int.
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	13	95	0	0	109	13	3	1	0	0	17	0	8	1	80	0	89	0	0	121	1	16	138	353
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	102	0	0	108	16	1	2	0	0	19	0	8	1	94	1	104	0	0	133	3	13	151	382
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	13	98	0	0	114	17	3	1	0	0	21	0	10	0	96	0	106	0	0	128	6	14	149	390
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	7	101	0	0	112	22	13	0	1	0	36	0	7	4	101	0	112	0	0	122	5	18	145	405
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	8	39	396	0	0	443	68	20	4	1	0	93	0	33	6	371	1	411	0	0	507	15	61	583	1530
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	1.8	8.8	99.4	0	0		73.1	21.5	4.3	1.1	0		0	8	1.5	90.3	0.2		0	0	87	2.6	10.5		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Cars	0	0	0	0	0	0	0	0	0	0	0	0	8	37	381	0	0	426	68	19	2	1	0	90	0	32	6	387	1	406	0	0	498	15	60	571	1493
% Cars	0	0	0	0	0	0	0	0	0	0	0	0	100	94.9	98.2	0	0	96.2	100	95.0	50.0	100	0	98.8	0	97.0	100	98.9	100	98.8	0	0	97.8	100	96.4	97.9	97.6
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	2	15	0	0	17	0	1	2	0	0	3	0	1	0	4	0	5	0	0	11	0	1	12	37
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	5.1	3.8	0	0	3.8	0	5.0	50.0	0	0	3.2	0	3.0	0	1.1	0	1.2	0	0	2.2	0	1.6	2.1	2.4





38 Chauncy Street  
 Boston, MA 02111  
 (617) 482-7080 ■ Fax (617) 482-7417

JOB 07086

SHEET NO. 1 OF 6

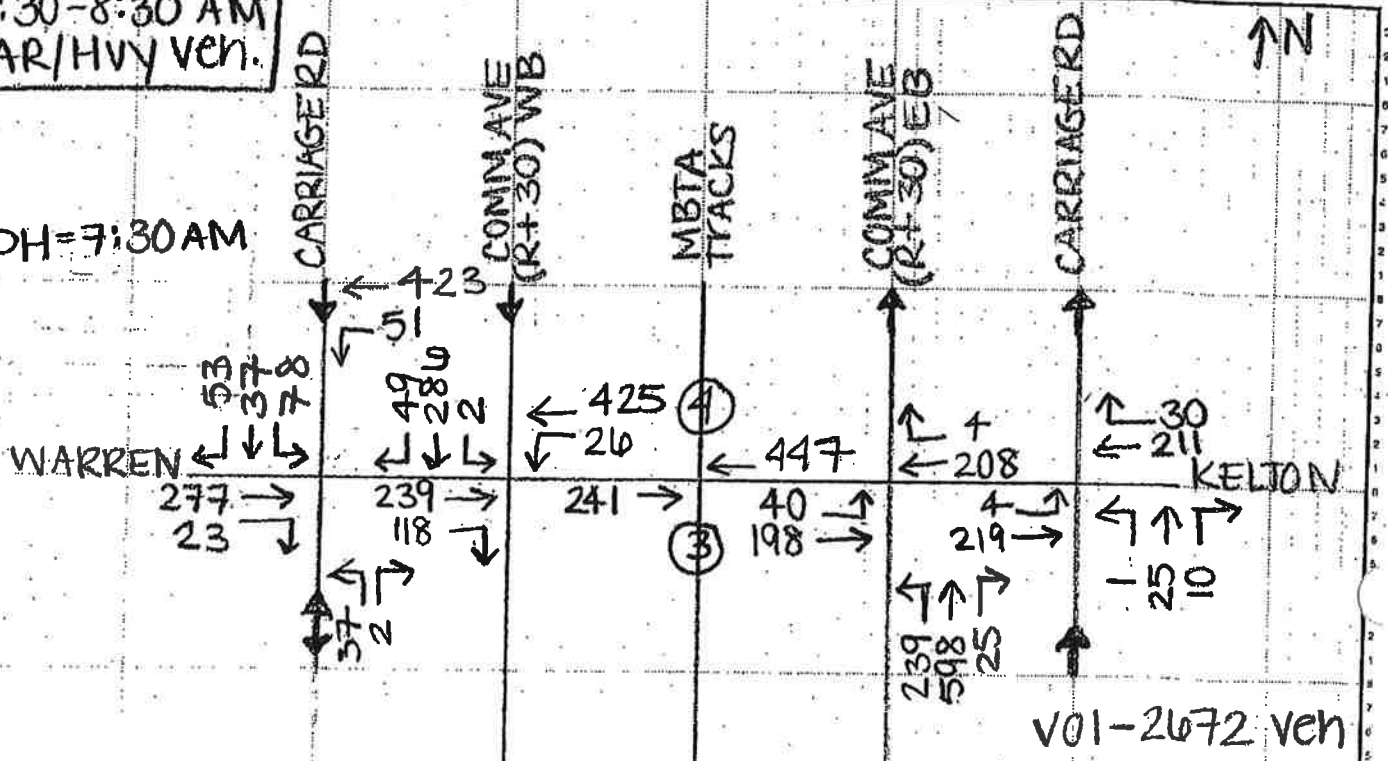
CALCULATED BY SBC DATE 1/4/12

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

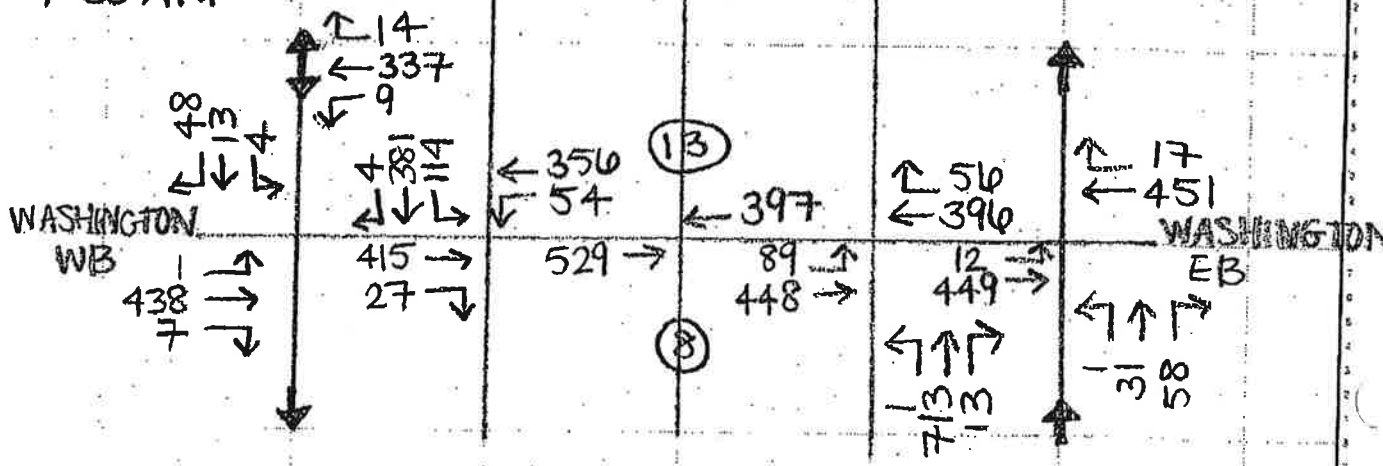
SCALE \_\_\_\_\_

7:30-8:30 AM  
 CAR/HVY VEH.

PH=7:30 AM



PH=7:30 AM



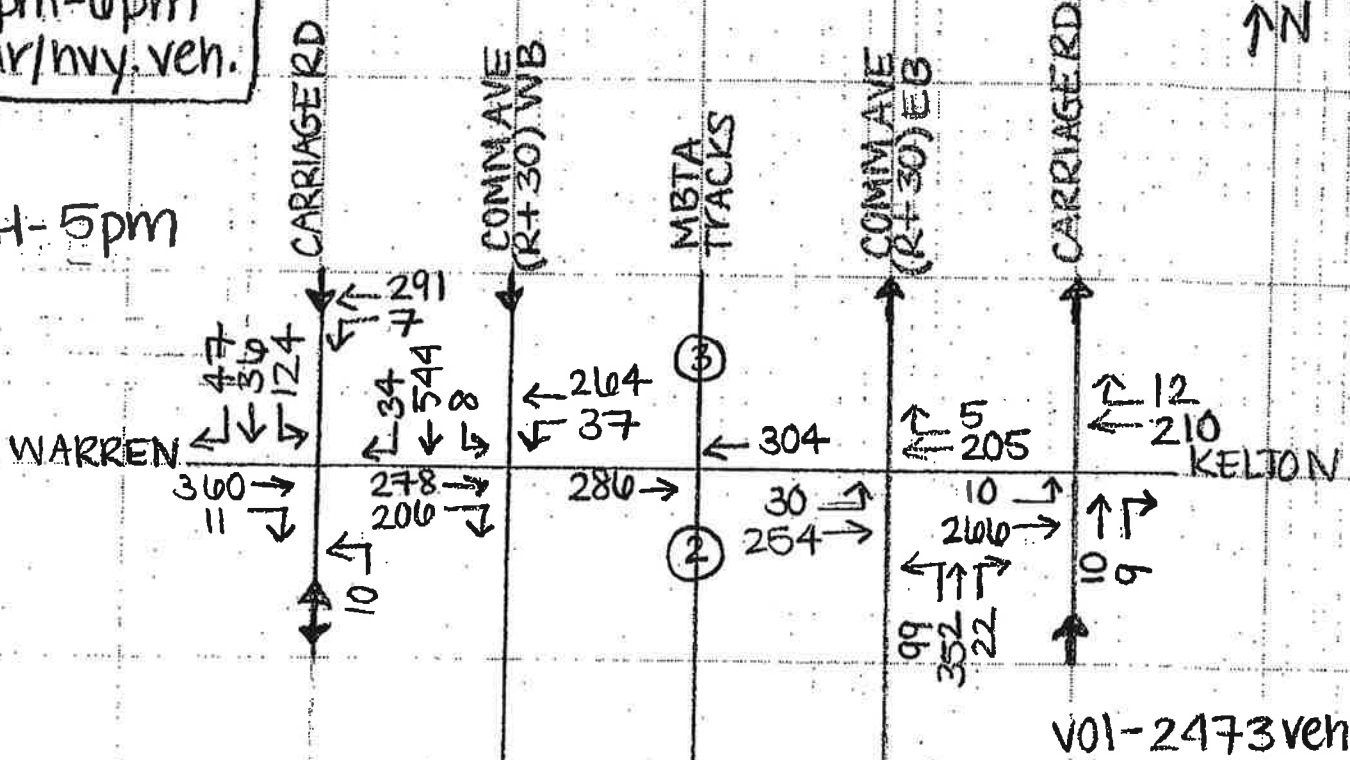


38 Chauncy Street  
 Boston, MA 02111  
 (617) 482-7080 ■ Fax (617) 482-7417

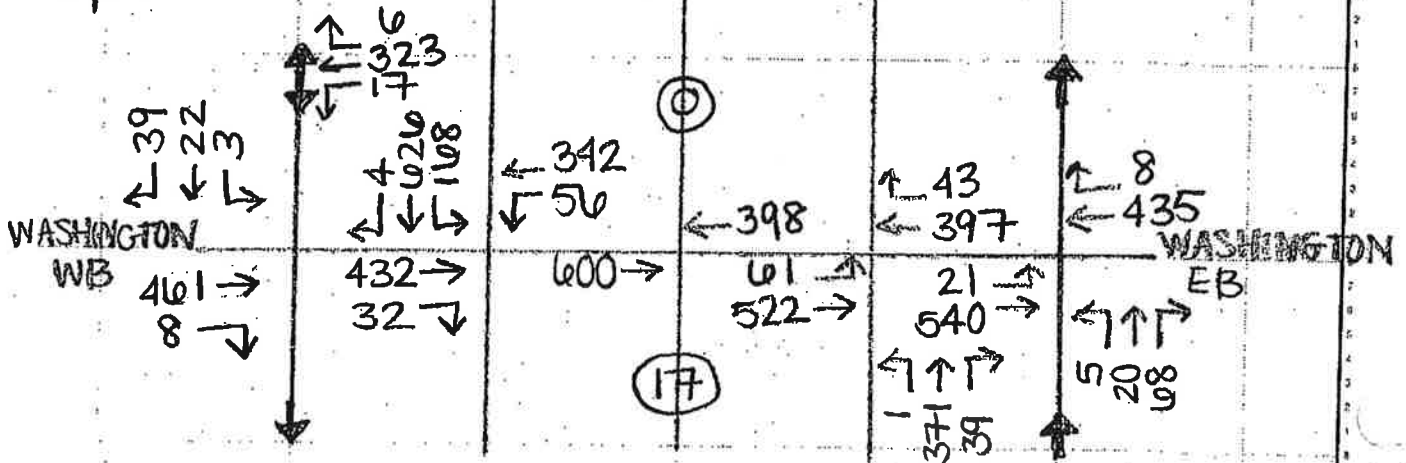
JOB 07086  
 SHEET NO. 2 OF 6  
 CALCULATED BY SBC DATE 1/4/12  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 SCALE \_\_\_\_\_

5pm-6pm  
 car/hvy. veh.

PH-5pm



PH-5pm



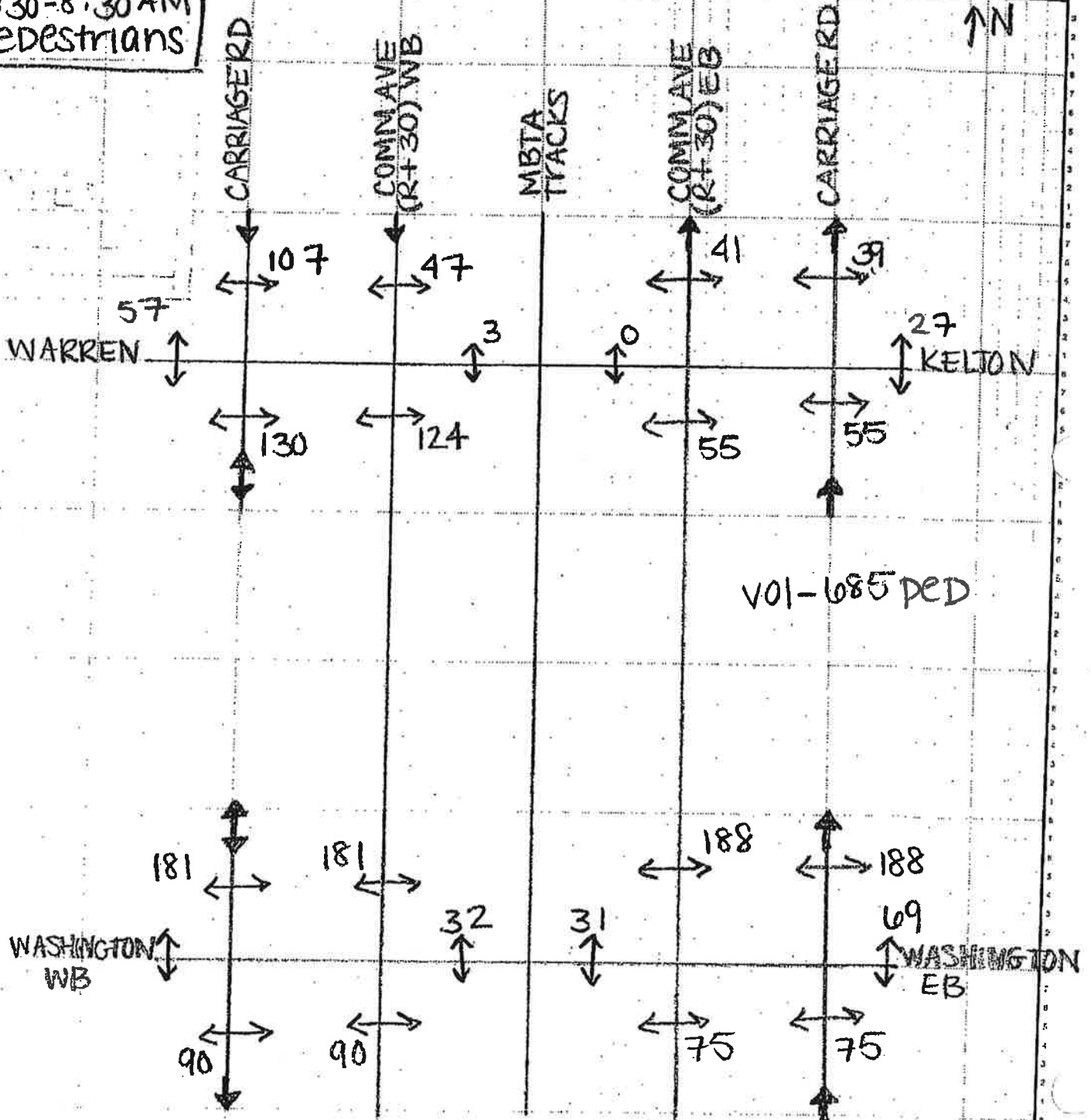
VOI-3261 veh  
 total VOI-5734 veh



38 Chauncy Street  
 Boston, MA 02111  
 (617) 482-7080 ■ Fax (617) 482-7417

JOB 07080  
 SHEET NO. 3 OF 6  
 CALCULATED BY SBC DATE 1/4/12  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 SCALE \_\_\_\_\_

7:30-8:30 AM  
 Pedestrians



VOI-685 PED

VOI-1267 PED  
 tot VOI-1952 PED



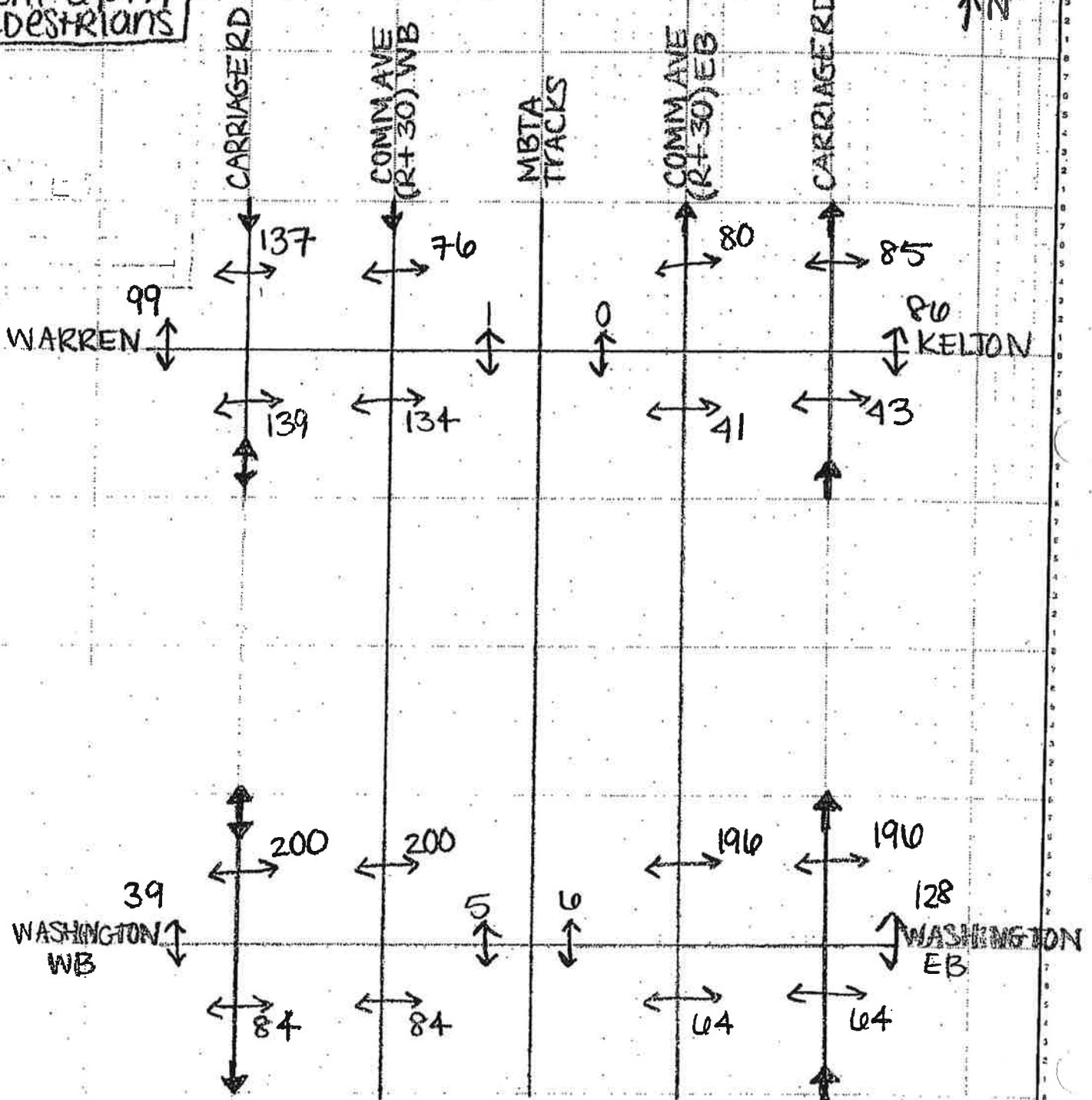


38 Chauncy Street  
 Boston, MA 02111  
 (617) 482-7080 ■ Fax (617) 482-7417

JOB 07086  
 SHEET NO. 4 OF 6  
 CALCULATED BY SBC DATE 1/4/12  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 SCALE \_\_\_\_\_

5pm-6pm  
 Pedestrians

↑N

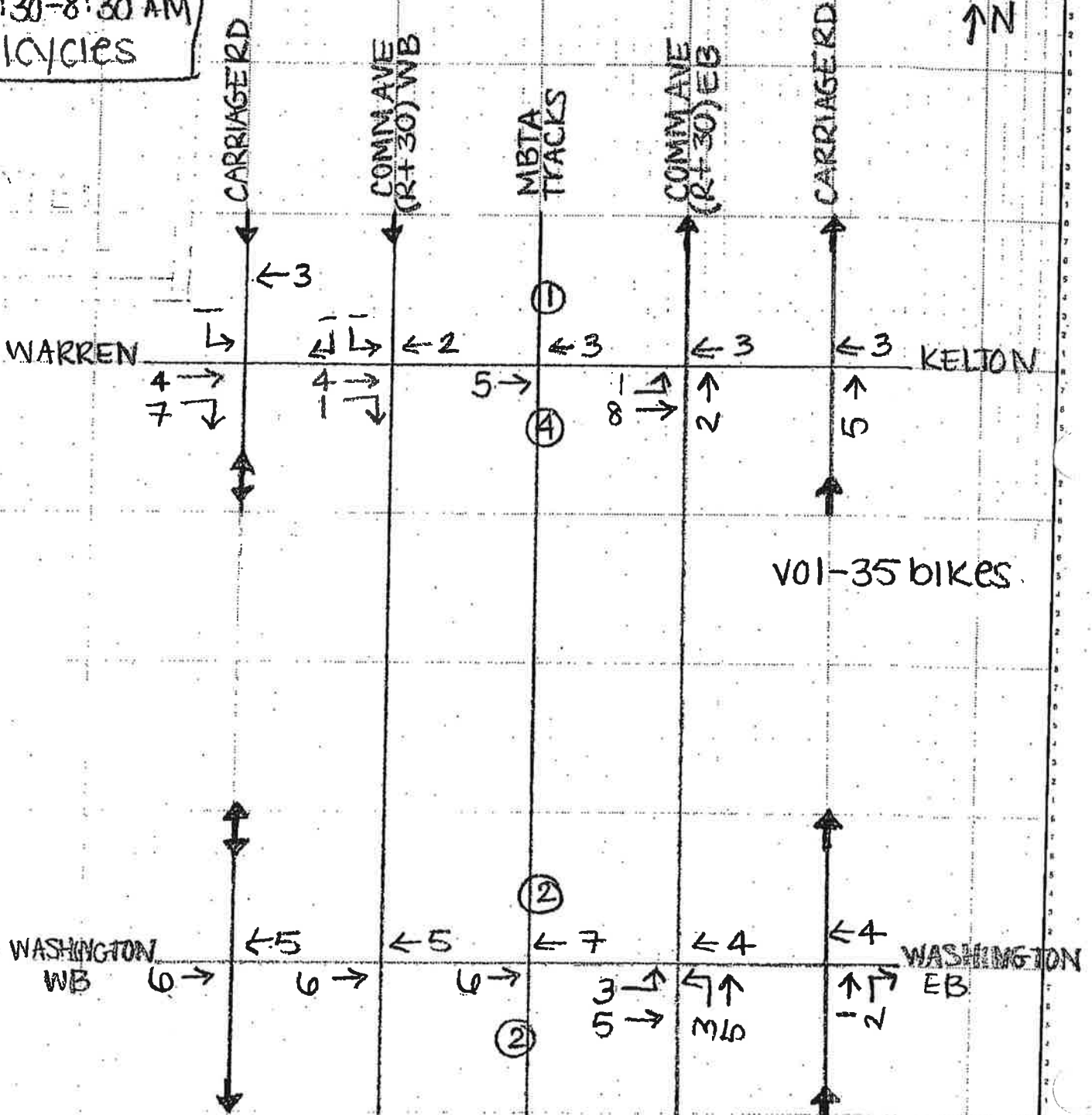




38 Chauncy Street  
 Boston, MA 02111  
 (617) 482-7080 ■ Fax (617) 482-7417

JOB 07080  
 SHEET NO. 5 OF 10  
 CALCULATED BY SBC DATE 1/4/12  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 SCALE \_\_\_\_\_

7:30-8:30 AM  
 BICYCLES



VOI-35 BIKES

VOI-34 BIKES  
 total - 69 BIKES



38 Chauncy Street  
 Boston, MA 02111  
 (617) 482-7080 ■ Fax (617) 482-7417

JOB 07080

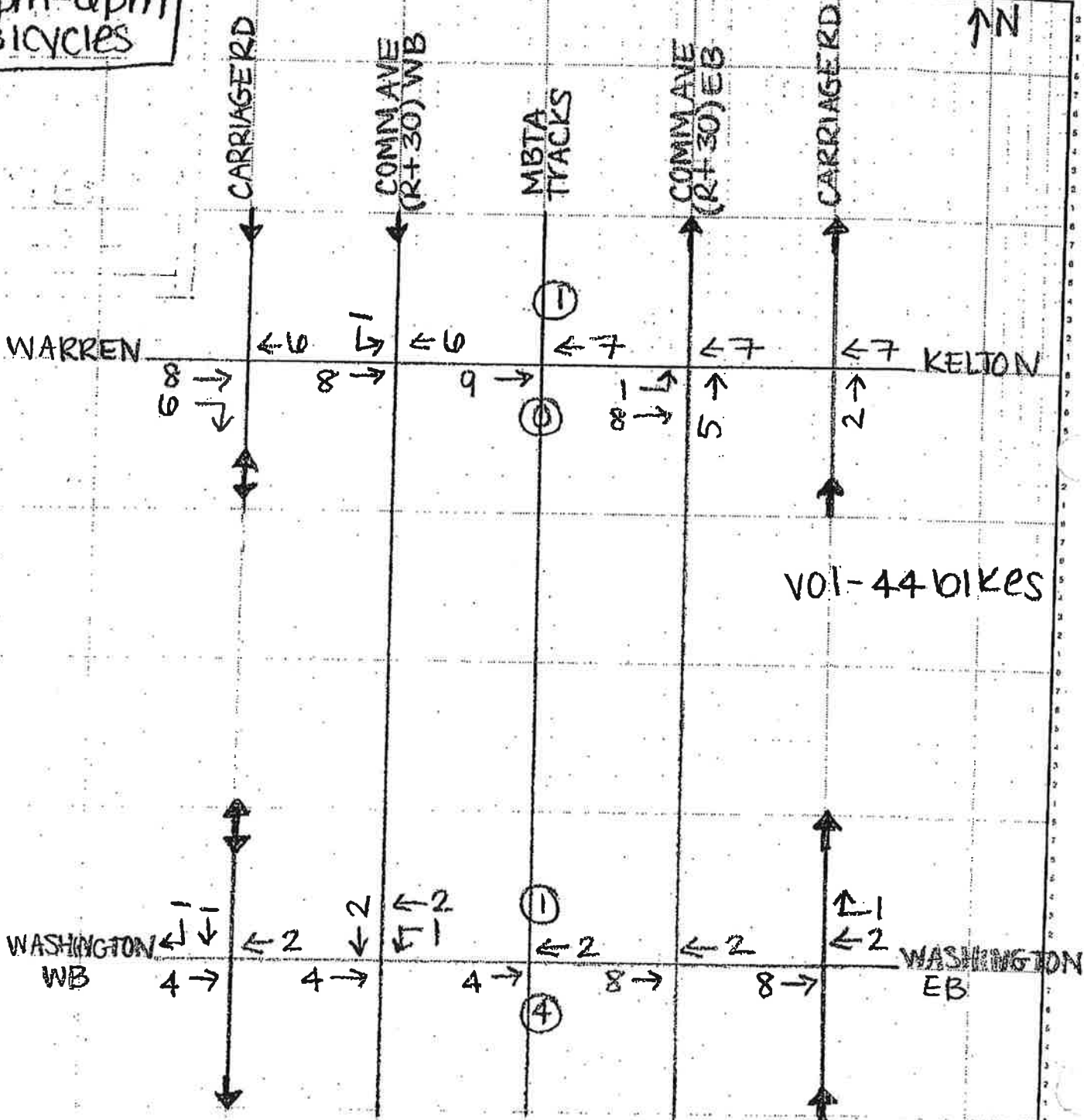
SHEET NO. 6 OF 18

CALCULATED BY SBC DATE 1/4/12

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

SCALE \_\_\_\_\_

5pm-6pm  
 BICYCLES



Vol-44 bikes

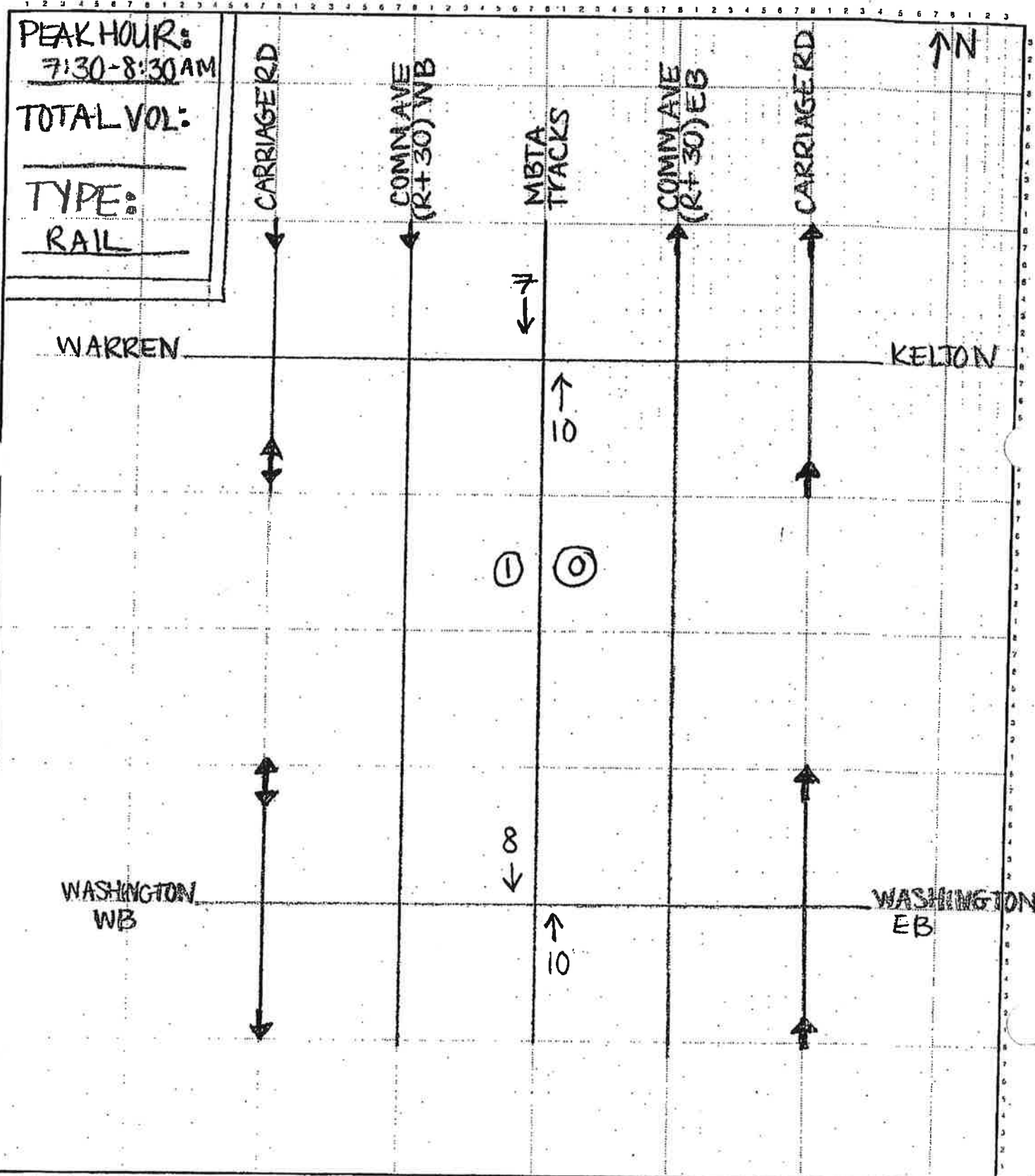
Vol-22 bikes  
 tot Vol-66 bikes



38 Chauncy Street  
 Boston, MA 02111  
 (617) 482-7080 ■ Fax (617) 482-7417

JOB 07080  
 SHEET NO. 7 OF 68  
 CALCULATED BY SEC DATE 1/3/12  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 SCALE \_\_\_\_\_

PEAK HOUR:  
7:30-8:30 AM  
 TOTAL VOL:  
 \_\_\_\_\_  
 TYPE:  
RAIL

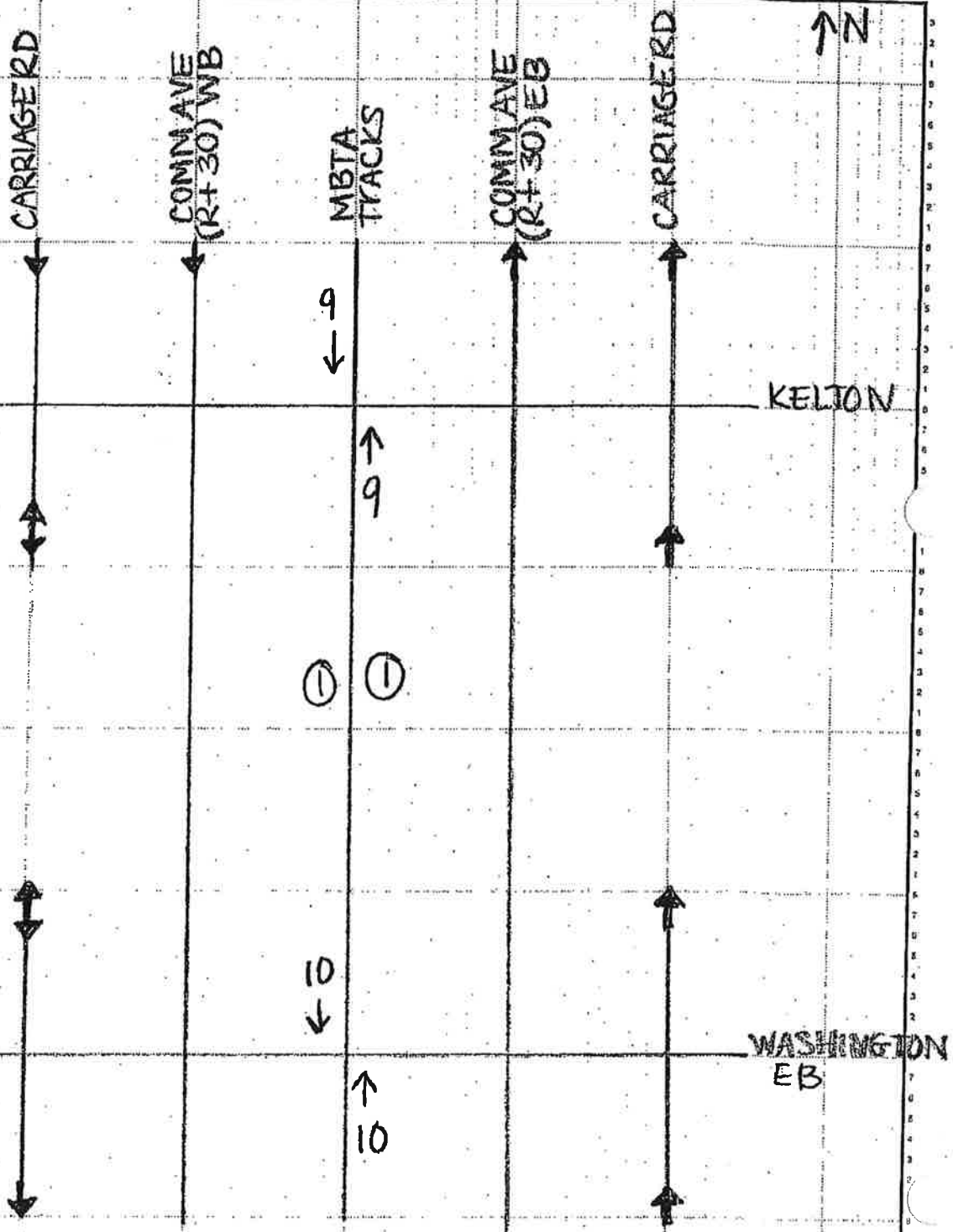




38 Chauncy Street  
 Boston, MA 02111  
 (617) 482-7080 ■ Fax (617) 482-7417

JOB 07080  
 SHEET NO. \_\_\_\_\_ OF 68  
 CALCULATED BY SBC DATE 1/3/12  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 SCALE \_\_\_\_\_

PEAK HOUR:  
5PM-6PM  
 TOTAL VOL:  
 \_\_\_\_\_  
 TYPE:  
RAIL





**PRELIMINARY  
GEOTECHNICAL ENGINEERING  
REPORT**

**CHARING CROSS  
1501 COMMONWEALTH AVENUE**

**BRIGHTON            MASSACHUSETTS**

for

**Hart Development Associates**

**April 27, 2009**

**Project No. 4903**



Geotechnical Engineers

April 27, 2009

Hart Development Associates  
288 Newbury Street  
Boston, MA 02115

Attention: Mr. Daniel R. Hart

Reference: Charing Cross, 1501 Commonwealth Avenue; Brighton, Massachusetts  
Preliminary Geotechnical Engineering Recommendations

Ladies and Gentlemen:

This letter documents the results of our subsurface exploration and preliminary geotechnical engineering services associated with the Charing Cross development located at 1501 Commonwealth Avenue in Brighton, Massachusetts. Refer to the Project Location Plan (Figure 1) for the general site location.

This report was prepared in accordance with our proposal dated October 17, 2008 and the subsequent authorization of Mr. Daniel R. Hart. These services are subject to the limitations contained in Appendix A.

### **Existing Conditions and Proposed Development**

Fronting onto Commonwealth Avenue to the east, the approximately 31,319 square foot subject site is bounded by the Brighton Marine Health Center to the north, Kindred Hospital to the south, and wooded land to the west. The subject site is currently occupied by a vacant 2-story, concrete/masonry building which was formerly used as a nursing home. A paved surface parking lot is located to the north of the existing building. A grassed area is located behind the building on the south side.

Existing grade along the eastern portion of the site adjacent to Commonwealth Avenue slopes down from south to north from approximately Elevation +140 to Elevation +121. Within the paved parking area, existing grade slopes upward from east to west from approximately Elevation +121 to Elevation +128. Behind the building, existing grade slopes steeply upward from approximately Elevation +137 to Elevation +147.

A single level parking structure is located on the abutting property to the south. Exposed concrete columns that support the structure were observed to bear on a bedrock outcropping that extends onto the southern portion of the site, adjacent to the southwest corner of the existing site building.

It is understood that the proposed development includes demolition of the existing structure and construction of a new 6-story building containing two levels of at-grade parking that will closely approximate the existing grades along Commonwealth Avenue and four levels of residential space above. It is further understood that the proposed building will contain no below-grade space.

### **Investigation Procedures**

Our preliminary subsurface investigation consisting of three (3) soil borings was conducted at the site on April 2, 2009. The boreholes were performed by Carr-Dee Corp. of Medford, Massachusetts under contract to McPhail Associates, Inc. Logs of the soil borings are contained in Appendix B and

2269 Massachusetts Avenue  
Cambridge, Massachusetts 02140  
617 / 868-1420  
617 / 868-1423 (Fax)



Geotechnical Engineers

Hart Development Associates  
April 27, 2009  
Page 2

approximate locations of the explorations are as indicated on the enclosed Subsurface Exploration Plan, Figure 2 which is based upon a plan entitled "ALTA/ACSM Land Title Survey, 1501 Commonwealth Avenue, Boston, Mass." prepared by Feldman Professional Land Surveyors and dated December 2008.

The subsurface explorations were monitored by a representative of McPhail Associates, Inc. who performed field layout, prepared field logs, obtained and visually classified soil samples, monitored groundwater conditions in the completed explorations and the groundwater observation wells installed at the site, made minor adjustments to the exploration locations and determined the required exploration depths based upon the actual subsurface conditions encountered.

Field locations of the subsurface explorations were determined by taping from existing site features identified on the above referenced survey plan. The existing ground surface elevation at each boring location was determined by a level survey performed by McPhail Associates, Inc. utilizing vertical control provided on the referenced survey plan.

The soil borings completed within the paved parking area (borings B-2 and B-3) were performed using a truck-mounted drill rig and were advanced utilizing 2-1/4-inch diameter hollow stem augers. Boring B-1, completed within the landscaped area of the site along Commonwealth Avenue was completed with portable drilling equipment. Standard 1-3/8-inch I.D. split-spoon samples and standard penetration tests were generally obtained continuously with depth in accordance with the standard procedures described in ASTM D1586.

To permit monitoring of groundwater levels at the site boring B-3 was finished as a groundwater observation well.

### **Laboratory Testing**

At the completion of the field work, the soil samples were transported to our laboratory for more detailed classification, analyses and testing. The laboratory testing consisted of sieve analyses to obtain representative grain size distributions of samples of the fill and glacial till deposits. Laboratory test procedures were in general accordance with applicable ASTM Standards. Results of the laboratory testing conducted on samples of the fill and glacial till deposits are presented in Figures 3 and 4, respectively.

### **Subsurface Conditions**

Detailed descriptions of the subsurface conditions encountered within each of the boreholes are presented on the boring logs contained in Appendix B. Following is a discussion of the generalized subsurface conditions across the site which are inferred primarily from the recent explorations, and also from our knowledge of local site geology, foundation design and construction experience in the Brighton area of Boston.

The explorations indicate that the site is covered by surface treatments consisting of either a 6-inch thick layer of topsoil or a 2-inch thickness of asphalt pavement. Beneath the surface treatments, the project site is blanketed by a loose to dense, brown fill material that generally consists of a silty sand and gravel





Geotechnical Engineers

Hart Development Associates  
April 27, 2009  
Page 3

containing trace amounts of brick, concrete, ash and cinders. The fill varied in thickness from 2 feet at the west end of the site (boring B-2) up to 15 feet at the east end of the site (boring B-3).

Underlying the fill, the explorations encountered a natural deposit of glacial till at depths of 2 feet and 15 feet below ground surface in borings B-2 and B-3, respectively. The glacial till consisted of a very dense, light brown, silty sand and gravel with some cobbles. Beneath the glacial till in borings B-2 and B-3, and directly beneath the fill in boring B-1, the explorations encountered refusal on what is believed to be the underlying bedrock. Refusal was encountered at depths of 8.3 feet, 8 feet, and 18.5 feet, corresponding to Elevation +128.5, Elevation +119.0, and Elevation +106.0, in borings B-1, B-2, and B-3, respectively.

The stabilized groundwater level within the observation well installed in completed borehole B-3 was observed at 14 feet below the existing ground surface, corresponding to Elevation +110.5. It is anticipated that future groundwater levels across the site may vary from those reported herein due to factors such as normal seasonal changes, periods of heavy precipitation, and alterations of existing drainage patterns. A Groundwater Monitoring Report for the observation well installed in boring B-3 is presented in Appendix C.

#### **Preliminary Foundation Design Recommendations**

Based on our current understanding of the schematic design of the proposed structure and the subsurface soil and groundwater conditions encountered during our recent subsurface exploration program, it is recommended that foundation support of the proposed buildings transfer the structural loads through the unsuitable fill deposit to the underlying glacial till or bedrock deposits that are present across the project site. Utilization of a design bearing pressure of 4 tons per square-foot for foundations bearing on either the natural very dense glacial till or bedrock deposits is recommended for preliminary design purposes. The allowable design bearing pressure may be modified during the final design based upon additional subsurface information.

Based on the preliminary subsurface investigations, for purposes of determining the total lateral seismic force or base shear for earthquake design, the site of the proposed building is considered to be Site Class C as defined in Section 1615.0 of the Massachusetts State Building Code (Seventh Edition).

The selection of the specific foundation system for support of the proposed structure is highly dependent upon the elevation of the lowest level floor slab of the proposed building in relation to the elevation of the existing grades, given the variability in the anticipated depth to the bearing stratum. Based upon the subsurface conditions indicated by the preliminary subsurface investigations, the site appears to be suited for utilization of a conventional spread footing foundation system in conjunction with slab-on-grade construction. However, based upon the observed soil conditions as described above, over-excavation and replacement of unsuitable fill soils is anticipated for foundation construction, in particular, within the eastern and northeast portions of the site where the fill extends to a depths of 8 to 15 feet below existing grade. It is anticipated that lean concrete or pier foundations could be utilized to extend foundation support to the bearing surface as opposed to the over-excavation and replacement of structural fill to the design bottom of footing elevation.

Given that no below-grade space is proposed, perimeter and underslab drainage is not recommended.



Geotechnical Engineers

Hart Development Associates  
April 27, 2009  
Page 4

**Final Comments**

Based on our current understanding of the project scope, a final subsurface exploration program is recommended to further define the extent of over-excavation of unsuitable fill that will be required given the variable depth of fill present at the site, and in consideration of the proposed lowest level slab elevations which have not yet been determined. In addition, a final foundation engineering report should be prepared in conjunction with the final subsurface exploration program which provides final foundation recommendations based on the specific project design requirements.

We trust that the above preliminary information is sufficient for your present requirements. Should you have any questions concerning the recommendations presented herein, please do not hesitate to call us.

Very truly yours,

McPHAIL ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Joseph G. Lombardo, Jr.", written over a horizontal line.

Joseph G. Lombardo, Jr.

A handwritten signature in black ink, appearing to read "Chris M. Erikson, P.E.", written over a horizontal line.

Chris M. Erikson, P.E.

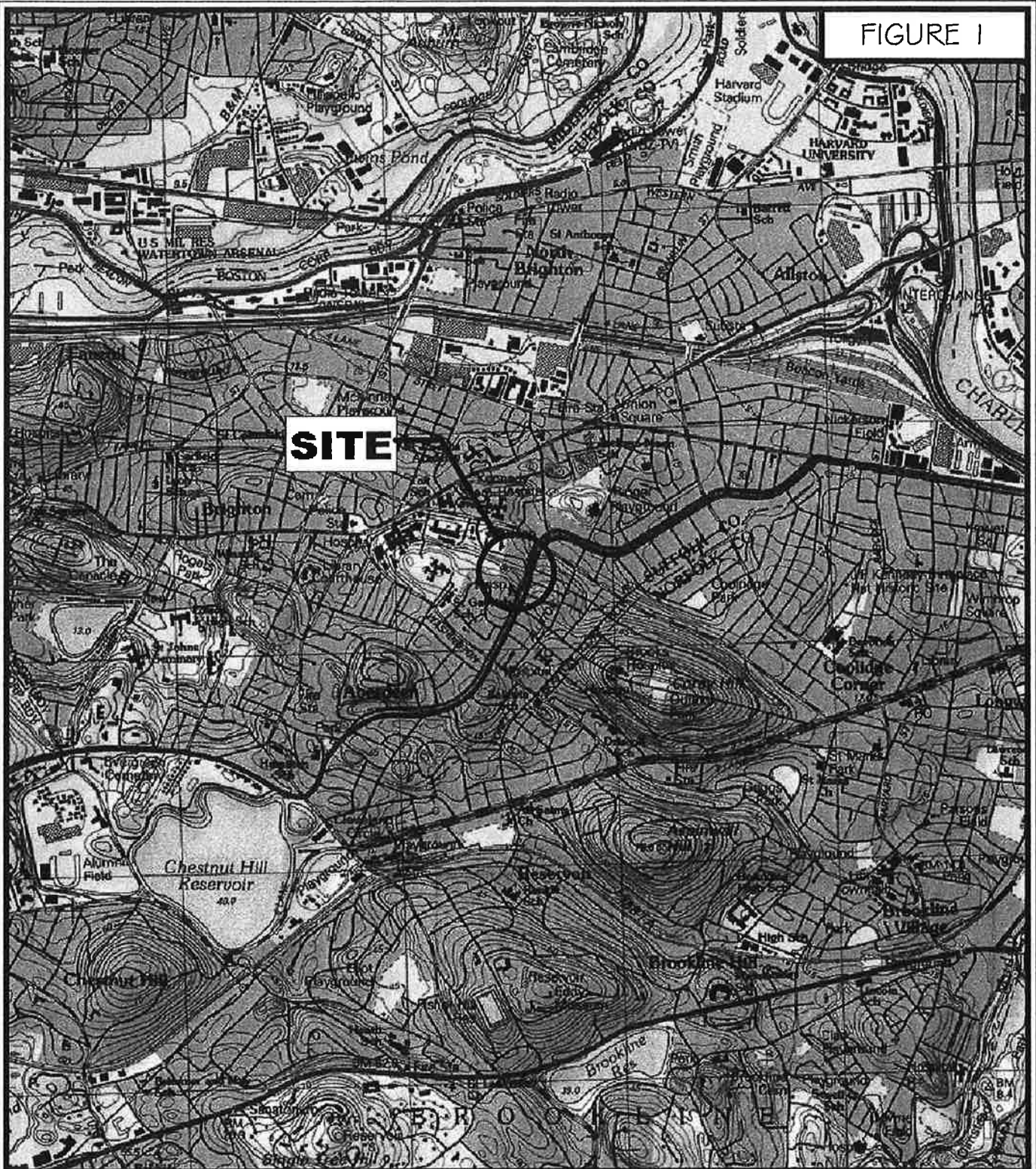
Enclosures

c: Tise Design Associates, Inc. (Mr. Steven Tise)  
Foley Buhl Roberts & Associates, Inc. (Mr. Jonathan Buhl)

F:\WP5\REPORTS\4903-Prelim Geot.wpd

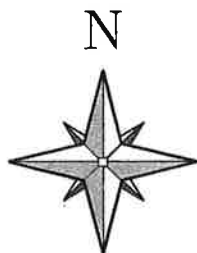
JGL/cme

FIGURE 1



Geotechnical Engineers

2269 Massachusetts Avenue  
Cambridge, MA 02140  
617/868-1420  
617/868-1423 (Fax)



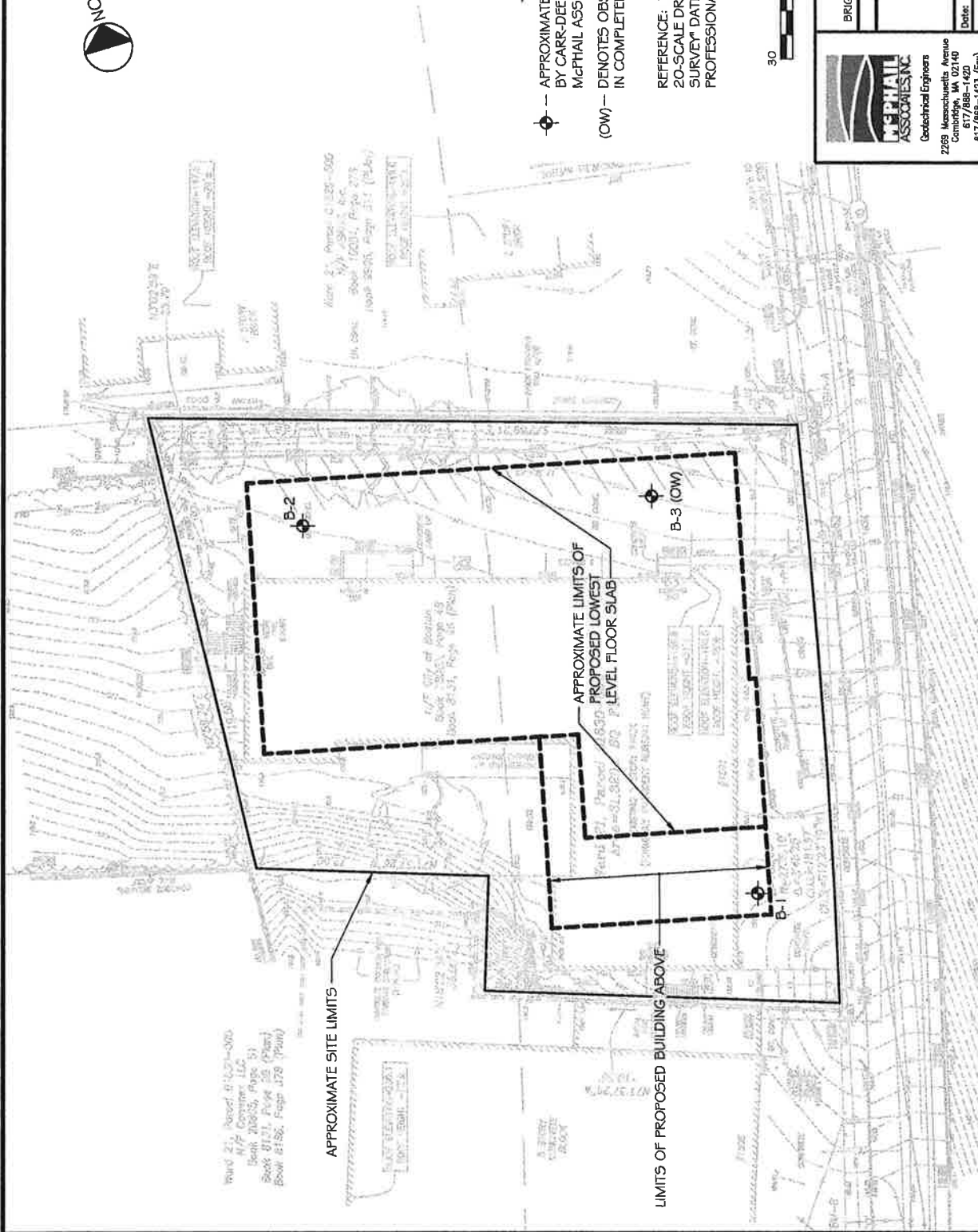
SCALE 1:25,000

# PROJECT LOCATION PLAN

## 1501 COMMONWEALTH AVENUE

BRIGHTON

MASSACHUSETTS



LEGEND

- ⊕ -- APPROXIMATE LOCATION OF BORINGS PERFORMED BY CARR-DEE CORP. ON APRIL 2, 2009 FOR McPHAIL ASSOCIATES, INC.
- (OW) -- DENOTES OBSERVATIONS WELL INSTALLED IN COMPLETED BOREHOLE.

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED "ALTA/ACSM LAND TITLE SURVEY" DATED DECEMBER 16, 2008 BY FELDMAN PROFESSIONAL LAND SURVEYORS.

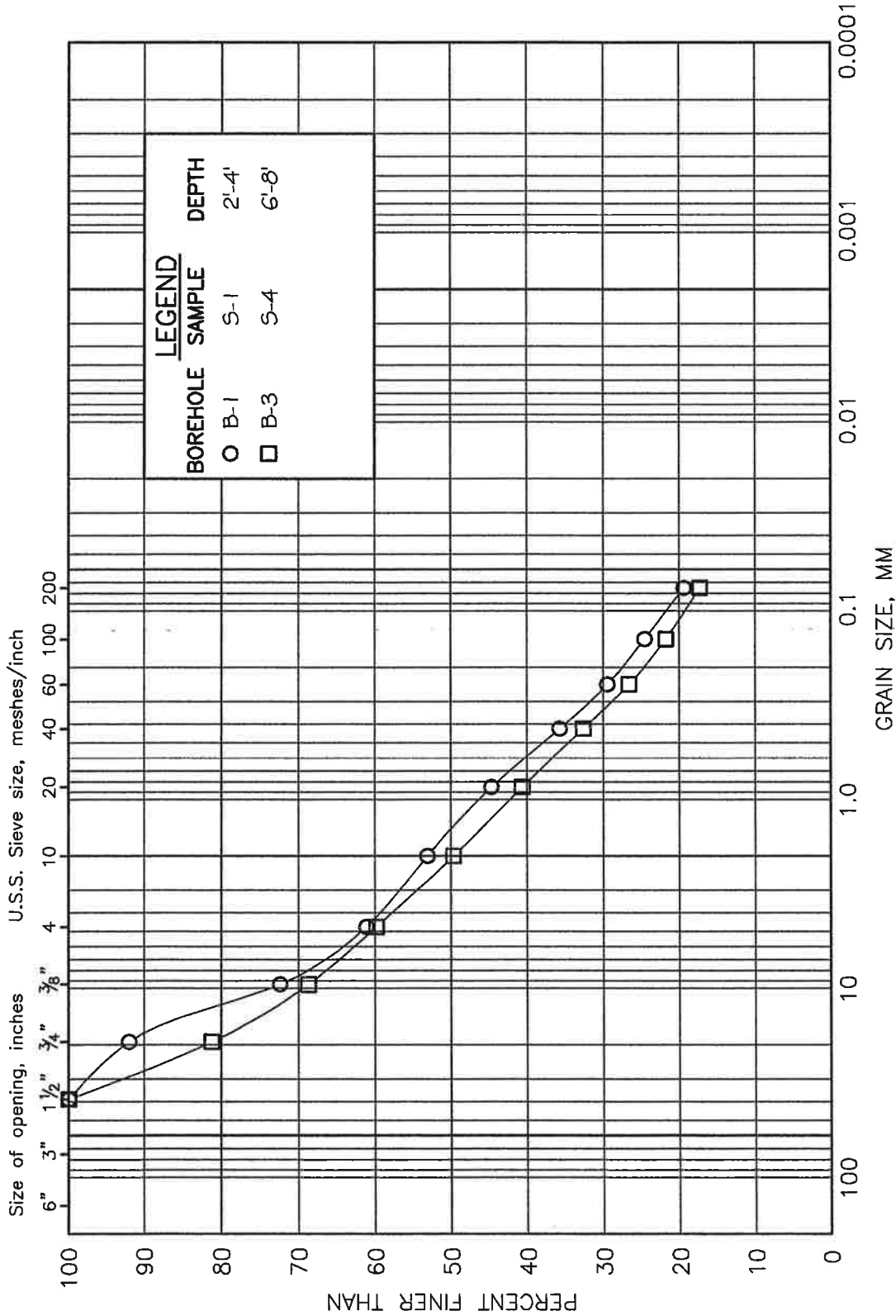


<p><b>McPHAIL ASSOCIATES, INC.</b> Geotechnical Engineers 2209 Massachusetts Avenue Cambridge, MA 02140 617/888-1400 617/888-1403 (Fax)</p>	<p>1501 COMMONWEALTH AVENUE BRIGHTON MASSACHUSETTS</p>
	<p>SUBSURFACE EXPLORATION PLAN FOR HART DEVELOPMENT ASSOCIATES OR McPHAIL ASSOCIATES, INC. CONSULTING GEOTECHNICAL ENGINEERS</p>
<p>Date: APRIL 2009 Project No.: 4805</p>	<p>Drawn: T.C.P. Checked: J.G.L. Scale: 1" = 30'</p>

GRAIN SIZE DISTRIBUTION  
FILL

FIGURE 3

M.I.T. GRAIN SIZE SCALE

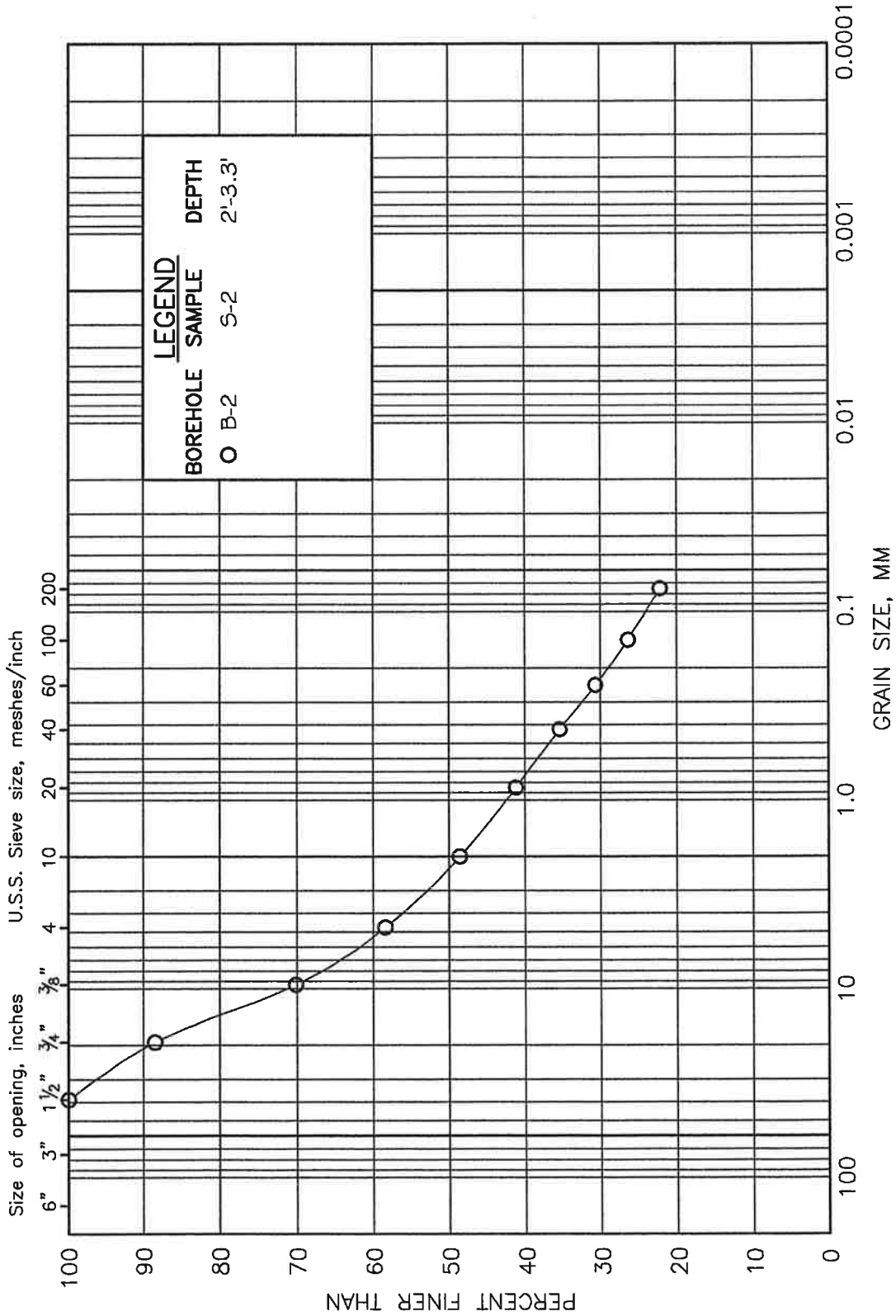


COBBLE SIZE	COARSE	MEDIUM	FINE	COARSE	MEDIUM	FINE	SILT SIZE	CLAY SIZE
	GRAVEL SIZE			SAND SIZE			FINE GRAINED	

GRAIN SIZE DISTRIBUTION  
GLACIAL TILL

FIGURE 4

M.I.T. GRAIN SIZE SCALE





## **APPENDIX A**

### **Limitations**





Geotechnical Engineers

### **Limitations**

This report has been prepared on behalf of and for the exclusive use of Hart Development Associates for specific application to the proposed Charing Cross project to be located at 1501 Commonwealth Avenue in Brighton, Massachusetts in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.

In the event that any changes in nature, design or location of the proposed structure are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report are modified or verified in writing.

The analyses and preliminary recommendations presented in this report are based upon the data obtained from the subsurface explorations performed at the approximate locations indicated on the enclosed plan. If variations in the nature and extent of subsurface conditions between the widely spaced explorations become evident during the course of construction, it will be necessary for a re-evaluation of the recommendations of this report to be made after performing on-site observations during the construction period and noting the characteristics of any variations.





**APPENDIX B**

**Carr-Dee Corp. Soil Boring Logs  
Boring Logs B-1, B-2, and B-3 (OW)**

# CARR-DEE CORP.

37 LINDEN STREET

P.O. BOX 67

MEDFORD, MA 02155-0001

Telephone (781) 391-4500

To: McPHAIL ASSOCIATES, INC. 2269 MASS. AVE. CAMBRIDGE, MA

Date: 4-3-2009

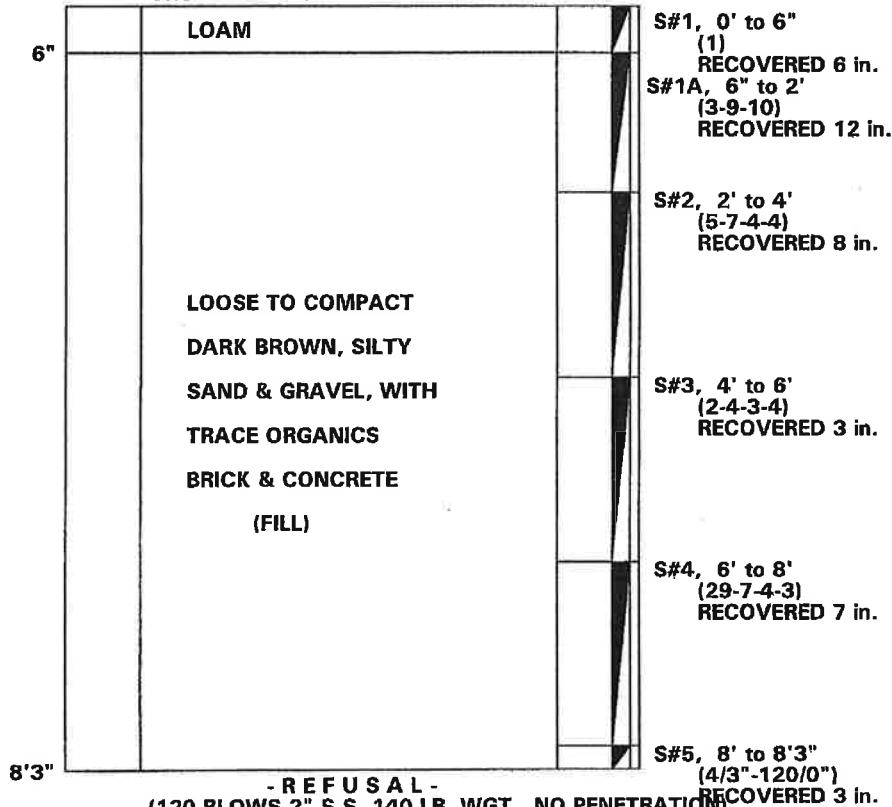
Job No.: 2008-179

Location: 1501 COMMONWEALTH AVE, BRIGHTON, MA

Scale: 1 in. = 2 ft.

## BORING 1

GROUND SURFACE EL. + 136.8



NOTE: NO WATER ENCOUNTERED

NOTE: NOTE REFUSAL WITH 140 LB, HAMMER @ 8'3"

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches (±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

# CARR-DEE CORP.

37 LINDEN STREET

P.O. BOX 67

MEDFORD, MA 02155-0001

Telephone (781) 391-4500

To: McPHAIL ASSOCIATES, INC. 2269 MASS. AVE. CAMBRIDGE, MA

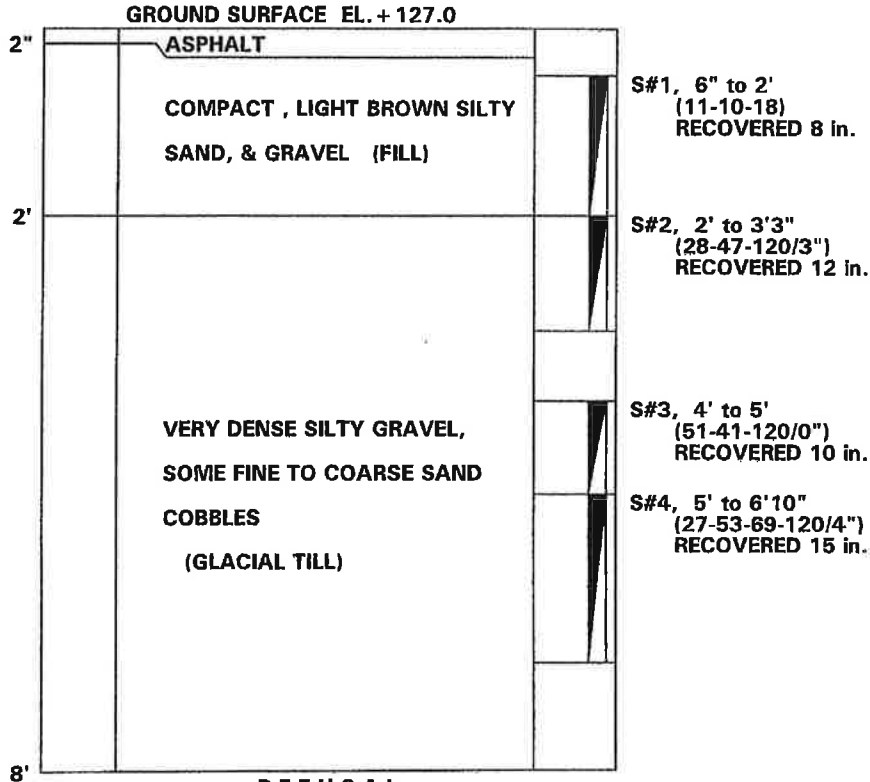
Date: 4-3-2009

Job No.: 2008-179

Location: 1501 COMMONWEALH AVE, BRIGHTON, MA

Scale: 1 in. = 2 ft.

## BORING 2



- REFUSAL -  
(120 BLOWS 2" S.S. 140 LB, WGT., NO PENETRATION)  
2" SPLIT SPOON SAMPLE  
DRILLER: G.SMITH, INSPECTOR: M.GRYZWACZ  
DATE STATED & COMPLETED 4-2-2009

NOTE: NO WATER ENCOUNTERED

NOTE: NOTE REFUSAL WITH AUGERS @ 8'FT

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

# CARR-DEE CORP.

37 LINDEN STREET

P.O. BOX 67

MEDFORD, MA 02155-0001

Telephone (781) 391-4500

To: McPHAIL ASSOCIATES, INC. 2269 MASS. AVE. CAMBRIDGE, MA

Date: 4-3-2009

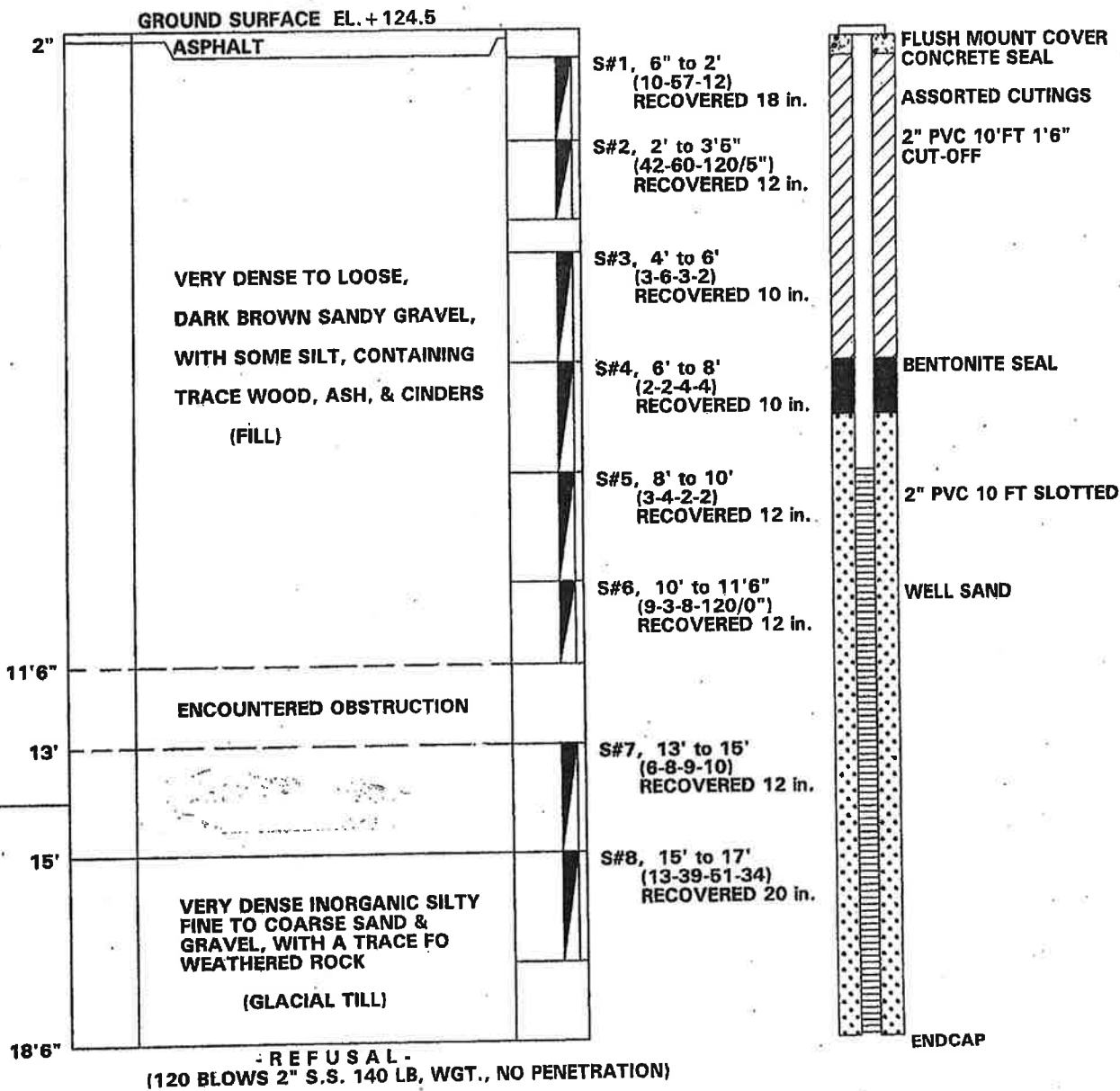
Job No.: 2008-179

Location: 1501 COMMONWEALH AVE, BRIGHTON, MA

Scale: 1 in. = 3 ft.

## BORING 3-OW

## MONITORING WELL



WATER LEVEL 14'  
 SIZE OF AUGERS 3-3/4" I.D. LENGTH 18'6"  
 DRILLER: G.SMITH, INSPECTOR: M.GRYZWACZ  
 DATE STATED & COMPLETED 4-2-2009

NOTE: AUGER REFUSAL @ 18'6"

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches (±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).



## **APPENDIX C**

**McPhail Associates, Inc.  
Groundwater Monitoring Reports**





**1501  
Commonwealth Ave.**

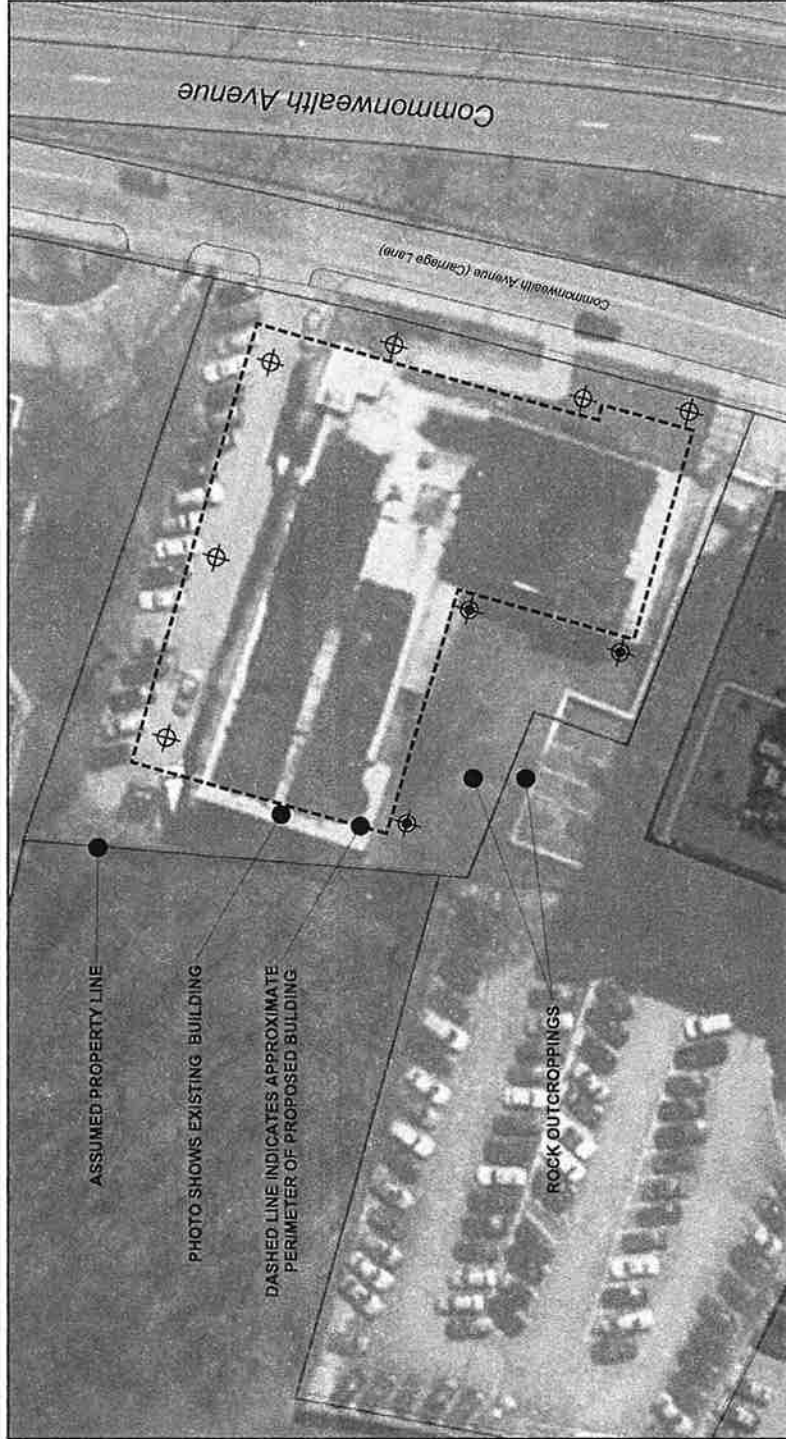
Tise Design Associates  
246 Walnut St.  
Newton, MA 02458  
617-581-6601  
www.tisedesign.com

**PROJECT  
Charring Cross**

**DRAWN BY  
SET**

**ISSUE  
12-05-08**

**DESCRIPTION  
Boring Locations**



**Site Plan - 1501 Commonwealth Avenue**

- SUGGESTED PERIMETER HOLE LOCATIONS
- INACCESSIBLE BY VEHICULAR RIG BUT CRITICAL

**A0.1**







**McPHAIL**  
ASSOCIATES, INC

Geotechnical Engineers

**PHASE I ENVIRONMENTAL SITE  
ASSESSMENT REPORT**

**CHARING CROSS**

**1501 COMMONWEALTH AVENUE**

**BRIGHTON      MASSACHUSETTS**

for

**Hart Development Associates**

June 23, 2009

Project No. 4903.9.00



Geotechnical Engineers

June 23, 2009

Hart Development Associates  
288 Newbury Street  
Boston, MA 02115

Attention: Mr. Daniel R. Hart

Reference: Charing Cross, 1501 Commonwealth Avenue; Brighton, Massachusetts  
Phase I Environmental Site Assessment Report

Ladies and Gentlemen:

This report documents the results of our Phase I Environmental Site Assessment for the 1501 Commonwealth Avenue property (the "subject site") located in the Brighton area of Boston, Massachusetts. Refer to the Project Location Plan, **Figure 1**, for the general site location.

This report has been prepared and these services were performed in accordance with our proposal dated October 17, 2008 and the subsequent authorization of Mr. Daniel R. Hart of Hart Development Associates. These services are subject to the limitations contained in **Appendix A**.

This environmental site assessment was conducted pursuant to the provisions contained in the following: (1) Massachusetts Oil and Hazardous Materials (OHM) Release Prevention and Response Act (MGL Chapter 21E); (2) Massachusetts Contingency Plan (MCP) 310 CMR 40.0000, (3) ASTM E 1527-05 Standard Guide for Environmental Site Assessment: Phase I Environmental Site Assessment Process, as referred to in 40 CFR Part 312 (the All Appropriate Inquiries Rule), and (4) ASTM E 1903-02 Phase II Environmental Assessment. The objective of the environmental investigation was to identify the potential presence of Recognized Environmental Conditions (RECs), as defined by ASTM, at the subject site or at nearby property that may pose a threat to the subject site.

Our scope of services consisted of the following, (i) an assessment of the site history relative to the possible presence of oil and hazardous materials, (ii) a visual inspection of the site and surrounding area, (iii) a records search at the offices of the City of Boston for records of permits issued for the storage and/or use of oil or hazardous materials at the site, (iv) a search of the Massachusetts Department of Environmental Protection (DEP) online database and a file review at the DEP Northeast Regional Office for files and records of incidents involving releases of oil and/or hazardous materials at and in the vicinity of the subject site, (v) a database search of Federal and State records including the National Priorities List, the CERCLA List and the RCRIS Handlers List by EDR Inc., (vi) a subsurface investigation consisting of borings and installation of a groundwater monitoring well; (vii) screening soil samples obtained from the borings for Total Volatile Organic Compounds (TVOCs); and (viii) assessing the above and documenting the results in a Phase I Environmental Site Assessment Report. The conclusions presented herein and our professional opinions are based solely on the scope of work conducted.

The scope of our Phase I Environmental Site Assessment did not include an investigation of the property for the presence of urea formaldehyde foam insulation (UFFI), lead-based paint, mold, mildew, asbestos containing materials or other naturally occurring pollutants such as radon gas. Further, we did not perform a title or environmental lien search.

Fronting onto Commonwealth Avenue to the east, the approximately 31,319 square-foot subject site is bounded by the Brighton Marine Health Center to the north, Kindred Hospital to the south, and wooded



Geotechnical Engineers

Hart Development Associates  
June 23, 2009  
Page 2

land to the west. The subject site is currently occupied by a vacant 2-story, concrete/masonry building which was formerly used as a nursing home. It is understood that the property was acquired by the City of Boston in 2005.

Historical research indicated that the subject site was undeveloped land up until the early 1960s at which time the existing building was constructed at the subject site. Since that time, the subject site building had been utilized as a nursing home facility until 2005. It is understood that since 2005 the subject site building has been vacant. Adjacent property use consists of predominantly residential and commercial land during this period. The boundaries of the subject site are indicated on **Figure 2**.

Surficial observations of readily observable portions of the subject site and surrounding properties at the time of our site visit did not identify evidence of spills or releases of OHM that would be considered to represent RECs with respect to the subject site. However, we recommend that the locked wooden box labeled "Infectious Waste" and "Biohazard" observed within a storage room and plastic buckets and containers observed within the elevator room and storage room located in the eastern portion of the basement and their contents be properly disposed prior to the demolition of the existing building.

A review of readily available records contained in the City of Boston online databases did not identify the presence of RECs with respect to the subject site.

EDR's review of local, state and federal databases indicated that the subject site is not a MADEP listed release site. Further, a review of the information provided in the available databases searched by EDR indicated that the majority of the properties located in the vicinity of the subject site do not pose a threat of impact to the subject site and are not considered RECs. However, the files for four (4) listed MCP release sites located within 0.25 miles of the subject site were reviewed at the DEP's Northeast Regional Office to assess whether they could potentially pose a threat of impact to the subject site. Based on our review of readily available information at the DEP Northeast Regional Office, the four (4) release sites are not considered likely to pose a threat of impact to the subject site and therefore are not considered RECs.

The subsurface investigation performed primarily for geotechnical purposes included the performance of three (3) borings, one (1) of which was completed as groundwater monitoring well. Topsoil and asphalt surface treatments at the subject site were underlain by granular fill material containing trace amounts of brick, glass, ash and cinders that varied from 2 to 15 feet in thickness. Underlying the fill, the explorations encountered a natural deposit of very dense glacial till and/or bedrock. Where encountered, the glacial till varied from 3.5 to 6 feet in thickness. The stabilized groundwater level within the observation well installed in completed borehole B-3 was observed at 14 feet below the existing ground surface, corresponding to Elevation +110.5.

The soil samples obtained from the borings were screened for the presence of Total Volatile Organic Compounds (TVOCs). The TVOC results of the soil samples obtained from the borings were all 0 parts per million (ppm), or equivalent to ambient air background levels. Further, these samples did not exhibit the presence of visual or olfactory evidence of OHM. In the absence of visual or olfactory indications of the presence of OHM, TVOC results below 10 ppm are not considered likely to indicate the presence of a release of OHM. Therefore, RECs were not identified in soil during the subsurface investigation.

It is understood that the proposed development includes demolition of the existing structure and construction of a 4-story residential building with two levels of at-grade parking that will closely approximate the existing grades along Commonwealth Avenue. Based on the proposed redevelopment of



Geotechnical Engineers

Hart Development Associates  
June 23, 2009  
Page 3

the subject site, off-site disposal of excess existing fill material may be necessary. Chemical analysis of these soils would be required for legal off-site disposal. Off-site re-use and disposal of soils is governed by the Massachusetts Contingency Plan (MCP) and DEP Soil Management Policies. In general, soils exhibiting contaminant concentrations above the RCS-1 reportable levels contained in the MCP are considered Regulated for off-site disposal and require the use of either a Bill of Lading, Material Shipping Record or Uniform Hazardous Waste Manifest. However, while soils exhibiting contaminant concentrations below the RCS-1 levels are considered "Unregulated" for off-site reuse/disposal (i.e. do not require the use of a Bill of Lading or Material Shipping Record), they may not be re-used in areas where the existing contaminant concentration levels are appreciably lower in accordance with DEP's anti-degradation policy.

Off-site disposal of excavated urban fill soils is governed by the DEP Policy #WSC-94-400 entitled "Interim Remediation Waste Management Policy for Petroleum Contaminated Soils", dated April 21, 1994, DEP Policy #COMM-97-001 entitled "Reuse and Disposal of Contaminated Soils at Massachusetts Landfills", dated August 15, 1997 and applicable sections of the MCP. Contaminants regulated by the MCP and the above referenced policies include total petroleum hydrocarbons, volatile organics, heavy metals, polynuclear aromatic hydrocarbons, pesticides, PCB's, pH, reactivity and flashpoint.

In addition, in consideration of the potential on-site reuse of fill material that was observed to contain ash and cinder, chemical analysis of the fill is recommended to assess the potential requirement for providing a 1-foot thickness of clean soil at finish grade in lawn and landscaped areas as a protective measure to future residents.

In conclusion, we have performed an Environmental Site Assessment in conformance with the scope and limitations of ASTM E-1527-05 for the property identified as Charing Cross located at 1501 Commonwealth Avenue in the Brighton section of Boston, Massachusetts. Any exceptions to, or deletions from this practice are described in the Data Gap section of this report. This assessment has identified no recognized environmental conditions in connection with the subject site.



Geotechnical Engineers

Hart Development Associates  
June 23, 2009  
Page 4

We trust that the above is sufficient for your present requirements. Should you have any questions concerning the recommendations presented herein, please do not hesitate to call us.

Very truly yours,

McPHAIL ASSOCIATES, INC.

A handwritten signature in cursive script, appearing to read "Amy M. Falconeiri".

Amy M. Falconeiri

A handwritten signature in cursive script, appearing to read "Joseph G. Lombardo, Jr.".

Joseph G. Lombardo, Jr.

A handwritten signature in cursive script, appearing to read "Ambrose J. Donovan".

Ambrose J. Donovan, P.E., L.S.P.

Enclosure

F:\WP5\COVERS\4903 ESAII Cvr Ltr.wpd

AMF/jgl/ajd



Geotechnical Engineers

## TABLE OF CONTENTS

<u>ITEM</u>	<u>PAGE</u>
PURPOSE AND SCOPE .....	1
SITE AND LOCUS DESCRIPTION .....	3
PROPOSED DEVELOPMENT .....	4
SITE HISTORY .....	4
USER QUESTIONNAIRE .....	6
SITE RECONNAISSANCE .....	6
MUNICIPAL AND STATE RECORD REVIEW .....	9
ENVIRONMENTAL DATABASE REPORT .....	12
MASSACHUSETTS DEP RECORDS REVIEW .....	15
SUBSURFACE INVESTIGATION BY McPHAIL .....	18
SUBSURFACE CONDITIONS .....	19
SOIL SCREENING RESULTS .....	20
CONSTRUCTION CONSIDERATIONS .....	21
DATA GAPS .....	22
SUMMARY AND CONCLUSIONS .....	22
ENVIRONMENTAL PROFESSIONAL STATEMENT .....	26



Geotechnical Engineers

**FIGURES**

Figure 1: Project Location Plan

Figure 2: Site Investigation Plan

**TABLES**

Table 1: PID Headspace Readings



Geotechnical Engineers

## APPENDICES

Appendix A:	Limitations
Appendix B:	Sanborn Maps City Directory
Appendix C:	Photographs
Appendix D:	City of Boston Municipal Records
Appendix E:	EDR Data Report Executive Summary EDR Report on CD
Appendix F:	Carr-Dee Corp.'s Boring Logs Groundwater Monitoring Well Report





Geotechnical Engineers

**PURPOSE AND SCOPE**

The purpose of this report by McPhail Associates, Inc. is to present the results of a Phase I Environmental Site Assessment for the property identified as Charing Cross located at 1501 Commonwealth Avenue (the "subject site") in the Brighton, Massachusetts. Refer to the Project Location Plan, **Figure 1**, for the general site locus. The limits of the subject site, which define the limits of our investigation, are shown on the enclosed **Figure 2**.

The investigation was performed pursuant to the Massachusetts Oil and Hazardous Materials Release Prevention and Response Act (MGL Chapter 21E), the Massachusetts Contingency Plan (310 CMR 40.0000) and in accordance with ASTM E 1527-05 standards, as referred to in CFR Part 312 (the All Appropriate Inquiries Rule). These services were performed and this report was prepared in accordance with our proposal dated October 17, 2008, and the subsequent authorization of Hart Development Associates. These services are subject to the limitations in **Appendix A**.

Our scope of services consisted of the following: (i) an assessment of the site history relative to the possible presence of Oil and Hazardous Materials (OHM); (ii) a visual inspection of the site and surrounding area; (iii) a records search on the on-line databases and at the municipal offices of the City of Boston for records of permits issued for the storage and/or use of oil or hazardous materials at the site; (iv) a database search of Federal and State records including the National Priorities List, the CERCLA List and the RCRIS Handlers List by EDR Inc.; (v) a search of the Massachusetts Department of Environmental Protection (DEP) online database and a review of files at the DEP Northeast Regional Office for records of incidents involving releases of oil and/or hazardous materials at and in the vicinity of the subject site; (vi) completion of a subsurface investigation primarily for geotechnical purposes which consisted of soil borings, the installation of a groundwater monitoring well, and Total Volatile Organic Compound (TVOC) screening of soil samples obtained



Geotechnical Engineers

from the borings, and (vii) assessing the above and documenting the results in a Phase I Environmental Site Assessment Report.

Excluded from our Phase I Environmental Site Assessment scope of work were a title search, a lien search, an assessment for the presence of lead-based paint, urea formaldehyde foam insulation (UFFI), mold, mildew, asbestos containing materials and naturally occurring pollutants such as radon gas.

The objectives of this Phase I portion of this Environmental Site Assessment, as defined in the ASTM E-1527-05 Standard, are to identify the potential presence of Recognized Environmental Conditions at the subject site or on surrounding properties.

The term Recognized Environmental Condition (REC) is defined by ASTM E 1527-05 as the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release...into structures on the property, or into the ground, groundwater or surface water of the property. In addition, ASTM E 1527-05 indicates that the term REC does not include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies.

The objective of the subsurface investigation was to assess soil and groundwater conditions across the site in consideration of the proposed scope for development. Specifically, the subsurface investigation at the subject site included the performance of soil borings and the installation of a groundwater monitoring well.

Our professional opinion is based solely on the scope of the work conducted and pertains to the subject site limits as shown on **Figure 2** and defined herein.



Geotechnical Engineers

**SITE AND LOCUS DESCRIPTION**      **Location and Description**

Fronting onto Commonwealth Avenue to the east, the subject site is bounded by the Brighton Marine Health Center to the north, Kindred Hospital to the south, and wooded land to the west. The subject site has a plan area of approximately 31,319 square feet and is currently occupied by a vacant 2-story, concrete and masonry building with a basement. The subject site building was formerly utilized as a nursing home facility.

The approximate limits of the subject site are depicted in **Figure 2** (Site Plan) which is based upon a plan entitled "ALTA/ACSM Land Title Survey, 1501 Commonwealth Avenue, Boston, Mass." prepared by Feldman Professional Land Surveyors and dated December 2008.

The site is located at coordinates of 42°20'50.0" north and 71°8'27.9" west, corresponding to Universal Transverse Mercator (UTM) coordinates of 323,640.1 meters east and 4,690,334.0 meters north in Zone 19.

**Site and Vicinity General Characteristics**

Based on a review of Massachusetts Geographic Information Systems DEP Priority Resources' Map, the subject site is not located within the boundaries of a Potentially Productive Aquifer or within a Zone II Interim Wellhead Protection Area as defined by the Massachusetts Department of Environmental Protection. Further, there are no public drinking water supply wells, no Areas of Critical Environmental Concern, no fish habitats, no habitats of Species of Special Concern or Threatened or Endangered Species within 1-mile of the subject site.

There are no water bodies or wetland areas on the subject site. The nearest body of water is the Chestnut Hill Reservoir, which is located approximately 5,000 feet to the southwest of the subject site. An area designated as Protected Open Space is located adjacent to the



Geotechnical Engineers

northwestern boundary of the subject site. No areas designated as solid waste sites (landfills) are noted as being within 1,000 feet of the site.

### **Current Uses of the Property**

The subject site is currently occupied by a vacant, two-story, concrete/masonry building formerly utilized as a nursing home.

### **Description of Structures, Roads and Other Improvements**

The existing building is heated by natural gas and is serviced by municipal water and sewer connections and below grade electrical service. Catch basins located on Commonwealth Avenue control surface drainage.

### **Current Uses of Surrounding Properties**

The subject site fronts onto Commonwealth Avenue to the west and bounded by the Brighton Marine Health Center to the north, Kindred Hospital to the south, and wooded land to the west.

## **PROPOSED DEVELOPMENT**

It is understood that the proposed development includes demolition of the existing structure and construction of a 4-story residential building with two levels of at-grade parking that will closely approximate the existing grades along Commonwealth Avenue. The proposed structure will not include below-grade space.

## **SITE HISTORY**

Our research into the history of the subject property included a review of Sanborn Fire Insurance Maps dated 1898, 1925, 1950, 1964, 1989, 1990, 1993, 1994, 1995 and 1996 as well as a City Directory search completed by EDR. Copies of the Sanborn Maps and City Directory are included in **Appendix B**.



Geotechnical Engineers

The 1898 and 1925 Sanborn Maps indicate that the subject site and the abutting properties to the north, south and west of the subject site were undeveloped at this time. The 1925 Sanborn Map indicates that the properties located to the east of the subject site and on the opposite side of Commonwealth Avenue were occupied by stores and residential structures.

The 1950 Sanborn Map indicates the subject site and abutting properties to the west and south of the subject site were undeveloped. The properties located to the east of the subject site on the opposite side of Commonwealth Avenue are indicated to have generally remained unchanged. The property located to the north of the subject site is indicated to have been occupied by the United States Marine Hospital complex including single attendant quarters, nurses home, medical officers quarters and a 10-car parking garage.

The 1964 Sanborn Map indicates that the subject site was occupied by the existing building. The Sanborn Map indicated that the building is utilized as a rest home. The properties located to the north, south, east and west of the subject site are indicated to have generally remained unchanged.

The 1989 through 1996 Sanborn Maps depict that the subject site has generally remained unchanged. The property located to the south of the subject site is indicated to be occupied by an office building with an associated parking lot. The property located to the north of the subject site has generally remained unchanged except that the name of the complex has changed to Brighton Marine Public Health. The properties located to the west and east of the subject site have generally remained unchanged during this time period.



Geotechnical Engineers

The results of our review of historical records did not indicate the presence of RECs with respect to historical usage of the subject site and surrounding properties.

**USER  
QUESTIONNAIRE**

As part of our research into the historical use of the subject site, a questionnaire was completed by Daniel Hart on behalf of Hart Development Associates, in accordance with the User Questionnaire contained in Appendix X.3 of ASTM E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. Information from the questionnaire has been incorporated into appropriate sections of this report.

**SITE  
RECONNAISSANCE**

A visual reconnaissance of the subject site and of surrounding properties was conducted on June 18, 2009 by a representative of McPhail Associates, Inc., accompanied by Bill Evans, a representative of the City of Boston Department of Neighborhood Development (DND). DND is the current owner of the subject site. In summary, the subject site and surrounding properties did not exhibit surficial evidence of RECs at the time of our site visit.

**A. Subject Site**

Currently, the subject site is occupied by a vacant two-story, concrete and masonry building with a partial basement. However, the Boston Fire Department was observed to be utilizing the subject site building as a training facility at the time of our site visit. It is understood that the subject site building was formerly utilized as a rest home (nursing home). An asphalt paved parking lot exists along the northern portion of the subject site.

Common areas, bedrooms, bathrooms, former nursing stations and closets were observed to occupy the first and second floors of the subject



Geotechnical Engineers

site building. Empty laundry barrels were observed on the second floor. Only de minimis stains and odors were observed on the first and second floors of the subject site building. No RECs were observed on the first and second floors of the subject site building.

A kitchen, laundry room, offices, storage rooms, elevator room and a boiler room were observed in the basement. Oxygen tanks were observed in the entrance-way of the basement. According to Bill Evans, the oxygen tanks are utilized for Boston Fire Department training. Medical equipment, maintenance supplies, general cleaning products and paint supplies were observed in the storage rooms. A locked wooden box labeled "Infectious Waste" and "Biohazard" was observed within a storage room located in the eastern portion of the basement. Mr. Evans indicated that he was unaware of the contents of this wooden box. No stains or odors were observed on the floor surface in the vicinity of the wooden box. The elevator room located in the eastern portion of the basement was observed to contain clean oil absorbent pads, two (2) 5-gallon buckets labeled oil and a small plastic container labeled solvent. Only de minimis staining was observed in the elevator room. Floor drains were not observed within the vicinity of the elevator room. A gas-fired furnace was observed within the boiler room located in the eastern portion of the basement. No evidence of spills, stains or odors were observed in the boiler room. Three (3) dry sump pits were observed in the western portion of the partial basement. No stains or odors were observed in the vicinity of the sump pits. While the presence of the locked wooden box labeled "Infectious Waste" and "Biohazard" located within a storage room and two (2) 5-gallon buckets labeled oil and a small plastic container labeled solvent located in the elevator room are not considered RECs, we recommend that the box, buckets and container and their contents be properly disposed prior to the demolition of the existing building. No RECs were observed in the basement.



Geotechnical Engineers

### Exterior

A concrete ramp and a grass area were observed in the front of the subject site building adjacent to Commonwealth Avenue. No stains or odors were observed in this area.

An asphalt paved parking lot was observed on the north side of the existing building. Cracks were observed in the asphalt pavement, and some minor staining likely attributable to vehicular traffic, were observed on the asphalt surface. A gated area was observed in the rear of the parking lot. According to Mr. Evans, a dumpster was formerly stored within the gated area. No evidence of spills, stains or odors were observed in the vicinity of the dumpster. With the exception of some minor surficial stains observed on the asphalt surface, there were no other stains or odors observed in the parking lot area.

A vegetated area was observed on the southwestern side of the existing building. A wood platform was observed on the ground surface in this area. According to Mr. Evans, the platform was formerly utilized as a patio by the former building occupants. A large bedrock outcrop was observed along the perimeter of the southern portion of the subject site. No stains, odors or stressed vegetation were observed in the southwestern portion of the subject site.

In summary, surficial observations of readily observable portions of the subject site did not identify spills or releases of OHM that would be considered to represent RECs with respect to the subject site.

### **B. Surrounding Properties**

Visual observations of surrounding properties were made from outside of the property limits.





Geotechnical Engineers

As indicated above, the Kindred Hospital complex bounds the subject site to the north. Three (3) aboveground storage tanks (ASTs) were observed on the property located closest to the northern boundary of the subject site. The ASTs appeared in good condition and no signs of stains or odors were observed from the property limits at the time of our site visit.

The property located to the south of the subject site is occupied by a 7-story Health Care Center. A transformer was observed along the southeastern portion of the property. No stains or odors were observed in the vicinity of the transformer. A parking garage was observed to be located on the western portion of the property. No stains or odors were observed from the property limits at the time of our site visit.

The property located to the west of the subject site is occupied by Fidelis Park. The Fidelis Park property was observed to consist of wooded and vegetated land. No stains, odors or stressed vegetation were observed from the property limits at the time of our site visit.

Surficial observations of readily observable portions of the surrounding properties to the subject site did not identify spills or releases of OHM that would be considered to represent an REC with respect to the subject site.

Photographs obtained during our Site Reconnaissance are included in **Appendix C**.

**MUNICIPAL AND  
STATE  
RECORD  
REVIEW**

Our municipal record review focused on information related to the potential use, storage, generation, and disposal of OHM at the subject site or surrounding properties. The record review included on-line research of the City of Boston Assessors Office, the City of Boston Inspectional Services Department and the State Fire Marshall's UST Registry On-Line Database. A written inquiry was made to the Boston Public Health Commission and City of Boston Fire Department Fire Prevention Division.



Geotechnical Engineers

**1. City of Boston Assessors' Office**

According to the City of Boston Assessors Office on-line database, the subject site is listed with an address of 1501 Commonwealth Avenue in Brighton and identified with Parcel ID 2101830000. The property card indicates that as of January 1, 2009, the City of Boston is the owner of the property. The property card indicates that the subject site consists of 31,319 square feet of land. A copy of the on-line Assessors' information is included in **Appendix D**.

**2. Boston Inspectional Service Department (ISD)**

Records of current and expired permits for the subject site and surrounding properties were reviewed on the City of Boston Inspectional Services Department online database on June 9, 2009. The majority of the permits on file for the subject site were documents regarding the subdivision of the 1501 Commonwealth Avenue lot. In addition, the files included permits for renovations and repairs of the subject site building including the installation of plumbing and electrical services and elevator repairs.

A file search of the ISD on-line database indicated that there are no records related to the past or current storage, use or spills of oil and/or hazardous materials associated with the properties located to the north, south and west of the subject site.

**3. Boston Public Health Commission**

A written request for records related to past inspections or possible violations for the addresses of 1501, 1505 and 1465 Commonwealth Avenue and Fidelis Way Park was submitted to the Boston Public Health Commission on December 5, 2008.



Geotechnical Engineers

According to a written response from the Boston Public Health Commission dated December 16, 2008, there were no records of asbestos abatement permits, environmental hazard inspections, violations, or DEP correspondences for the addresses referenced above. However, the Environmental Health Office did indicate that one (1) asbestos abatement permit was contained in their files for the property with the address of 1505 Commonwealth Avenue. The asbestos abatement permit was issued to 1505 Commonwealth Avenue and dated January 31, 2008 for the abatement of 9 square feet.

A copy of the Environmental Health Office's response and record of permit are included in **Appendix D**.

According to Mr. Daniel Hart and Mr. Bill Evers, the subject site use has not changed and has remained vacant since our record request to the Boston Public Health Commission on December 5, 2008.

#### **4. City of Boston Fire Department - Fire Prevention Division**

A written request for available records related to the historic storage of oil and hazardous materials at the subject site and surrounding properties was submitted to the City of Boston Fire Department Fire Prevention Division on December 5, 2008.

According to the written response received from the City of Boston Fire Prevention Division dated January 16, 2009, their records do not contain information documenting the on-site storage, use, or spills of OHM at the subject site or surrounding properties. A copy of the Fire Prevention Division's response is included in **Appendix D**.

According to Mr. Daniel Hart and Mr. Bill Evers, the subject site use has not changed and has remained vacant since our record request to the City of Boston Fire Department Fire Prevention Division on December 5, 2008.



Geotechnical Engineers

**5. UST Registry On-Line Database**

Our review of the Massachusetts State Fire Marshall's Underground Storage Tank (UST) Registry Online Database on June 9, 2009, did not identify records of past or current USTs at the subject site or surrounding properties. The following is information related to the documented USTs that are located closest to the subject site, including A-Z Service Station, a gas station located approximately 1,100 feet to the south of the subject site at 1550 Commonwealth Avenue and Sisters of St. Joseph, a church located approximately 1,500 feet to the northwest of the subject site at 637 Cambridge Street:

<u>Address</u>	<u>USTs Removed</u>		<u>USTs In Use</u>		<u>Contents</u>
	<u>Size</u>		<u>Size</u>		
1550 Commonwealth	(4)				Unknown
1550 Commonwealth	-		(3)-8,000 gal		Gasoline
1550 Commonwealth	-		(1)-500 gal		Waste Oil
637 Cambridge St	(1)-2,000 gal		-		Gasoline

Based on the location of these sites with respect to the subject site, they are not considered likely to pose a threat of impact to the subject site and hence, are not considered RECs.

**ENVIRONMENTAL  
DATABASE  
REPORT**

Research of federal and state records was conducted by EDR Sanborn, Inc. of Milford, Connecticut, and is summarized in a database report dated November 19, 2008. The report contains results of a federal and state database review indicating potential environmental concerns in accordance with ASTM-established minimum search distances. A copy of the executive summary of the EDR database report is included in **Appendix E**. The entire EDR report is included on a compact disk in **Appendix E**.



Geotechnical Engineers

The EDR report indicates that the subject site address is not listed in any of the local, state or municipal databases searched by EDR. Further none of the database entries reviewed for this assessment indicate the presence of evidence of RECs with respect to the subject site.

Based upon information provided by EDR, there are no U.S. Environmental Protection Agency (EPA) National Priority List (NPL) sites or Proposed National Priority List sites located within one mile of the subject site according to the database updated as of September 29, 2008. The EDR report also indicates that there are no listed Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) sites located within one-half mile of the subject site based upon the EPA database updated as of July 9, 2008.

A review of the Resource Conservation Recovery Information System (RCRIS) Hazardous Waste Handlers List, dated September 10, 2008 indicated that there is one (1) RCRIS Conditionally Exempt Small Quantity Generator (CESQG) site located within 0.25-miles of the subject site. This CESQG site is identified as Warren Cleaners with an address of 1439A Commonwealth Avenue and is located approximately 400 feet to the north of the subject site. According to the database report, there are no violations reported at this site. Since this listed CESQG site is listed with no violations, this site is not considered an REC.

The RCRIS Non Generators (NonGen) database identified two (2) sites located within 0.25-miles of the subject site. The RCRIS NonGen sites are identified as Allston Dry Cleaners with an address of 1436 Commonwealth Avenue located approximately 350 feet to the northeast of the subject site and Royal Cleaners formerly identified as William Dry Cleaners & Tailors with an address of 171 Allston Street located approximately 750 feet to the east of the subject site. These two NonGen sites are listed with no violations on record. Since the listed NonGen sites are listed with no violations, these sites are not considered RECs.



Geotechnical Engineers

EDR reported that there are two (2) state-listed dry cleaners located within the ASTM standard distance of 0.25-miles based on the Massachusetts DEP Dry Cleaner database current as of August 12, 2008. Allston Dry Cleaners with an address of 1436 Commonwealth Avenue, is located approximately 350 feet to the northeast of the subject site and Royal Cleaners with an address of 171 Allston Street, is located approximately 750 feet to the east of the subject site. Based on the EDR information, no violations or releases were reported at these state-listed dry cleaner sites. Based on the above mentioned information, these state-listed dry cleaners are not considered RECs.

EDR also reported no state Solid Waste Facility/Landfill Sites within approximately 0.5-miles of the subject site based upon a state file updated as of July 1, 2008. Further, there are no Manufactured Gas Plant (MGP) sites located within one-mile of the subject site.

A review of EDR's list of "orphan sites", that is those sites with inadequate address information, did not indicate sites to be in close proximity to the subject site.

EDR's review of state environmental databases identified a total of ninety-eight (98) DEP listed release sites within a one-mile radius of the subject site. Of the 98 release sites reported by EDR, the majority are either located at a distance of more than 0.25-miles from the subject site, are located at topographically downgradient or cross-gradient locations with respect to the subject site, and/or have achieved Class A or B Response Action Outcome (RAO) status in accordance with the MCP which indicates that a Permanent Solution has been achieved and a Condition of No Significant Risk exists at these sites. Therefore, the majority of these sites are not considered likely to pose a threat of impact to the subject site, and hence, are not considered RECs.

Based upon their current MCP compliance status, the distance from the subject site to the release sites, and the location of these release sites



Geotechnical Engineers

with respect to the subject site, four (4) reported release sites were considered to potentially pose a threat to the subject site. These four (4) DEP listed release sites and their potential impact to the subject site are discussed in greater detail in the Massachusetts DEP Record Review section of this report.

#### **MASSACHUSETTS DEP RECORDS REVIEW**

A review of available files at the Massachusetts Department of Environmental Protection (DEP) Northeast Regional Office in Wilmington, Massachusetts was conducted on December 18, 2008. Files were reviewed for four (4) sites located within 0.25-miles of the subject site to assess the potential impact of these release sites with respect to the subject site.

##### **1. 1505 Commonwealth Avenue, Release Tracking Number (RTN) 3-4465**

1505 Commonwealth Avenue abuts the subject site to the south. The DEP Online Disposal Site Database indicates that RTN 3-4465 was a Tier Classified Transition Site issued for a reportable release of fuel oil to soil on July 15, 1993. According to the readily available information contained in the RTN 3-4465 file, a fuel oil release occurred on this property as a result of a leaking UST that was located on the property to the south of this site at 1515 Commonwealth Avenue. The current Massachusetts DEP database indicates that a Class A-2 RAO Statement for this release was submitted to the DEP on July 30, 1997. The Class A-2 RAO was not included in the DEP file for review. Under the MCP, a Class A-2 RAO is predicated upon a Condition of No Significant Risk, as defined in the MCP, and on an achievement of a Permanent Solution. Given that remedial response actions were completed and an RAO has been submitted to the DEP, it is concluded that this release does not pose a threat of impact to the subject site, and is not considered to be an REC with respect to the subject site.



Geotechnical Engineers

**2. 1515 Commonwealth Avenue, RTN 3-11159**

The disposal site identified as 1515 Commonwealth Avenue is located approximately 175 feet to the south of the subject site and in an apparent upgradient direction from the subject site. A report entitled "Immediate Response Action (IRA) Completion Statement" dated July 18, 1996 prepared by Dames & Moore, Inc. indicated that a release of Non Aqueous Phase Liquid (NAPL) was identified in soil and groundwater as a result of an overflow of two (2) aboveground storage tanks (ASTs) located within the northern portion of the building. The presence of NAPL resulted in a 72 hour release notification to the DEP on June 17, 1994. The IRA report indicated that the release was detected during a subsurface investigation conducted as part of a real estate transfer. The report also indicated that approximately 35 tons of No. 4 fuel oil-impacted soils were removed from the site under a Bill of Lading (BOL) in October 1994. Further, the No. 4 fuel oil product identified in site groundwater was removed by hand-bailing and use of absorbent pads during the period of May 12 through 26, 1995. The DEP file for this release site included a report entitled "Method 3 Risk Characterization" prepared by Dames & Moore, Inc. and dated April 9, 1996. Based on the results of the Method 3 Risk Assessment, Dames & Moore concluded that "conditions at the Site do not present an unacceptable risk of noncarcinogenic health effects to humans". The current Massachusetts DEP database indicates that a Class A-2 RAO Statement for this release was submitted to the DEP on July 30, 1997. The Class A-2 RAO report was not included in the DEP file for review. Under the MCP, a Class A-2 RAO is predicated upon a condition of No Significant Risk, as defined in the MCP, and on an achievement of a Permanent Solution. Given that remedial response actions were completed and an RAO has been submitted to the DEP, it is concluded that this release does not pose a threat of impact to the subject site, and is not considered to be an REC with respect to the subject site.





Geotechnical Engineers

**3. 34 Fidelis Way, RTN 3-27609**

34 Fidelis Way is located approximately 850 feet to the southwest of the subject site. The DEP Online Disposal Site Database indicates that RTN 3-27609 was issued on April 1, 2008 for a 2-hour reportable condition associated with the sudden release of No. 2 fuel oil. A report entitled "Class A-2 Response Action Outcome Statement" prepared by Enviro Trac Ltd. and dated May 29, 2008 was reviewed for this release site. Based on the report, 25 to 75-gallons of No.2 fuel oil was released during a fuel delivery onto the sidewalk and parking area adjacent to the UST fill pipe. The report indicated that No.2 fuel oil flowed into a catch basin in the parking area and into a portion of the storm drain system. According to the report, the release did not reach the outfall of the storm drain system. The report indicated that response actions included the placement of absorbent material and the off-site disposal of oil, solids and sludge. Under the MCP, a Class A-2 RAO is predicated upon a condition of No Significant Risk, as defined in the MCP, and on an achievement of a Permanent Solution. Given that remedial response actions were completed and an RAO was submitted to the DEP indicating that a Permanent Solution was achieved and a Condition of No Significant Risk exists, it is concluded that this release does not pose a threat of impact to the subject site, and is not considered to be an REC with respect to the subject site.

**4. 11 Camelot Court, RTN 3-13323**

The release site identified as 11 Camelot Court is located approximately 700 feet to the north of the subject site. The DEP Online Disposal Site Database indicates that RTN 3-13323 was issued on January 12, 1996 for a 2-hour reportable condition associated with the release of No. 4 fuel oil to site soil and groundwater. According to a report titled "Response Action Outcome Report" prepared by Paragon and dated September 30, 2002, the No. 4 fuel oil release was a result of a leaking UST. The report indicated that the UST and approximately 15 cubic yards of contaminated



Geotechnical Engineers

soil were removed from the site as part of remedial response actions. Subsequently, Paragon monitored the installation of recovery wells and monitoring wells, performed borings, bedrock mapping and indoor air testing during 1996 through 1997. In addition, Paragon installed a product recovery/groundwater treatment system at the site in August 1996. According to the report, as a result of the elimination or reduction to trace levels of No.4 fuel oil identified in previously impacted monitoring wells, the system was shut down in April 2002. A Class A-2 RAO Statement for this release was submitted to the DEP on October 17, 2002 indicating that a Permanent Solution was achieved and a Condition of No Significant Risk exists. Given that remedial response actions were completed and a Class A-2 RAO was submitted to the DEP, it is concluded that this release does not pose a threat of impact to the subject site, and is not considered to be an REC with respect to the subject site.

**SUBSURFACE  
INVESTIGATION  
BY McPHAIL**

A subsurface investigation consisting of three (3) soil borings was conducted at the site on April 2, 2009 by Carr-Dee Corp. of Medford, Massachusetts under contract to McPhail Associates, Inc. as part of a preliminary geotechnical subsurface investigation. Logs of the soil borings are contained in **Appendix F** and approximate locations of the explorations are as indicated on the enclosed Subsurface Exploration Plan, **Figure 2** which is based upon a plan entitled "ALTA/ACSM Land Title Survey, 1501 Commonwealth Avenue, Boston, Mass." prepared by Feldman Professional Land Surveyors and dated December 2008.

The subsurface explorations were monitored by a representative of McPhail Associates, Inc. who performed field layout, prepared field logs, obtained and visually classified soil samples, monitored groundwater conditions in the completed explorations and the groundwater observation wells installed at the site, made minor adjustments to the exploration locations and determined the required exploration depths based upon the actual subsurface conditions encountered.



Geotechnical Engineers

Field locations of the subsurface explorations were determined by taping from existing site features identified on the above referenced survey plan. The existing ground surface elevation at each boring location was determined by a level survey performed by McPhail Associates, Inc. utilizing vertical control provided on the referenced survey plan.

The soil borings completed within the paved parking area (borings B-2 and B-3) were performed using a truck-mounted drill rig and were advanced utilizing 2-1/4-inch diameter hollow stem augers. Boring B-1, completed within the landscaped area of the site along Commonwealth Avenue was completed with portable drilling equipment. Standard 1-3/8-inch I.D. split-spoon samples and standard penetration tests were generally obtained continuously with depth in accordance with the standard procedures described in ASTM D1586.

Boring B-3 was finished as a groundwater observation well to permit monitoring of groundwater levels at the site.

## **SUBSURFACE CONDITIONS**

Detailed descriptions of the subsurface conditions encountered within each of the boreholes are presented on the boring logs contained in **Appendix F**. Following is a discussion of the generalized subsurface conditions across the site which are inferred primarily from the recent explorations, and also from our knowledge of local site geology, foundation design and construction experience in the Brighton area of Boston.

The explorations indicate that the site is covered by surface treatments consisting of either a 6-inch thick layer of topsoil or a 2-inch thickness of asphalt pavement. Beneath the surface treatments, the project site is blanketed by a loose to dense, brown fill material that generally consists of a silty sand and gravel containing trace amounts of brick, concrete, ash and cinders. The fill varied in thickness from 2 feet at the west end of the site (boring B-2) up to 15 feet at the east end of the site (boring B-3).



Geotechnical Engineers

Underlying the fill, the explorations encountered a natural deposit of glacial till at depths of 2 feet and 15 feet below ground surface in borings B-2 and B-3, respectively. The glacial till consisted of a very dense, light brown, silty sand and gravel with some cobbles. Beneath the glacial till in borings B-2 and B-3, and directly beneath the fill in boring B-1, the explorations encountered refusal on what is believed to be the underlying bedrock. Refusal was encountered at depths of 8.3 feet, 8 feet, and 18.5 feet, corresponding to Elevation +128.5, Elevation +119.0, and Elevation +106.0, in borings B-1, B-2, and B-3, respectively.

The stabilized groundwater level within the observation well installed in completed borehole B-3 was observed at 14 feet below the existing ground surface, corresponding to Elevation +110.5. It is anticipated that future groundwater levels across the site may vary from those reported herein due to factors such as normal seasonal changes, periods of heavy precipitation, and alterations of existing drainage patterns. A Groundwater Monitoring Report for the observation well installed in boring B-3 is presented in **Appendix F**.

#### **SOIL SCREENING RESULTS**

Soil samples obtained from the borings were screened for the presence of Total Volatile Organic Compounds (TVOC). The TVOC screening results are summarized in **Table 1**.

The headspace screening was performed in accordance with DEP's "Jar Headspace Analytical Screening Procedure", Attachment II to the Interim Remediation Waste Management Policy for Petroleum Contaminated Soils, #WSC-94-400. The screening was performed with MiniRAE 3000 Photoionization Detector calibrated to benzene equivalent VOCs.

A total of 11 soil samples were screened for the presence of TVOC. In summary, TVOC results encountered within the soil samples obtained from the borings were all 0 parts per million (ppm), or equivalent to ambient air background levels. Further, these samples did not exhibit the



Geotechnical Engineers

presence of visual or olfactory evidence of OHM. In the absence of visual or olfactory indications of the presence of OHM, TVOC results below 10 ppm are not considered likely to indicate the presence of a release of OHM. Therefore, RECs were not identified in soil during the subsurface investigation.

**CONSTRUCTION  
CONSIDERATIONS**

Based on the proposed redevelopment of the subject site excess soil may be generated as a result of excavation for new foundations and utilities, and hence, off-site disposal of excess existing soil may be necessary. Chemical analysis of these soils would be required for legal off-site disposal. Off-site re-use and disposal of soils is governed by the Massachusetts Contingency Plan (MCP) and DEP Soil Management Policies. In general, soils exhibiting contaminant concentrations above the RCS-1 reportable levels contained in the MCP are considered Regulated for off-site disposal and require the use of either a Bill of Lading, Material Shipping Record or Uniform Hazardous Waste Manifest. However, while soils exhibiting contaminant concentrations below the RCS-1 levels are considered "Unregulated" for off-site reuse/disposal (i.e. do not require the use of a Bill of Lading or Material Shipping Record), they may not be re-used in areas where the existing contaminant concentration levels are appreciably lower in accordance with DEP's anti-degradation policy.

Off-site disposal of excavated urban fill soils is governed by the DEP Policy #WSC-94-400 entitled "Interim Remediation Waste Management Policy for Petroleum Contaminated Soils", dated April 21, 1994, DEP Policy #COMM-97-001 entitled "Reuse and Disposal of Contaminated Soils at Massachusetts Landfills", dated August 15, 1997 and applicable sections of the MCP.

Contaminants regulated by the MCP and the above referenced policies include total petroleum hydrocarbons, volatile organics, heavy metals,



Geotechnical Engineers

polynuclear aromatic hydrocarbons, pesticides, PCB's, pH, reactivity and flashpoint.

In addition, in consideration of the potential on-site reuse of fill material that was observed to contain ash and cinder, chemical analysis of the fill is recommended to assess the potential requirement for providing a 1-foot thickness of clean soil at finish grade in lawn and landscaped areas as a protective measure to future residents.

#### **DATA GAPS**

In accordance with ASTM E 1527-05, the Phase I portion of this report shall identify and comment on any significant data gaps that affect the ability of the environmental professional to identify RECs. There were no significant data gaps identified during the completion of this assessment.

#### **SUMMARY AND CONCLUSIONS**

A Phase I Environmental Site Assessment has been completed in conformance with the ASTM E 1527-05 standard for the property located at 1501 Commonwealth Avenue in Brighton section of Boston, Massachusetts. The purpose of this report was to document the possible release of oil and/or hazardous materials, as defined in Massachusetts General Laws Chapter 21E and the Massachusetts Contingency Plan, 310 CMR 40.0000 and to identify the potential presence of Recognized Environmental Conditions as defined by the ASTM 1527-05 standard.

Our assessment included a review of the site history relative to the possible presence of oil and/or hazardous materials, a visual reconnaissance of the subject site and the surrounding areas, a review of readily available city, state and federal records including a DEP file review, and a review of a database search completed by EDR Sanborn, Inc. of Milford, Connecticut. In addition, a subsurface investigation performed primarily for geotechnical purposes included reviewing and screening soil samples obtained from the borings for Total Volatile Organic Compounds (TVOCs).



Geotechnical Engineers

Fronting onto Commonwealth Avenue to the east, the subject site is bounded by the Brighton Marine Health Center to the north, Kindred Hospital to the south, and wooded land to the west. The subject site occupies a plan area of approximately 31,715 square feet and is currently occupied by a vacant 2-story, concrete and masonry building which was formerly utilized as a nursing home.

The results of our review of historical records indicate that prior to development in the early 1960s, the subject site was undeveloped land. Since that time, it is understood that the subject site building had been utilized as a rest home until 2005. Further, it is understood that since 2005 the subject site building has remained vacant. However, it is understood that the City of Boston Department of Neighborhood Development, allows occasional use of the subject site building by the Boston Fire Department. The property located to the north of the subject site has been occupied by a health center and associated medical officer quarters since at least 1950. The property located to the west of the subject site has remained undeveloped. The property located to the south of the subject site has been occupied by an office building since at least 1989. The results of our review of historical records indicated that there are no threats of impact to the subject site, and no RECs were identified with respect to historical usage of the subject site and surrounding properties.

Our observations of readily observable areas of the subject site and surrounding properties did not disclose evidence of a release of oil or hazardous materials, or the presence of RECs at the time of our site visit. However, we recommend that the locked wooden box labeled "Infectious Waste" and "Biohazard" observed within a storage room and containers observed within the elevator room and storage room in the eastern portion of the basement and their contents be properly disposed prior to the demolition of the existing building.



Geotechnical Engineers

A review of readily available records on the City of Boston online databases and municipal offices did not indicate the presence of RECs with respect to the subject site.

Based on our review of the DEP's on-line database of MCP sites, the subject site is not a DEP listed MCP site, nor was information identified in the available databases searched by EDR that indicated the presence of an REC.

Four (4) listed MCP release sites located within 0.5 miles of the subject site were evaluated to determine whether they could potentially pose a threat to the subject site. Files for these four (4) sites were examined at the DEP's Northeast Regional office for information relative to their potential to impact the subject property. Based on our review of readily available information at the DEP's Northeast Regional office and/or DEP's on-line MCP site database, the four (4) release sites are not considered likely to pose a threat to the subject property based on the location of the releases, the response actions completed, and/or given that a Class A was filed for each release, indicating that a Permanent Solution was achieved and a Condition of No Significant Risk exists. Accordingly, the four (4) release sites are not considered RECs with respect to the subject site.

The subsurface investigation performed at the subject site was based, in part, on gathering information relating to the proposed development of the subject site as part of a preliminary geotechnical subsurface investigation. This investigation included the performance of three (3) borings, one (1) of which was completed as groundwater monitoring well. Topsoil and asphalt surface treatments at the subject site were underlain by granular fill material containing trace amounts of brick, glass, ash and cinders that varied from 2 to 15 feet in thickness. Underlying the fill, the explorations encountered a natural deposit of very dense glacial till and/or bedrock. Where encountered, the glacial till varied from 3.5 to 6 feet in thickness. The stabilized groundwater level within the observation well installed in





Geotechnical Engineers

completed borehole B-3 was observed at 14 feet below the existing ground surface.

A total of 11 soil samples obtained from the borings were screened for the presence of Total Volatile Organic Compounds (TVOCs). The TVOC results encountered within the soil samples obtained from the borings were all 0 parts per million (ppm), or equivalent to ambient air background levels. Further, these samples did not exhibit the presence of visual or olfactory evidence of OHM. In the absence of visual or olfactory indications of the presence of OHM, TVOC results below 10 ppm are not considered likely to indicate the presence of a release of OHM. Therefore, RECs were not identified in soil during the subsurface investigation.

The proposed preliminary plans for development of the subject site is understood to include demolition of the existing structure and construction of a 4-story residential building with two levels of at-grade parking that will closely approximate the existing grades along Commonwealth Avenue. Therefore, pursuant to the Massachusetts Oil and Hazardous Materials Release Prevention and Response Act (MGL Chapter 21E) and pursuant to the Massachusetts Contingency Plan (310 CMR 40.00), if off-site disposal of excess excavated soil from future development of the subject site becomes necessary, chemical analysis of the excess soil will be required in order to conform with the regulations and policies of the Department of Environmental Protection (DEP).

In addition, in consideration of the potential on-site reuse of fill material that was observed to contain ash and cinder, chemical analysis of the fill is recommended to assess the potential requirement for providing a 1-foot thickness of clean soil at finish grade in lawn and landscaped areas as a protective measure to future residents.

We have performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E 1527-05 of 1501 Commonwealth Avenue in Brighton, Massachusetts, the *property*.



Geotechnical Engineers

Any exceptions to, or deletions from, this practice are described in Section Data Gaps of this report. This assessment has identified no *recognized environmental conditions* in connection with *property*.

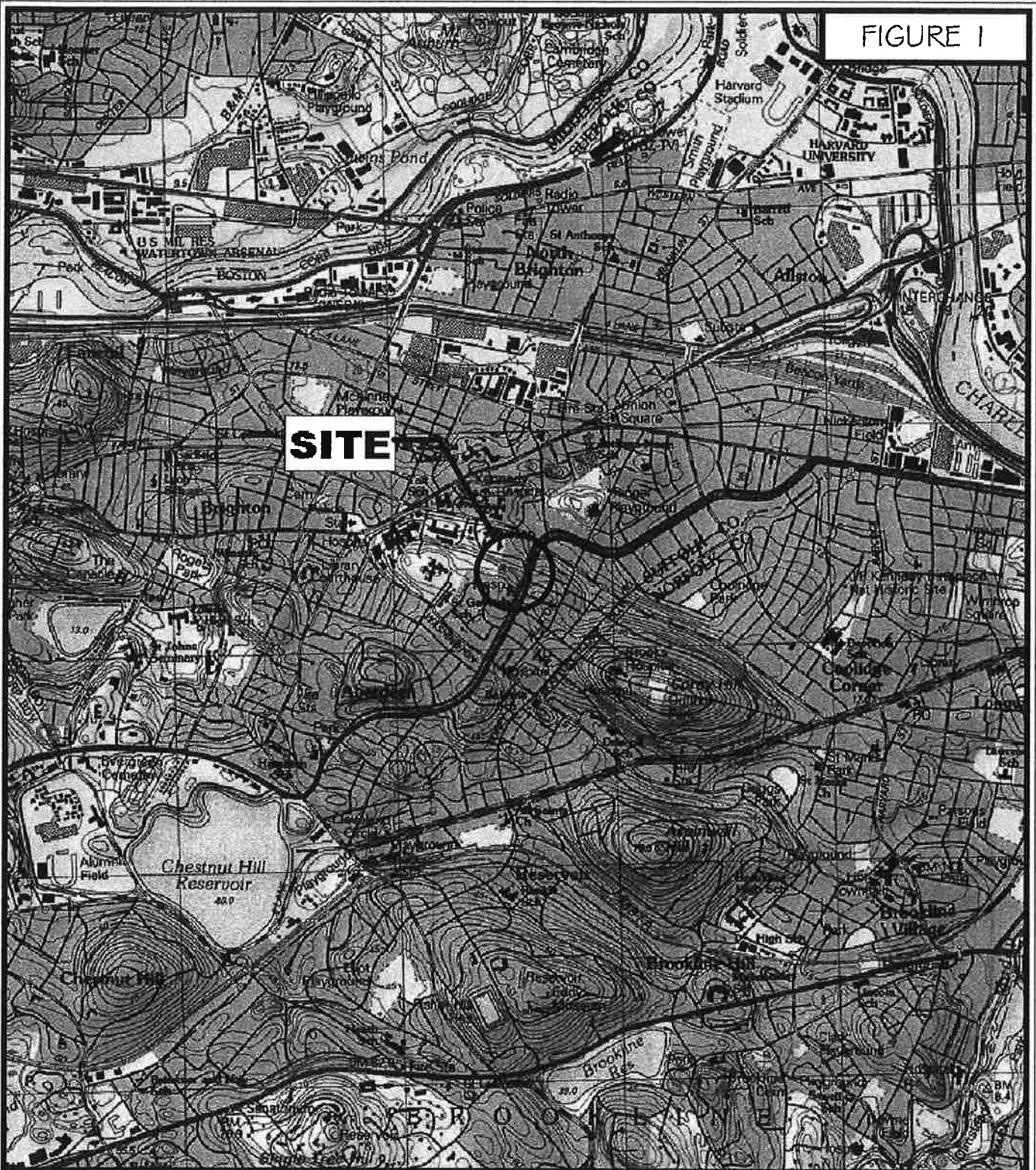
**ENVIRONMENTAL  
PROFESSIONAL  
STATEMENT**

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312. Further, I have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in CFR Part 312.

A handwritten signature in black ink, appearing to read "Ambrose J. Donovan", written over a horizontal line.

Ambrose J. Donovan

FIGURE 1



Geotechnical Engineers

2269 Massachusetts Avenue  
Cambridge, MA 02140  
617/868-1420  
617/868-1423 (Fax)



SCALE 1:25,000

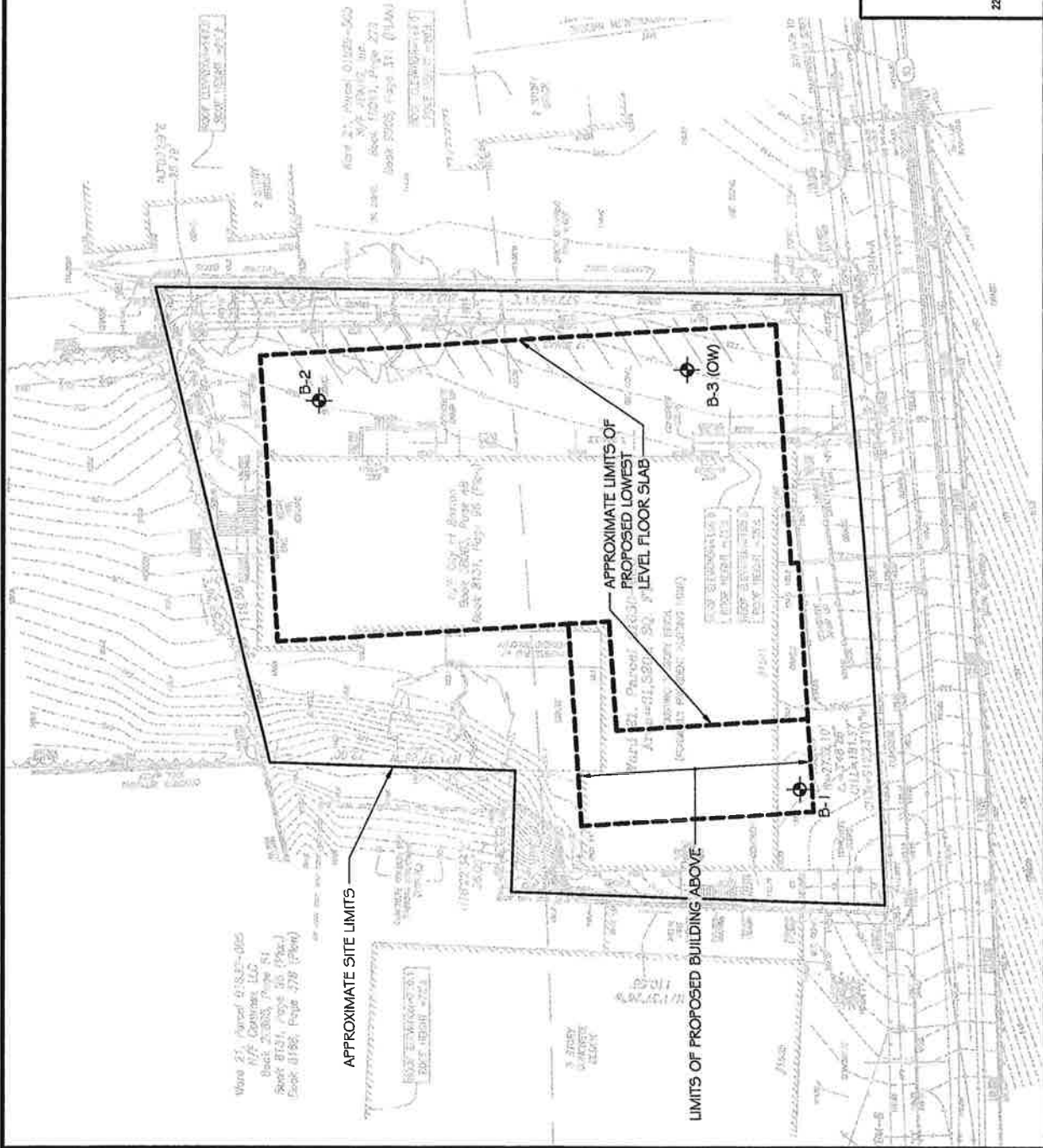
# PROJECT LOCATION PLAN

## 1501 COMMONWEALTH AVENUE

BRIGHTON

MASSACHUSETTS

FIGURE 2




LEGEND

- ⊕ -- APPROXIMATE LOCATION OF BORINGS PERFORMED BY CARR-DEE CORP. ON APRIL 2, 2009 FOR McPHAIL ASSOCIATES, INC.
- (OW) -- DENOTES OBSERVATIONS WELL INSTALLED IN COMPLETED BOREHOLE.

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED "ALTACASM LAND TITLE SURVEY" DATED DECEMBER 16, 2008 BY FELDMAN PROFESSIONAL LAND SURVEYORS.



 <p><b>McPHAIL ASSOCIATES, INC.</b> Geotechnical Engineers 2269 Massachusetts Avenue Boston, MA 02116 817/888-1403 817/888-1403 (Fax)</p>	<p>BRIGHTON 1501 COMMONWEALTH AVENUE MASSACHUSETTS</p>
	<p>SUBSURFACE EXPLORATION PLAN FOR HART DEVELOPMENT ASSOCIATES BY McPHAIL ASSOCIATES, INC. CONSULTING GEOTECHNICAL ENGINEERS</p>
<p>Date: APRIL 2009    Dwn: J.E.P.    Chkd: J.G.L.    Scale: 1" = 30'</p>	
<p>Project No: 4903</p>	

**TABLE 1**

**CHARING CROSS; 1501 COMMONWEALTH AVENUE**

**Project No: 4903  
Headspace Readings in Sample Jars**

<b>EXPLORATION</b>	<b>SAMPLE</b>	<b>DEPTH</b>	<b>SAMPLE</b>	<b>PID</b>	<b>VISUAL/OLFACTORY</b>
<b>NO.</b>	<b>NO.</b>	<b>FT.</b>	<b>TYPE</b>	<b>READING (ppm)</b>	<b>PETROLEUM EVIDENCE</b>
<i>BACKGROUND</i>					
B-1	S-1	1-3'	Fill	0.0	None
	S-2	5-7	Fill	0.0	None
	S-3	10-10'-11"	Glacial Till	0.0	None
	S-4	15'-16'-2"	Glacial Till	0.0	None
<i>BACKGROUND</i>					
B-2	S-1	0-2	Fill	0.0	None
	S-2	5-7'	Fill	0.0	None
	S-3	10-12'	Glacial Till	0.0	None
	S-4	12'-12'-1"	Glacial Till	0.0	None
<i>BACKGROUND</i>					
B-3	S-1	1-3'	Fill	0.0	None
	S-2	5'-6'-10"	Glacial Till	0.0	None
	S-3	10'-10'-8"	Glacial Till	0.0	None

Equipment: hnu Model DL 102 or  
MiniRAE 3000 Photoionization  
Detector with 10.2 eV or 10.6 eV Probe

PPM = Parts Per Million

**McPhail Associates, Inc.**







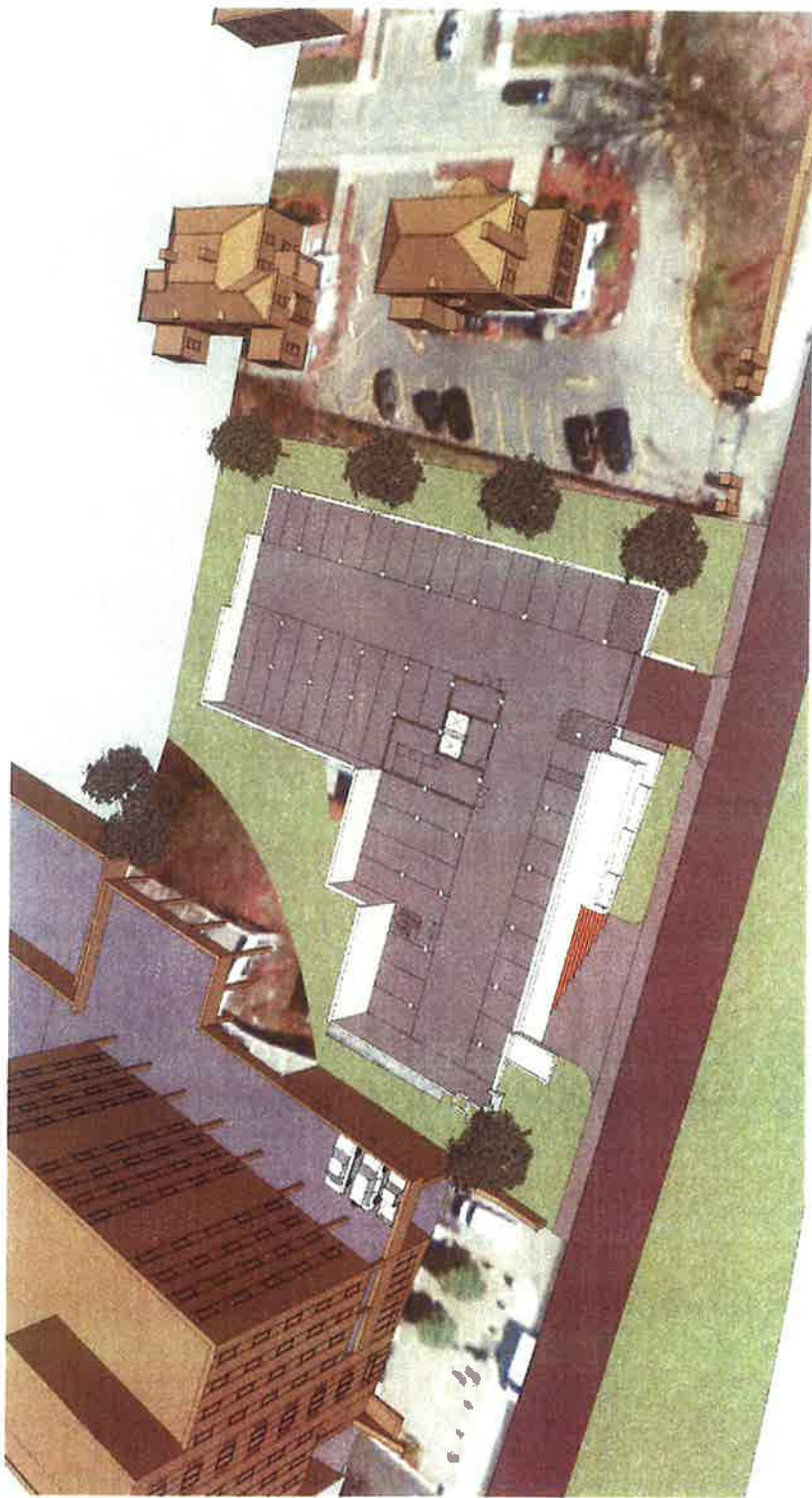


The Brighton Partnership for Community Reinvestment, L.L.C.

*a joint venture of*  
 Diamond Development Associates  
 305 Newbury Street, Boston, MA 02116  
 617-368-8650 (toll) 617-368-5662 (fax)  
 mdiamond@diamondbrincor.com

1501 Commonwealth Avenue  
**Charring Cross**





The Brighton Partnership for Community Reinvestment, LLC

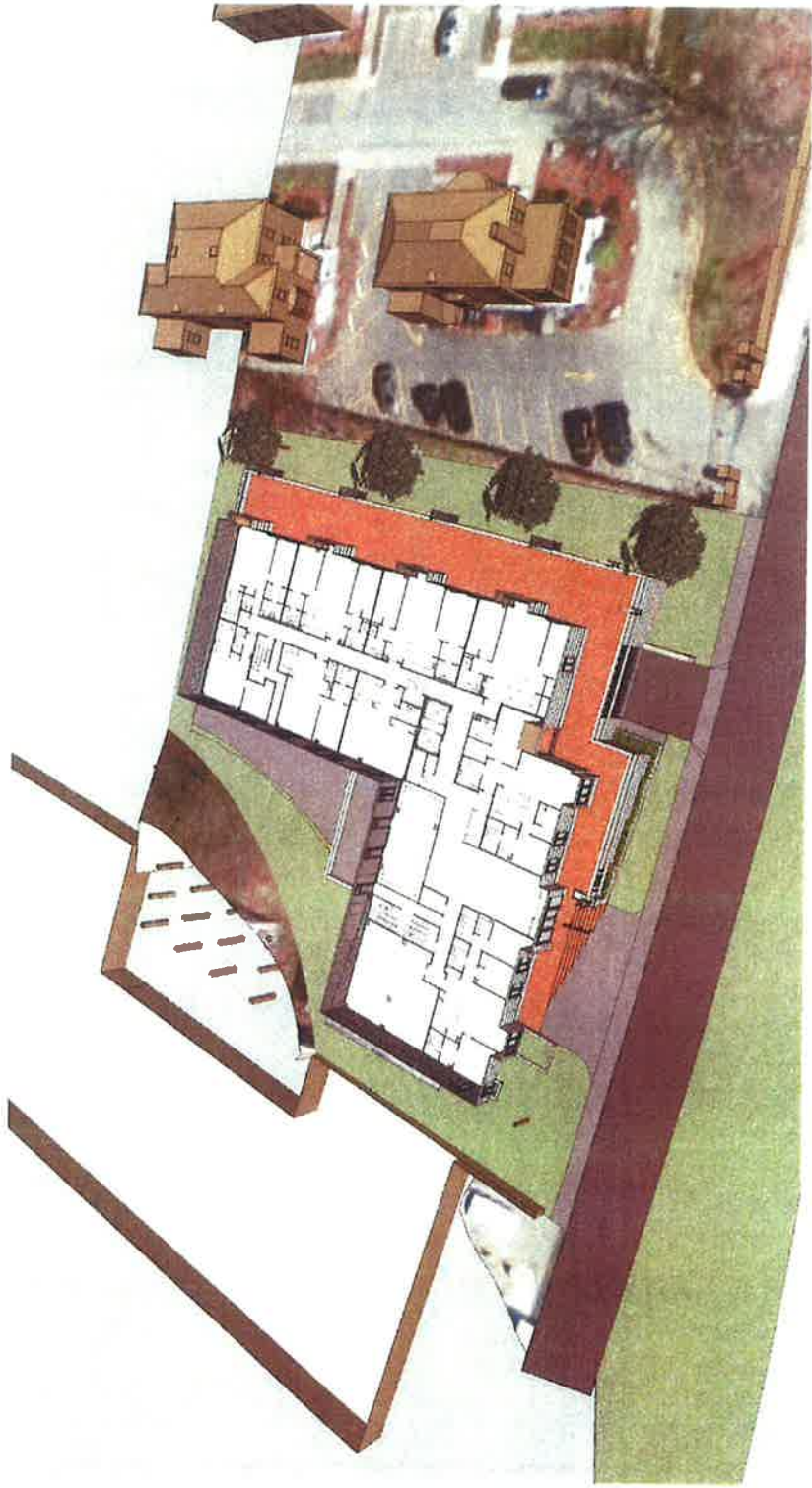
a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates

205 Newbury Street • Boston, Massachusetts 02116

617-369-5650 (tel) • 617-369-5652 (fax)

mdiamond@diamondsinacori.com

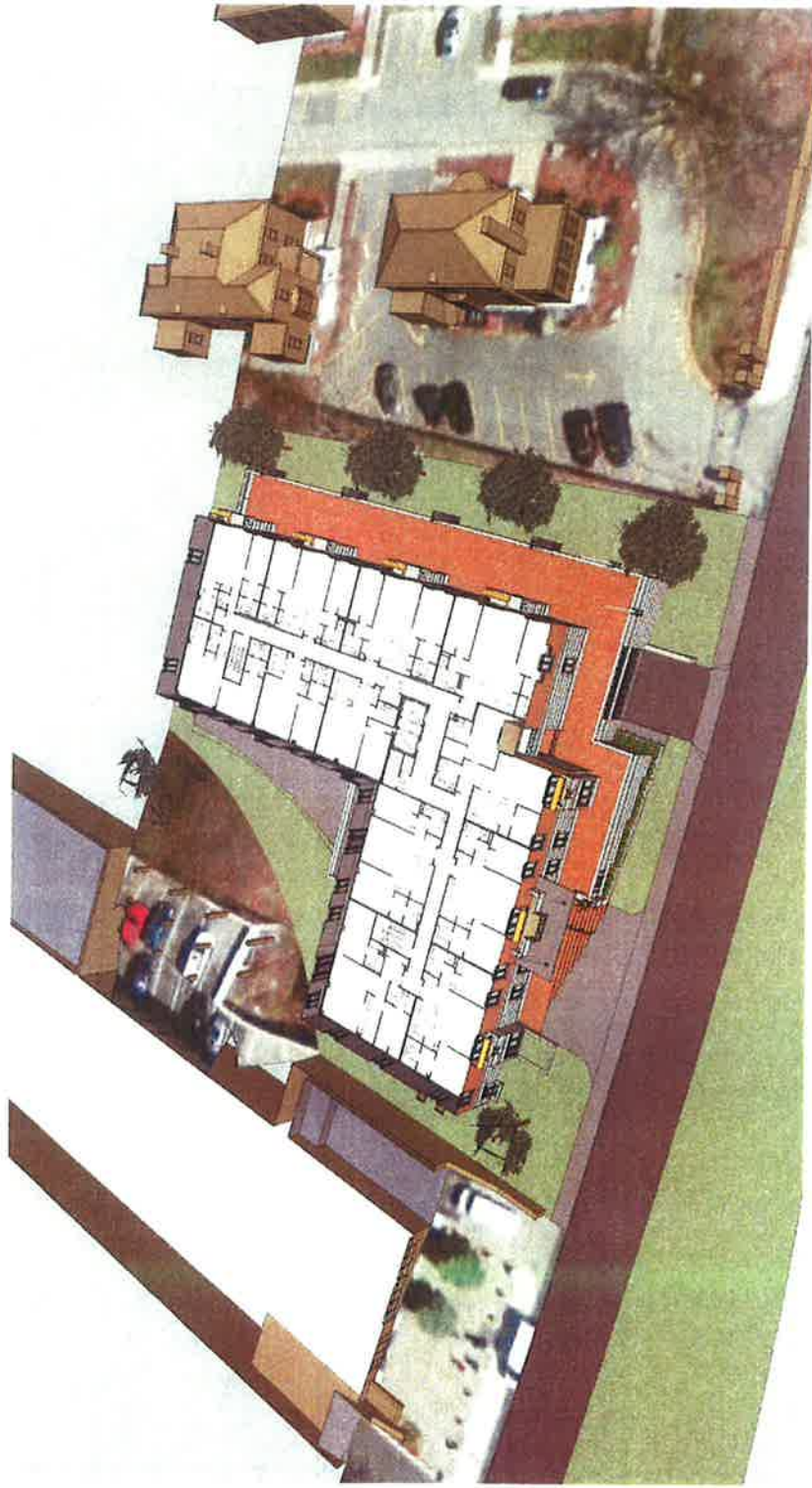


The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
 205 Newbury Street • Boston, Massachusetts 02116  
 617-369-5650 (tel) • 617-369-5652 (fax)  
 mdiamond@diamondsinacori.com

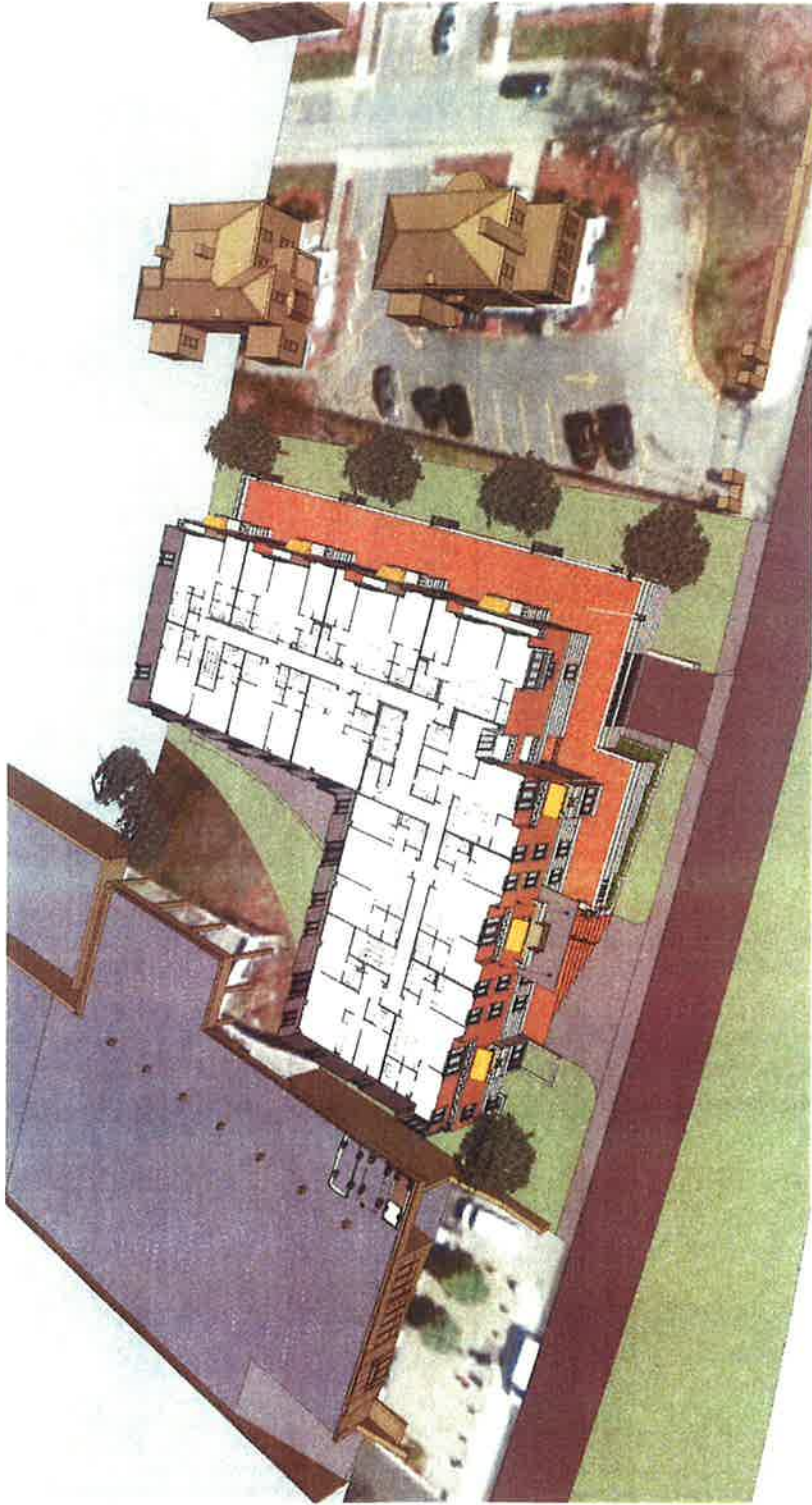




The Brighton Partnership for Community Reinvestment, L.L.C.

a Joint Venture of

**Diamond Sinacori, LLC & Hart Development Associates**  
 205 Newbury Street - Boston, Massachusetts 02116  
 617-369-5650 (tel) • 617-369-5652 (fax)  
 mdiamond@diamondsinacori.com

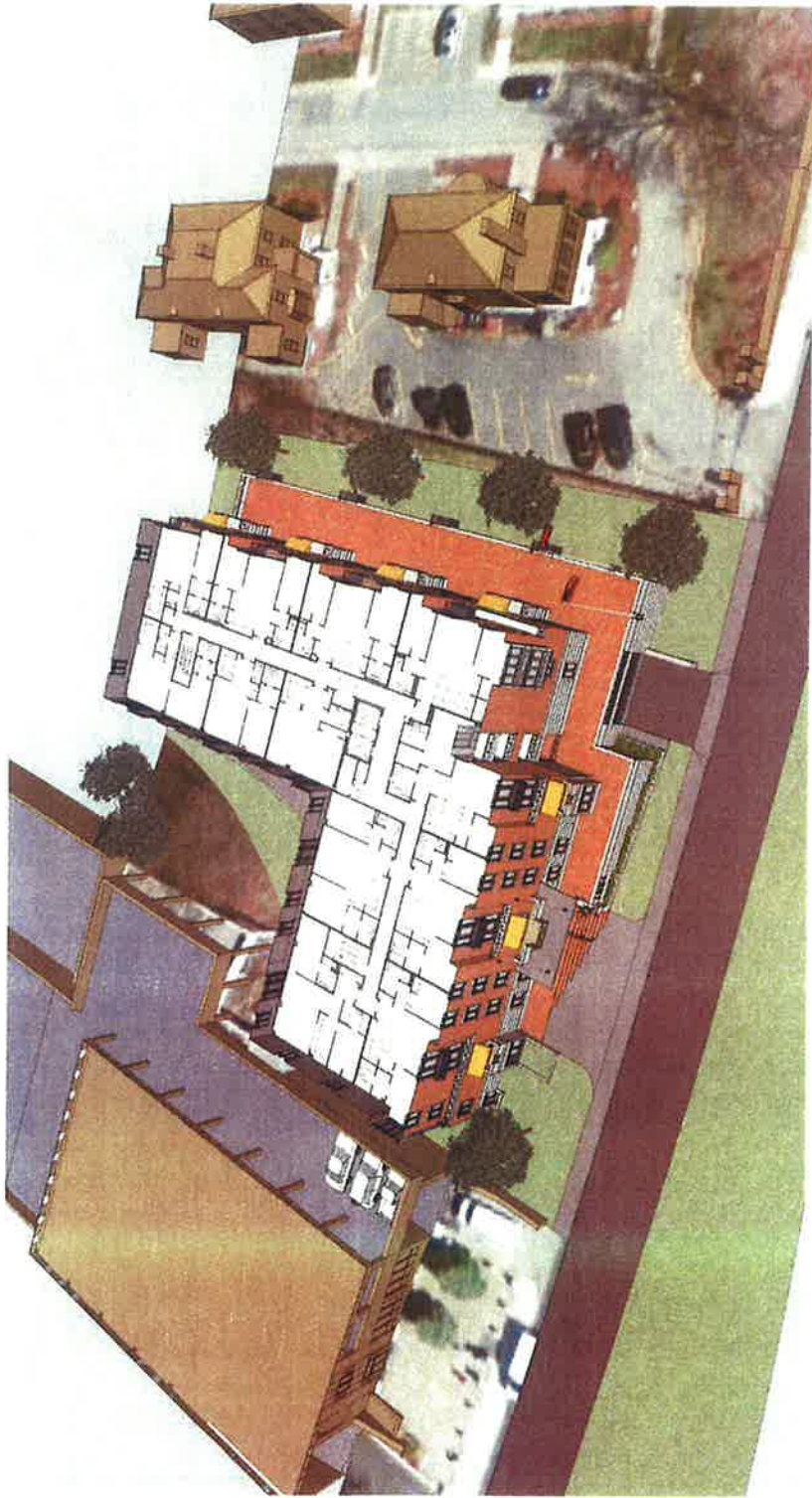


The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
 205 Newbury Street · Boston, Massachusetts 02116  
 617-369-5650 (tel) · 617-369-5652 (fax)  
 mdiamond@diamondsinacori.com





The Brighton Partnership for Community Reinvestment, L.L.C.

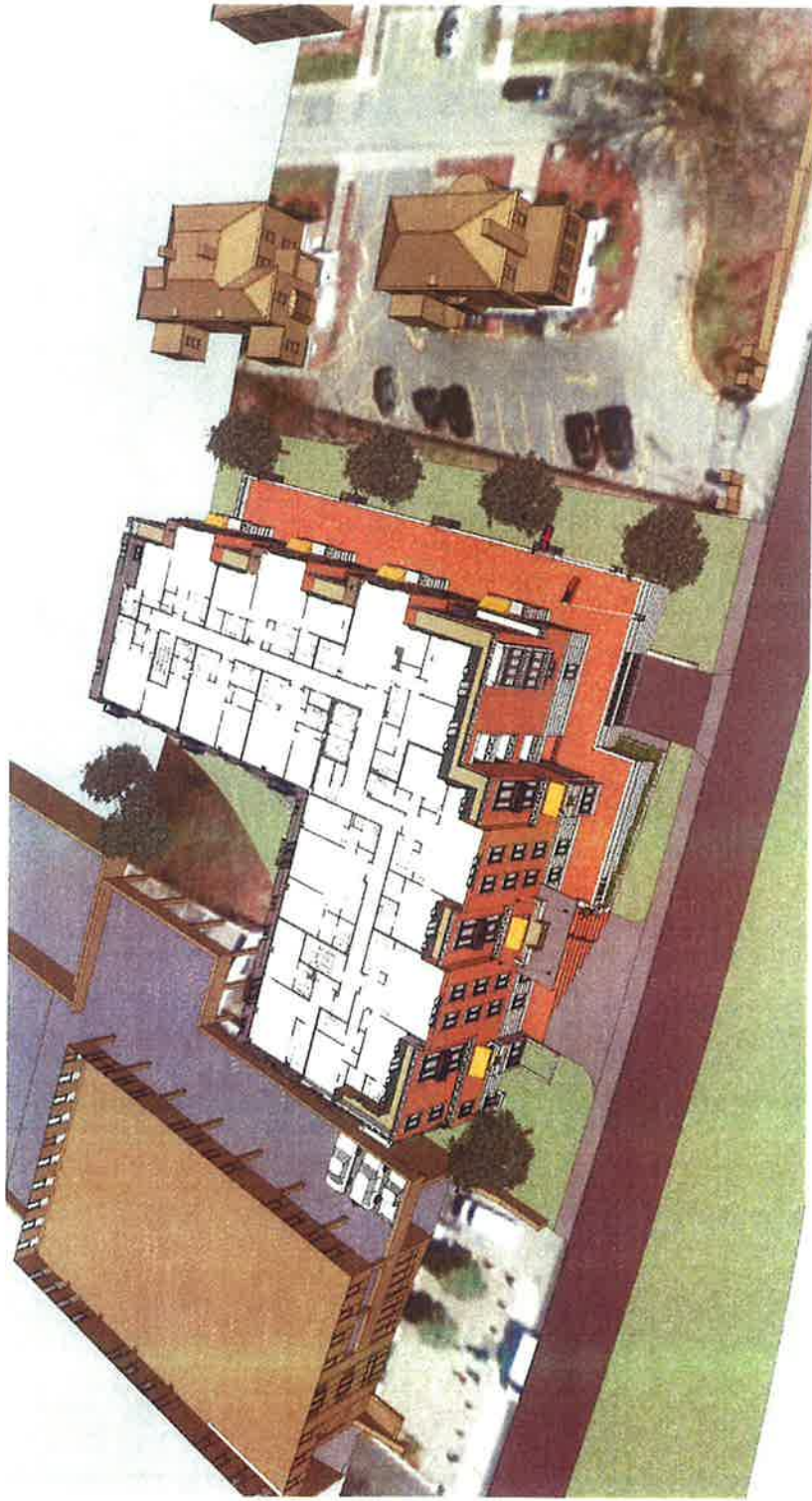
a Joint Venture of

Diamond Sinacori, L.L.C. & Hart Development Associates

205 Newbury Street - Boston, Massachusetts 02116

617-369-5650 (tel) • 617-369-5652 (fax)

mdiamond@diamondsinacori.com

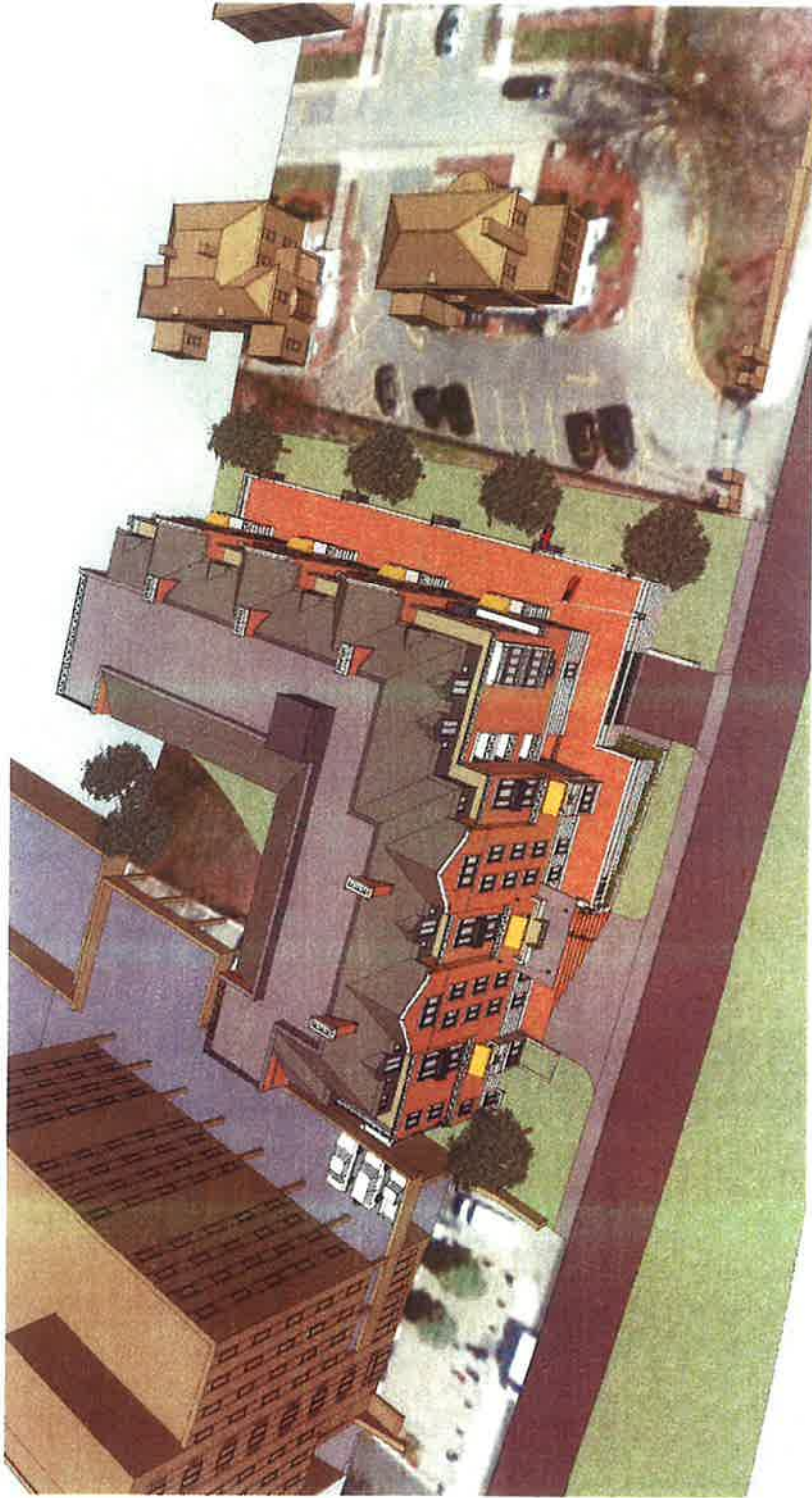


The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
 205 Newbury Street • Boston, Massachusetts 02116  
 617-369-5650 (tel) • 617-369-5652 (fax)  
 mdiamond@diamondsinacori.com





The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
205 Newbury Street • Boston, Massachusetts 02116  
617-369-5650 (tel) • 617-369-5652 (fax)  
mdiamond@diamondsinacori.com



The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
205 Newbury Street • Boston, Massachusetts 02116  
617-369-5650 (tel) • 617-369-5652 (fax)  
mdiamond@diamondsinacori.com





The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
205 Newbury Street · Boston, Massachusetts 02116  
617-369-5650 (tel) · 617-369-5652 (fax)  
mdiamond@diamondsinacori.com



The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
205 Newbury Street • Boston, Massachusetts 02116  
617-369-5650 (tel) • 617-369-5652 (fax)  
mdiamond@diamondsinacori.com





## Commonwealth Avenue Elevation

The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
205 Newbury Street - Boston, Massachusetts 02116  
617-369-5650 (tel) · 617-369-5652 (fax)  
mdiamond@diamondsinacori.com



The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
205 Newbury Street - Boston, Massachusetts 02116  
617-369-5650 (tel) - 617-369-5652 (fax)  
mdiamond@diamondsinacori.com

## Commonwealth Avenue Elevation





The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

**Diamond Sinacori, LLC & Hart Development Associates**  
 205 Newbury Street • Boston, Massachusetts 02116  
 617-369-5650 (tel) • 617-369-5652 (fax)  
 mrdiamond@diamondsinacori.com

# Commonwealth Avenue Elevation



The Brighton Partnership for Community Reinvestment, L.L.C.

a Joint Venture of

**Diamond Sinacori, L.L.C. & Hart Development Associates**  
205 Newbury Street · Boston, Massachusetts 02116  
617-369-5650 (tel) · 617-369-5652 (fax)  
mdiamond@diamondsinacori.com



The Brighton Partnership for Community Reinvestment, L.L.C.

*a Joint Venture of*

**Diamond Sinacori, L.L.C. & Hart Development Associates**  
205 Newbury Street · Boston, Massachusetts 02116  
617-369-5650 (tel) · 617-369-5652 (fax)  
mdiamond@diamondsinacori.com





Commonwealth Avenue Elevation

The Brighton Partnership for Community Reinvestment, LLC  
 a Joint Venture of

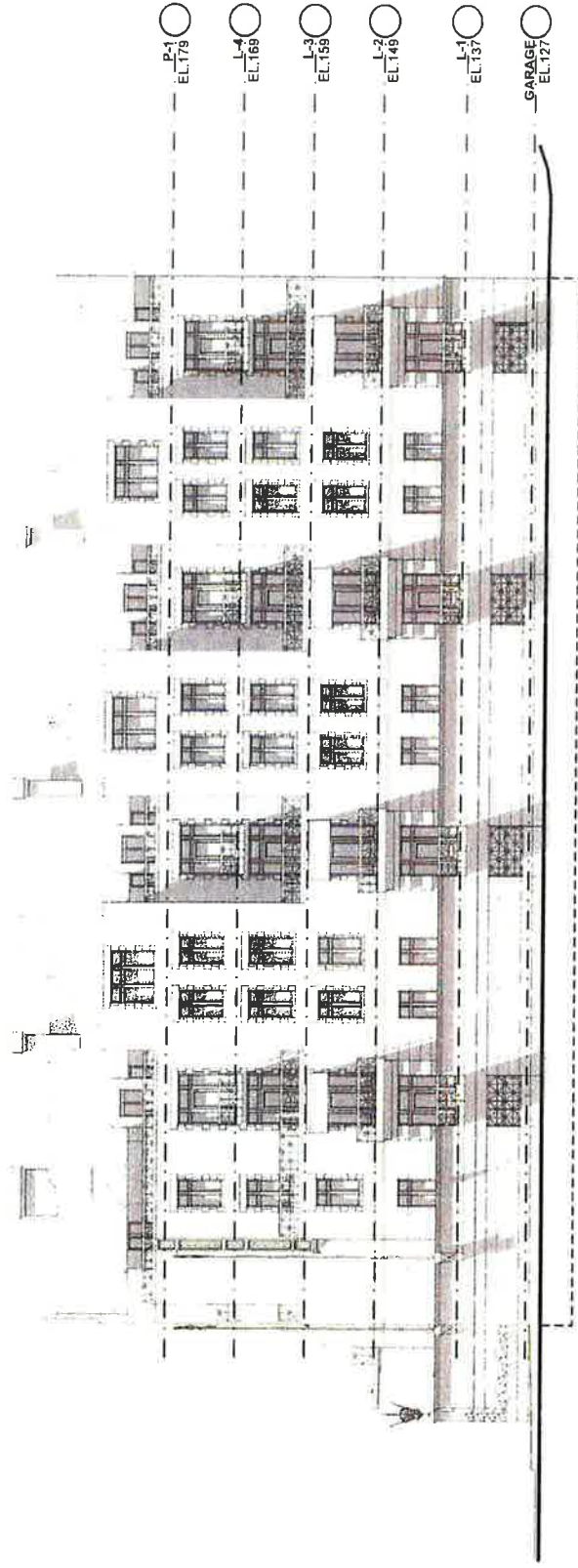
Diamond Sinacori, LLC & Hart Development Associates  
 205 Newbury Street · Boston, Massachusetts 02116  
 617-369-5650 (tel) · 617-369-5652 (fax)  
 mdiamond@diamondsinacori.com





**Commonwealth Avenue Elevation - Southeast**  
 scale: 1/8"=1'-0"

The Brighton Partnership for Community Reinvestment, LLC  
 a Joint Venture of  
 Diamond Sinacori, LLC & Hart Development Associates  
 205 Newbury Street · Boston, Massachusetts 02116  
 617-369-5650 (tel) · 617-369-5652 (fax)  
 mtdiamond@diamondsinacori.com



Northeast Elevation  
scale: 1/8"=1'-0"

The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
205 Newbury Street • Boston, Massachusetts 02116  
617-369-5650 (tel) • 617-369-5652 (fax)  
mdiamond@diamondsinacori.com



Charing Cross, a joint venture of  
 Diamond Sinacori, LLC  
 & Hart Development Associates

**CLIENT**  
 The Brighton Partnership  
 for Community  
 Reinvestment, LLC

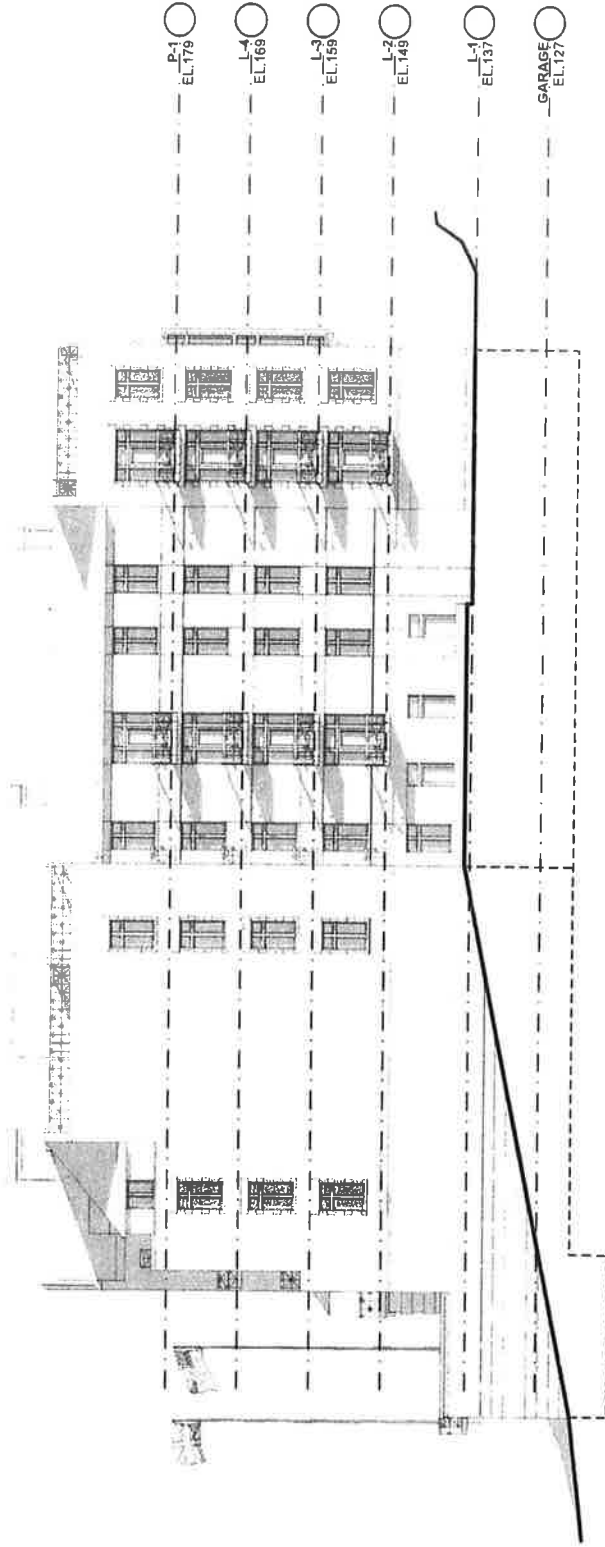
**PROJECT**  
 Charing Cross

**ISSUE**  
 10/15/10

**DRAWN BY**  
 SETP

**Elevation**

**A-03**



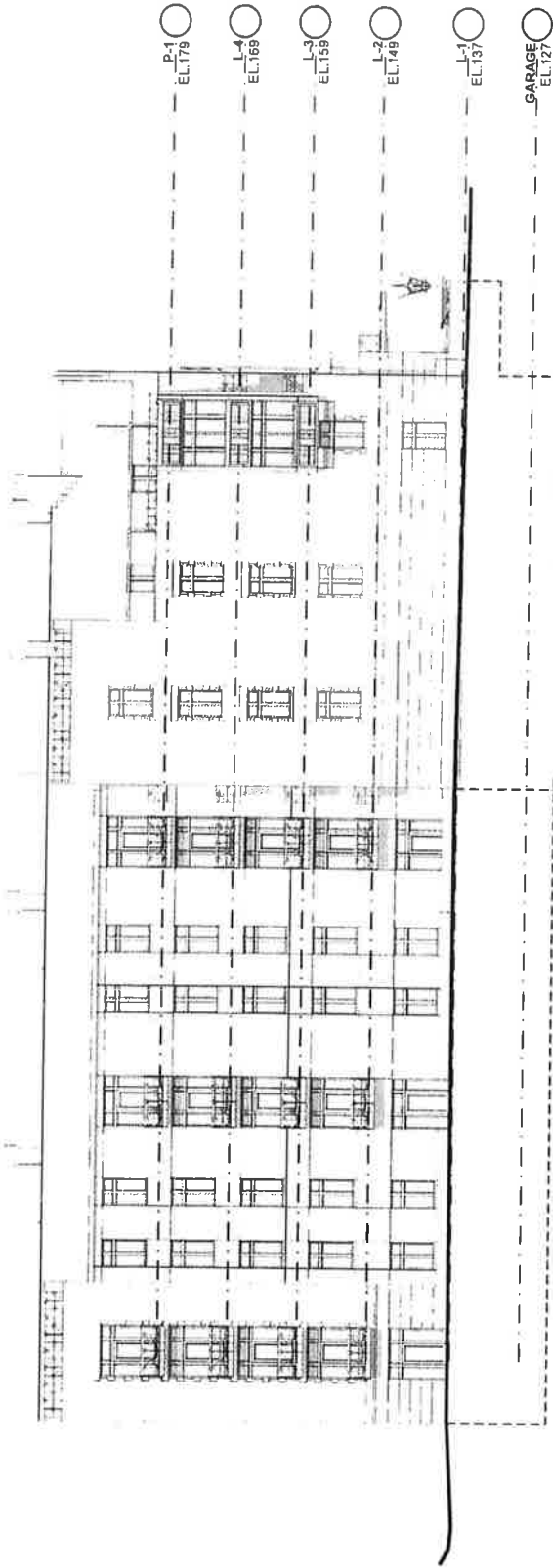
**Northwest Elevation**  
 scale: 1/8"=1'-0"

The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
 205 Newbury Street · Boston, Massachusetts 02116  
 617-369-5650 (tel) · 617-369-5652 (fax)  
 mdiamond@diamondsinacori.com

Southwest Elevation  
scale: 1/8"=1'-0"



The Brighton Partnership for Community Reinvestment, LLC

a Joint Venture of

Diamond Sinacori, LLC & Hart Development Associates  
205 Newbury Street · Boston, Massachusetts 02116  
617-369-5650 (tel) · 617-369-5652 (fax)  
mdiamond@diamondsinacori.com

ISSUE 10.15.10  
DRAWN BY SETP

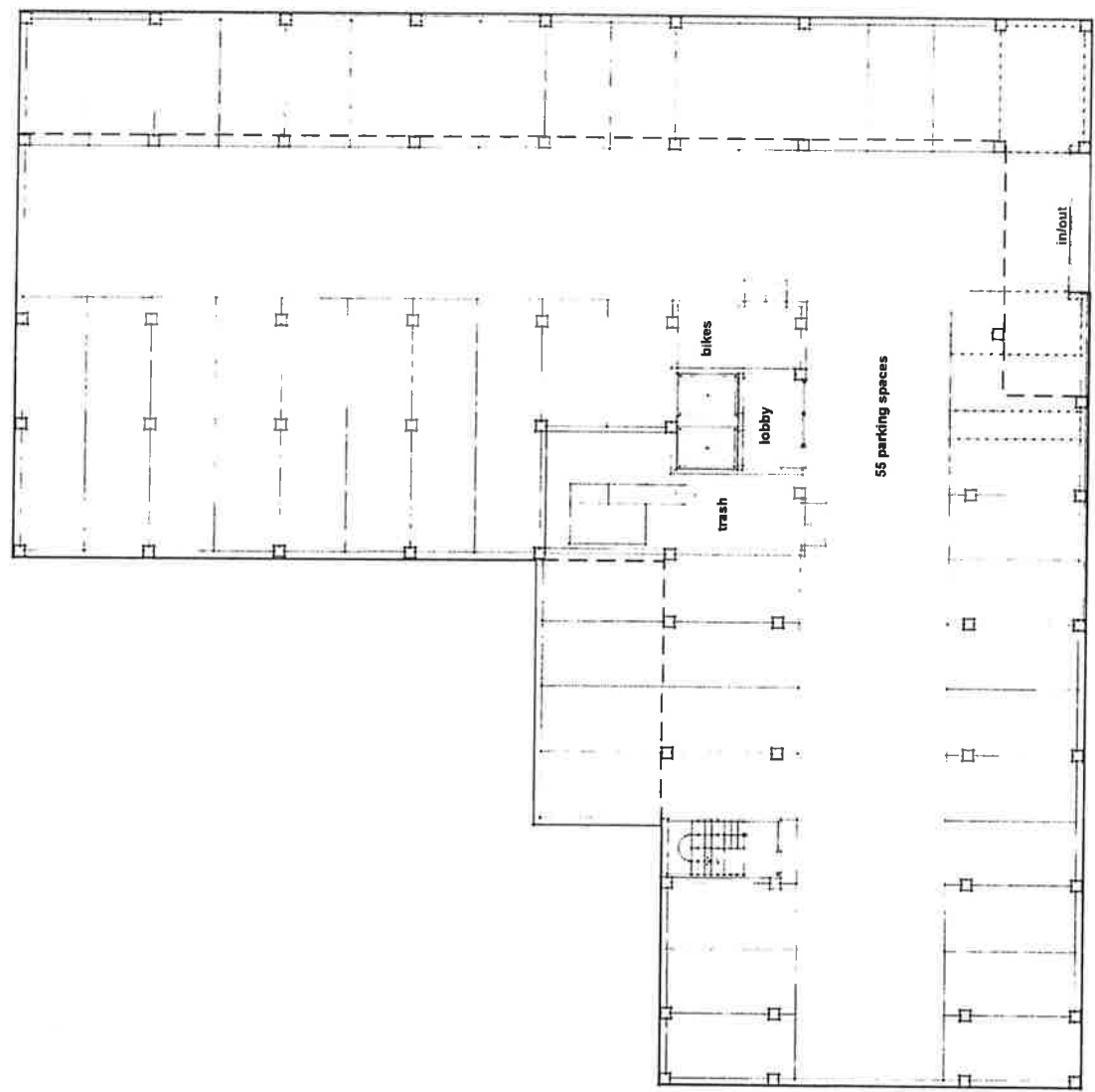
PROJECT Charing Cross  
PROJECT NO. 245170

CLIENT The Brighton Partnership  
for Community  
Reinvestment, LLC

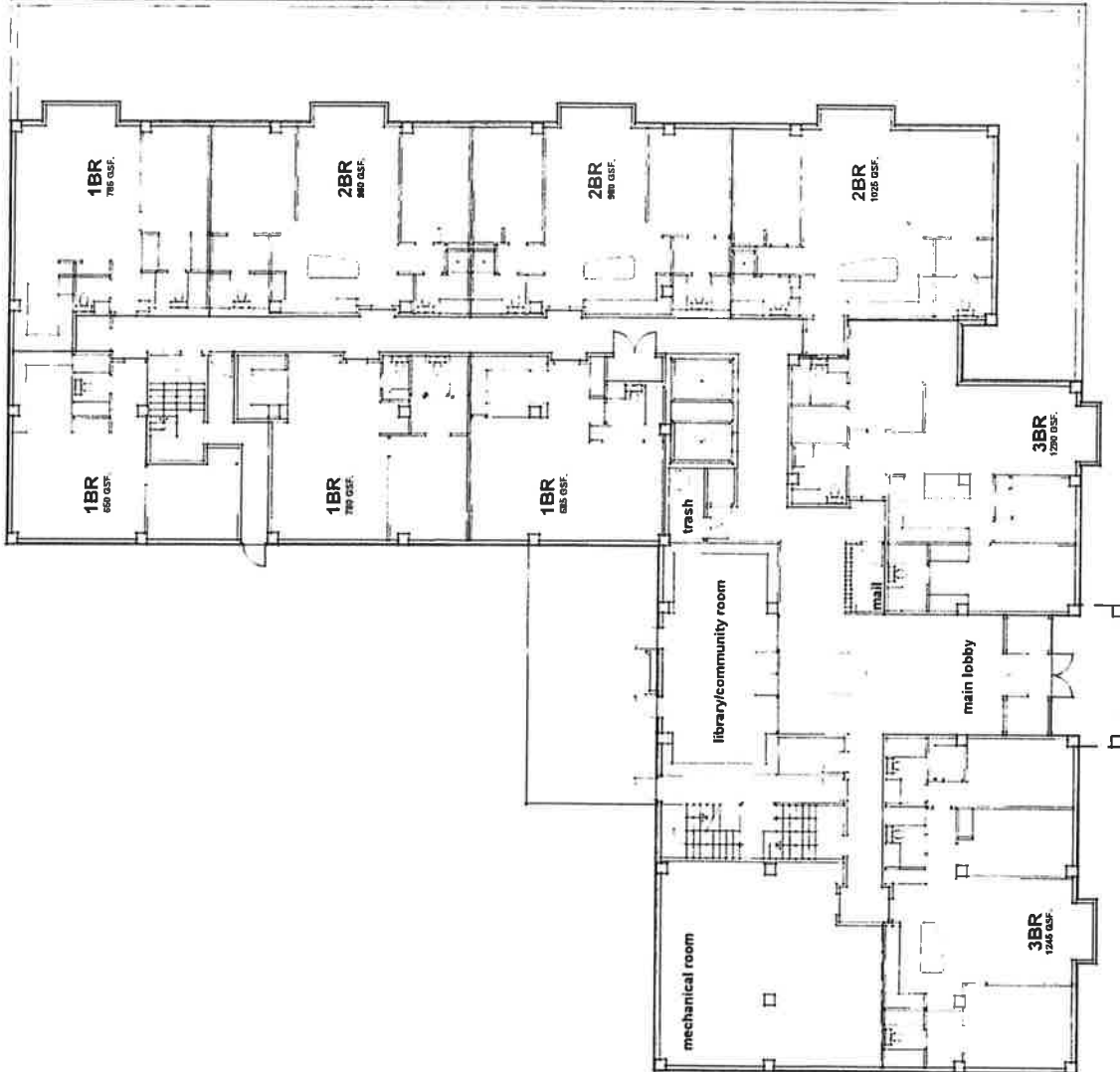
Charing Cross, a joint venture of  
Diamond Street, LLC  
& Hart Development Associates



# Charing Cross



**LEVEL 1:**  
4X1BR  
3X2BR  
2X3BR  
9 TOTAL UNITS



ISSUE 10.15.10

DRAWN BY SETP

PROJECT Charing Cross  
245.170

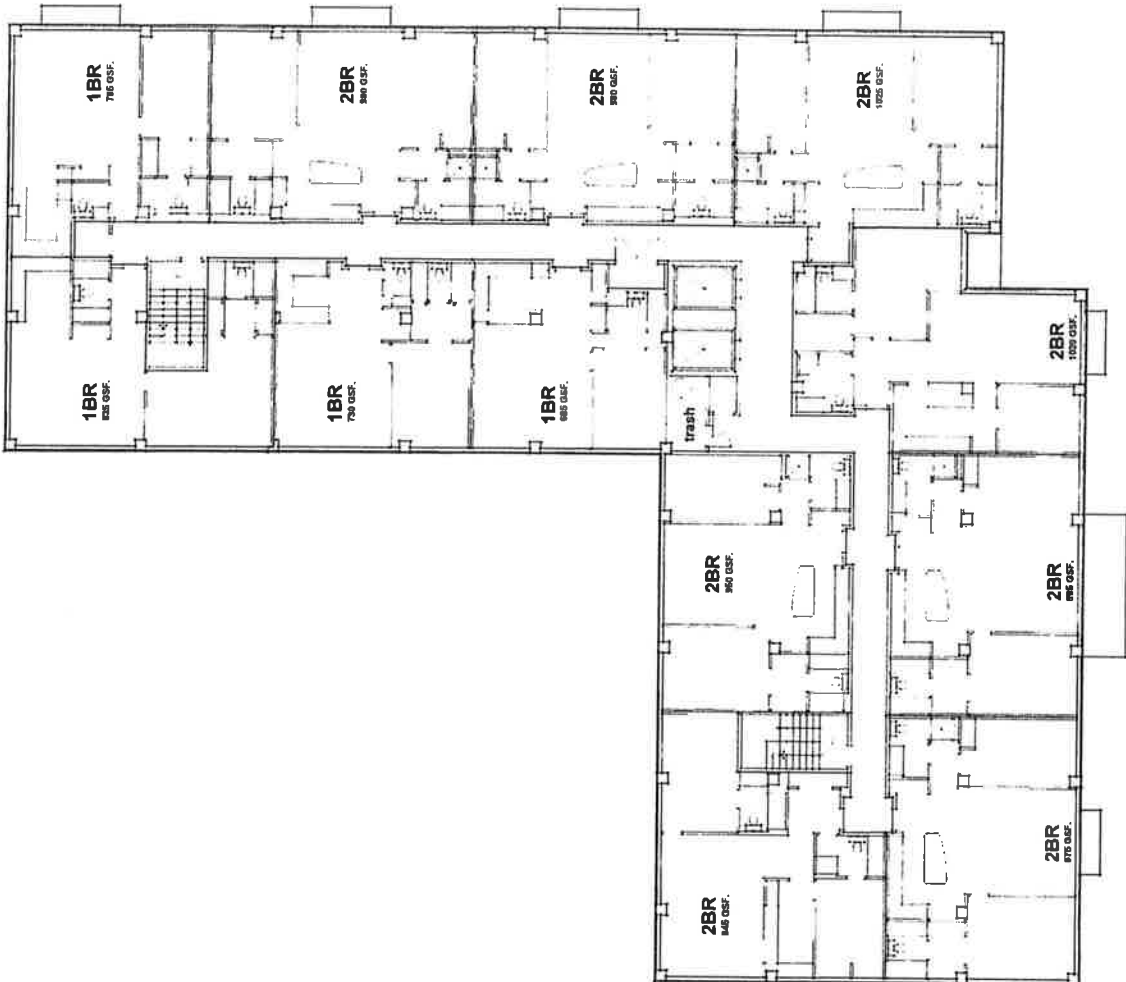
CLIENT The Brighton Partnership  
for Community  
Reinvestment, LLC

Charing Cross, a joint venture of  
Diamond Shaefer, LLC  
& Hart Development Associates



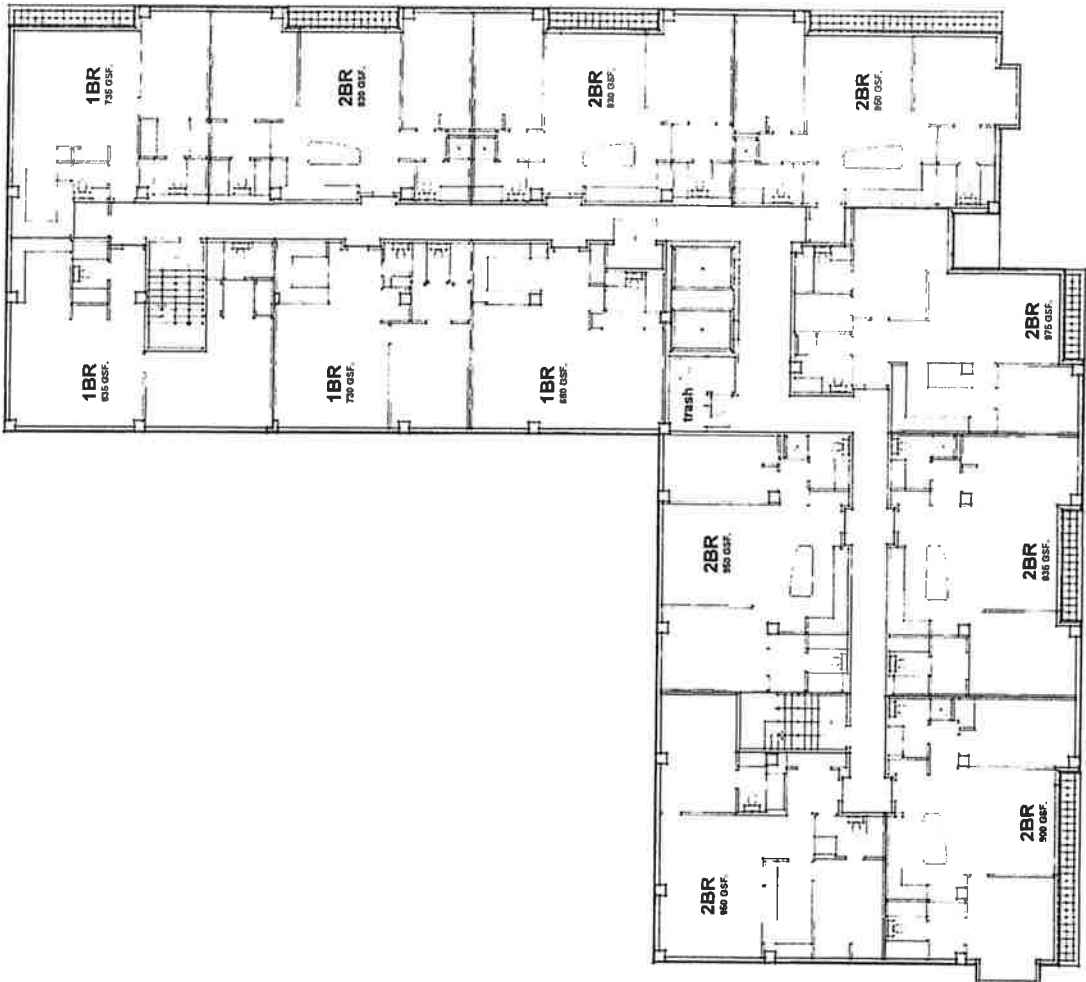
# Charing Cross

LEVEL 2:  
4X2BR  
9X2BR  
12 TOTAL UNITS



# Level 3-4

LEVEL 3-4:  
8X1BR  
15X2BR  
24 TOTAL UNITS



ISSUE  
10 15 10

DRAWN BY  
SEIT

PROJECT  
Charing Cross

PROJECT NO.  
245 170

CLIENT  
The Englon Partnership  
for Community  
Reinvestment, LLC

Charing Cross, a joint venture of  
Diamond Sincori, LLC  
& Hart Development Associates



# Charing Cross



# Level 5

ISSUE  
10.15.10  
SET/

DRAWN BY

PROJECT  
Charing Cross  
245.170

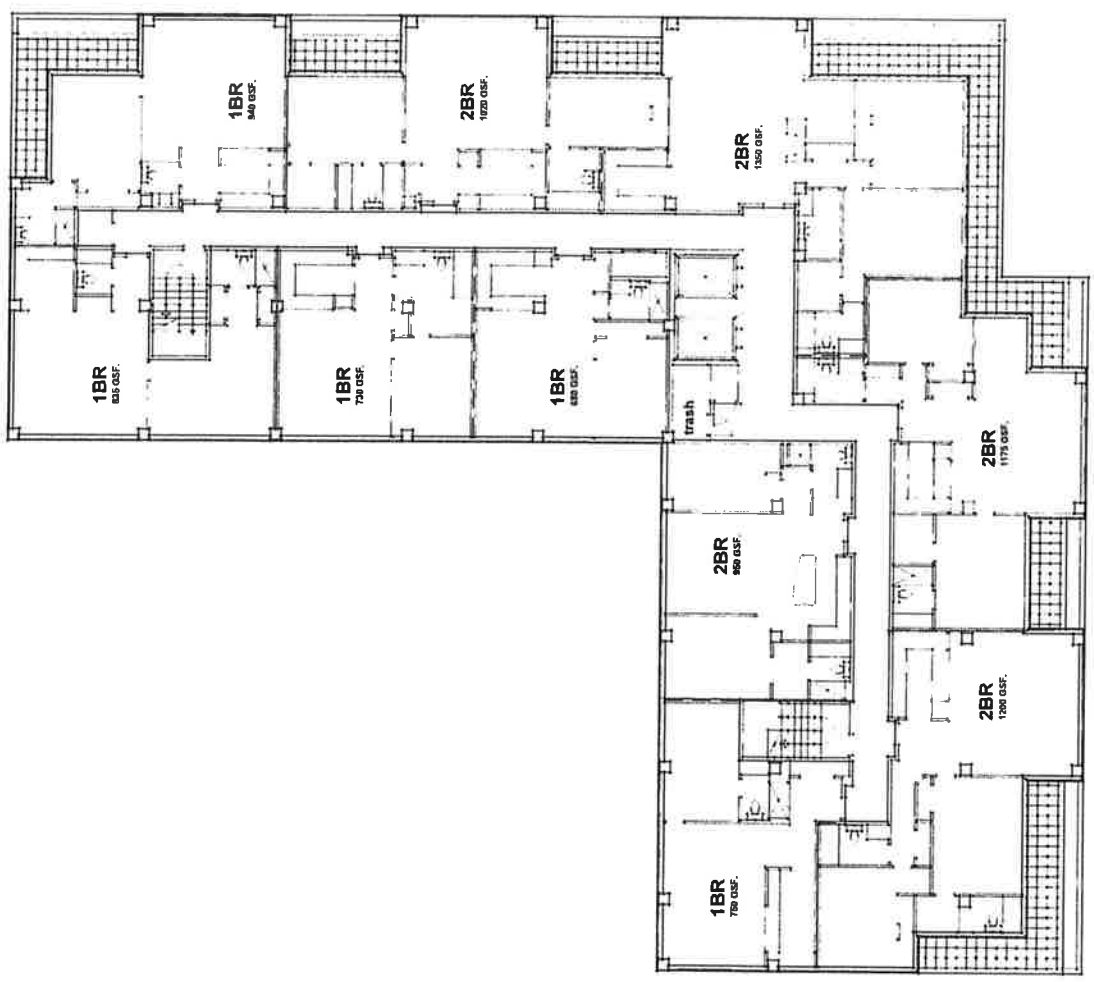
CLIENT  
The Brighton Partnership  
for Community  
Reinvestment, LLC

Charing Cross, a joint venture of  
Diamond Street, LLC  
& Hoyt Development Associates



## Charing Cross

LEVEL 5:  
5X1BR  
5X2BR  
10 TOTAL UNITS





246 Walnut Street  
Newton, MA 02460

# LEED Certification Checklist

Project Name: 1501 Commonwealth Avenue  
Project Address: Brighton, Massachusetts

Yes	?	No
8		3

Yes	?	No	Prereq	Credit	Description	Required
			Prereq 1		<b>Construction Activity Pollution Prevention</b>	Required
1			Credit 1		<b>Site Selection</b>	1
1			Credit 2		<b>Development Density &amp; Community Connectivity</b>	1
		1	Credit 3		<b>Brownfield Redevelopment</b>	1
1			Credit 4.1		<b>Alternative Transportation, Public Transportation Access</b>	1
1			Credit 4.2		<b>Alternative Transportation, Bicycle Storage &amp; Changing Rooms</b>	1
	1		Credit 4.3		<b>Alternative Transportation, Low-Emitting &amp; Fuel-Efficient Vehicles</b>	1
1			Credit 4.4		<b>Alternative Transportation, Parking Capacity</b>	1
		1	Credit 5.1		<b>Site Development, Protect or Restore Habitat</b>	1
		1	Credit 5.2		<b>Site Development, Maximize Open Space</b>	1
1			Credit 6.1		<b>Stormwater Design, Quantity Control</b>	1
	1		Credit 6.2		<b>Stormwater Design, Quality Control</b>	1
			Credit 7.1		<b>Heat Island Effect, Non-Roof</b>	1
1			Credit 7.2		<b>Heat Island Effect, Roof</b>	1
1			Credit 8		<b>Light Pollution Reduction</b>	1

Yes	?	No
2		1

Yes	?	No	Credit	Description	Required
			Credit 1.1	<b>Water Efficient Landscaping, Reduce by 50%</b>	1
			Credit 1.2	<b>Water Efficient Landscaping, No Potable Use or No Irrigation</b>	1
		1	Credit 2	<b>Innovative Wastewater Technologies</b>	1
1			Credit 3.1	<b>Water Use Reduction, 20% Reduction</b>	1
			Credit 3.2	<b>Water Use Reduction, 30% Reduction</b>	1

8
---

Yes	?	No	Prereq	Credit	Description	Required
			Prereq 1		<b>Fundamental Commissioning of the Building Energy Systems</b>	Required
			Prereq 2		<b>Minimum Energy Performance</b>	Required
			Prereq 3		<b>Fundamental Refrigerant Management</b>	Required
6			Credit 1		<b>Optimize Energy Performance</b>	1 to 10
					10.5% New Buildings or 3.5% Existing Building Renovations	
					14% New Buildings or 7% Existing Building Renovations	
					17.5% New Buildings or 10.5% Existing Building Renovations	
					21% New Buildings or 14% Existing Building Renovations	
					24.5% New Buildings or 17.5% Existing Building Renovations	
6					28% New Buildings or 21% Existing Building Renovations	
					31.5% New Buildings or 24.5% Existing Building Renovations	
					35% New Buildings or 28% Existing Building Renovations	
					38.5% New Buildings or 31.5% Existing Building Renovations	
					42% New Buildings or 35% Existing Building Renovations	
2			Credit 2		<b>On-Site Renewable Energy</b>	1 to 3
					2.5% Renewable Energy	
2					7.5% Renewable Energy	
					12.5% Renewable Energy	
			Credit 3		<b>Enhanced Commissioning</b>	1
			Credit 4		<b>Enhanced Refrigerant Management</b>	1
			Credit 5		<b>Measurement &amp; Verification</b>	1
			Credit 6		<b>Green Power</b>	1

Project Name: 1501 Commonwealth Avenue  
 Project Address: Brighton, Massachusetts

continued...

5	?	No
---	---	----

Yes	?	No	Prereq		Required
			Prereq 1	<b>Storage &amp; Collection of Recyclables</b>	
			Credit 1.1	<b>Building Reuse, Maintain 75% of Existing Walls, Floors &amp; Roof</b>	1
			Credit 1.2	<b>Building Reuse, Maintain 100% of Existing Walls, Floors &amp; Roof</b>	1
			Credit 1.3	<b>Building Reuse, Maintain 50% of Interior Non-Structural Elements</b>	1
1			Credit 2.1	<b>Construction Waste Management, Divert 50% from Disposal</b>	1
1			Credit 2.2	<b>Construction Waste Management, Divert 75% from Disposal</b>	1
			Credit 3.1	<b>Materials Reuse, 5%</b>	1
			Credit 3.2	<b>Materials Reuse, 10%</b>	1
1			Credit 4.1	<b>Recycled Content, 10% (post-consumer + _ pre-consumer)</b>	1
			Credit 4.2	<b>Recycled Content, 20% (post-consumer + _ pre-consumer)</b>	1
1			Credit 5.1	<b>Regional Materials, 10% Extracted, Processed &amp; Manufactured Regionally</b>	1
			Credit 5.2	<b>Regional Materials, 20% Extracted, Processed &amp; Manufactured Regionally</b>	1
1			Credit 6	<b>Rapidly Renewable Materials</b>	1
1			Credit 7	<b>Certified Wood</b>	1

9		
---	--	--

Yes	?	No	Prereq		Required
			Prereq 1	<b>Minimum IAQ Performance</b>	
			Prereq 2	<b>Environmental Tobacco Smoke (ETS) Control</b>	Required
			Credit 1	<b>Outdoor Air Delivery Monitoring</b>	Required
			Credit 2	<b>Increased Ventilation</b>	1
1			Credit 3.1	<b>Construction IAQ Management Plan, During Construction</b>	1
1			Credit 3.2	<b>Construction IAQ Management Plan, Before Occupancy</b>	1
			Credit 4.1	<b>Low-Emitting Materials, Adhesives &amp; Sealants</b>	1
			Credit 4.2	<b>Low-Emitting Materials, Paints &amp; Coatings</b>	1
1			Credit 4.3	<b>Low-Emitting Materials, Carpet Systems</b>	1
1			Credit 4.4	<b>Low-Emitting Materials, Composite Wood &amp; Agrifiber Products</b>	1
1			Credit 5	<b>Indoor Chemical &amp; Pollutant Source Control</b>	1
			Credit 6.1	<b>Controllability of Systems, Lighting</b>	1
			Credit 6.2	<b>Controllability of Systems, Thermal Comfort</b>	1
			Credit 7.1	<b>Thermal Comfort, Design</b>	1
			Credit 7.2	<b>Thermal Comfort, Verification</b>	1
1			Credit 8.1	<b>Daylight &amp; Views, Daylight 75% of Spaces</b>	1
1			Credit 8.2	<b>Daylight &amp; Views, Views for 90% of Spaces</b>	1

1		
---	--	--

Yes	?	No	Credit		Required
			Credit 1.1	<b>Innovation in Design: Provide Specific Title</b>	1
			Credit 1.2	<b>Innovation in Design: Provide Specific Title</b>	1
			Credit 1.3	<b>Innovation in Design: Provide Specific Title</b>	1
			Credit 1.4	<b>Innovation in Design: Provide Specific Title</b>	1
1			Credit 2	<b>LEED® Accredited Professional</b>	1

34		4
----	--	---

**Project Totals (pre-certification estimates)** **69 Points**  
 Certified: 26-32 points, Silver: 33-38 points, Gold: 39-51 points, Platinum: 52-69 points





## **TISE DESIGN ASSOCIATES**

Planning • Architecture • Program Management

246 Walnut Street Suite 303  
Newton, Massachusetts 02460  
(617) 581-6601 FAX (617) 581-6611

**February 17, 2012**

**Merrill H. Diamond  
DIAMOND SINACORI, LLC  
IGNITION RESIDENTIAL, LLC  
231 West Canton St., Suite 1  
Boston, MA 02116**

### **1501 COMMONWEALTH AVENUE: CHARING CROSS - AIR QUALITY AND NOISE CONTROL STANDARDS**

#### **1. General**

The proposed 55 unit residential structure referred to as *Charing Cross* is expected to have a minimal impact on both air quality and noise in the general neighborhood. The project locus is not directly adjacent to any residential environments, with commercial office space, Commonwealth Avenue, Brighton Marine Hospital, and permanent open space as the four direct abutters.

The 55 vehicle, single-level garage will be "enclosed" as per the requirements of the Massachusetts State Building Code, and therefore will require mechanical ventilation of the enclosed area. All necessary fans and related equipment will be within the enclosed building volume, and appropriate points of supply and exhaust air discharge will be determined in final design of the building.

Heat and hot water will be provided by a high efficiency gas boiler and DHW system located internally, and venting will be designed to meet all applicable City and Commonwealth of Massachusetts requirements for noise abatement as well as air quality standards.

Air conditioning will be by individual, high efficiency "lo-son" condensing units mounted behind a solid parapet on the roof level and similarly will be engineered to meet all applicable City and Commonwealth of Massachusetts noise standards for adjacent properties.

Subsequent to final design, the developers should perform an engineering analysis of the air quality and ambient noise characteristics of the proposal and submit a full report to the BRA and ISD that addresses the issues prior to applying for a building permit.

The scope of this report will be as follows:

## **2. Scope of Work**

The BRA air quality and noise scopes for this project require: 1) a description of the project's ventilation system for the underground garage and an analysis of the air quality impacts (carbon monoxide) of garage ventilation at sensitive receptors; 2) an evaluation of existing noise levels with sound level monitoring; and 3) an analysis of potential noise impacts from the building's exterior mechanical systems, with a demonstration of compliance with City of Boston and Massachusetts Noise Regulations at nearby sensitive locations.

## **3. Air Quality**

### ***Garage Air Quality Analysis***

Qualified engineers will analyze the worst-case air quality impacts, from the project's garage exhaust on air quality at all nearby sensitive receptors. Maximum one-hour and eight-hour CO concentrations will be calculated for receptors located near the building. The AERSCREEN model will be used for predicting the ambient air impacts. AERSCREEN will predict CO impacts and background CO concentrations, and will be compared to the NAAQS for CO at all sensitive receptors to demonstrate compliance with the NAAQS for CO.

## **4. Noise**

### ***Existing Ambient Noise Evaluation***

Two 30-minute noise measurements will be taken near the project site during late night hours to establish the minimum existing background sound levels at sensitive locations around the project site.

These measurements will be used to establish the existing L90 background sound levels to test compliance with the Massachusetts DEP 10 dBA allowable noise increase regulation for the exterior mechanical equipment at the proposed buildings.

### ***Analysis of Noise Impacts from Mechanical Equipment***

An analysis will be made of the potential noise impacts from the exterior mechanical equipment for the proposed project. It will be necessary to demonstrate that the projected noise levels from the building's exterior mechanical equipment will not exceed specified City of Boston noise control criteria at the nearest residences and at the property line.

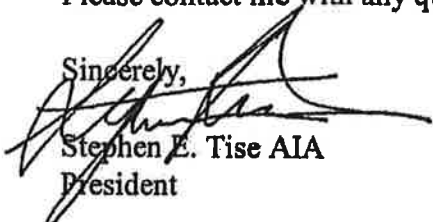
Sound impact modeling will be completed using the Cadna-A computer model, in accordance with International Standard ISO 9613.2 "Acoustics - Attenuation of Sound During Propagation Outdoors." Cadna-A is a sophisticated 3-dimensional model that accounts for sound attenuation due to building structures, atmospheric absorption and ground effects. Cadna-A will correctly simulate all relevant acoustic effects involving sound propagation, reflection and attenuation. The predicted sound level impacts will also be compared to Massachusetts DEP broadband incremental increase and tonal provisions. If necessary, conceptual noise mitigation measures will be proposed and incorporated into the modeling analysis in order to demonstrate compliance with any of the noise level limits.

## 5. Report

The results of the air quality and noise analyses will be presented in a written report. All computer modeling output, noise monitoring printouts, and other supporting information will be combined into technical appendices. The report and the technical appendices will be forwarded to the BRA and ISD as a condition of receiving a building permit for the project.

Please contact me with any questions regarding this letter.

Sincerely,



Stephen E. Tise AIA  
President





## Boston Inspectional Services Department Planning and Zoning Division

1010 Massachusetts Avenue Boston, MA 02118 Telephone: (617) 635-5300

Thomas M. Menino  
Mayor

### ZONING CODE REFUSAL

Gary P. Moccia  
Inspector of Buildings

MERRILL DIAMOND  
437 COLUMBUS AVENUE  
BOSTON, MA 02116

May 16, 2011

**Location:** 1501 COMMONWEALTH AV BRIGHTON, MA 02135  
**Ward:** 21  
**Zoning District:** Allston / Brighton  
**Zoning Subdistrict:** MFR-1  
**Appl. # :** ERT69946  
**Date Filed:** March 29, 2011  
**Purpose:** Demolition of an existing two story Nursing Home. Erect a new, 5 story, masonry, Residential condominium Dwelling of Fifty-five ( 55 ) Units with an Accessory Parking Garage under. Charing Cross Condominiums

YOUR APPLICATION REQUIRES RELIEF FROM THE BOARD OF APPEAL AS SAME WOULD BE IN VIOLATION OF THE BOSTON ZONING CODE TO WIT: CHAPTER 665, ACTS OF 1956 AS AMENDED:

<u>Violation</u>	<u>Violation Description</u>	<u>Violation Comments</u>
Art. 29, Section 4 **	Greenbelt Protection Overlay District	GPOD Applicability
Art. 51 Sec. 09	Dimensional Regulations Applicable in Residential Sub	Lot Area for Additional Dwelling Units Insufficient
Art. 51 Sec. 09	Dimensional Regulations Applicable in Residential Sub	Building Height Excessive
Art. 51 Sec. 09	Dimensional Regulations Applicable in Residential Sub	Usable Open Space Insufficient
Art. 51 Sec. 09	Dimensional Regulations Applicable in Residential Sub	Front Yard Insufficient
Art. 51 Sec. 09	Dimensional Regulations Applicable in Residential Sub	Side Yard Insufficient
Art. 51 Sec. 09	Dimensional Regulations Applicable in Residential Sub	Rear Yard Insufficient
Art. 51 Sec. 56	Off street parking requirements	Off-Street Parking Insufficient
Art. 51 Sec. 56	Off street parking requirements	Off-Street Parking Design / Maneuverability

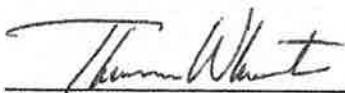


MERRILL DIAMOND  
437 COLUMBUS AVENUE  
BOSTON, MA 02116

May 16, 2011

**Location:** 1501 COMMONWEALTH AV BRIGHTON, MA 02135  
**Ward:** 21  
**Zoning District:** Allston / Brighton  
**Zoning Subdistrict:** MFR-1  
**Appl. # :** ERT69946  
**Date Filed:** March 29, 2011  
**Purpose:** Demolition of an existing two story Nursing Home. Erect a new, 5 story, masonry, Residential condominium Dwelling of Fifty-five ( 55 ) Units with an Accessory Parking Garage under. Charing Cross Condominiums

THIS DECISION MAY BE APPEALED TO THE BOARD OF APPEAL WITHIN FORTY-FIVE (45) DAYS PURSUANT TO CHAPTER 665 OF THE ACTS OF 1956, AS AMENDED. APPLICATIONS NOT APPEALED WITHIN THAT TIME PERIOD WILL BE DEEMED ABANDONED. IF YOU HAVE INQUIRIES REGARDING THE NEIGHBORHOOD PROCESS AND PUBLIC PARTICIPATION, PLEASE CONTACT THE MAYOR'S OFFICE OF NEIGHBORHOOD SERVICES AT 617-635-3485.



Thomas White  
(617)961-3275  
for the Commissioner

Refusal of a permit may be appealed to the Board of Appeal within 45 days. Chapter 802, Acts of 1972, and Chapter 656, Acts of 1956, Section 19.



# **The Brighton Partnership for Community Reinvestment, LLC**

*a Joint Venture of*

**Diamond Sinacori, LLC & Hart Development Associates**

437 Columbus Avenue · Boston, Massachusetts 02116

617-369-5650 (tel) · 617-369-5652 (fax)

[www.believeinbrighton.com](http://www.believeinbrighton.com)

23 May 2011

Peter Meade, Director  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA 02201-1007

Re: Updated Letter of Intent – 1501 Commonwealth Avenue – ‘Charing Cross’

Dear Mr. Meade:

Pursuant to Mayor Menino’s Executive Order Regarding the Mitigation of Development Projects, we are submitting this Letter of Intent in connection with the proposed redevelopment of the former Provident Nursing Home, 1501 Commonwealth Avenue in Brighton, into a mixed-income residential complex with accessory parking. This updated Letter of Intent is being submitted in lieu of a prior letter previously submitted to the Authority on April 10, 2010.

The property is a gateway site, and it presents a unique opportunity to provide market rate and much needed affordable housing for the City. *Charing Cross* promises to be one of the best new buildings in this part of the City in the past half century, and will complement the best of Commonwealth Avenue’s historic fabric.

The proposed project will contain approximately 65,000 gross square feet, 55 residential condominium units, and will include a residential parking garage. The Community Benefits package includes, among other things, streetscape improvements on Commonwealth Avenue, a donation to beautify adjacent Ringer Park, the enhancement of the computer center at the nearby Commonwealth housing development, and the creation of both construction and property management apprenticeship programs for area youths.

The Project will exceed the City’s affordable housing requirements, and will require zoning relief.

We look forward to working with you and the BRA staff on this very exciting project.

Sincerely,

DR Hart

Daniel R. Hart

For the Brighton Partnership for Community Reinvestment, LLC

cc: Heather Campisano, BRA  
Lance Campbell, BRA  
Evelyn Friedman, DND  
John Feuerbach, DND  
Merrill Diamond, BPCR  
Nicholas Sinacori, BPCR

**Project Notification Form/Application for Small Project Review**

**Required Information for Document Preparation**

For projects undergoing review and consideration under Article 80 of the Boston Zoning Code, applicants are requested to ensure that the following information is included in its Project Notification Form or Application for Small Project review, as the case may be:

**Applicant/Project Proponent** The Brighton Partnership for Community Reinvestment, LLC \_\_\_\_\_  
Developer \_ The Brighton Partnership for Community Reinvestment, LLC \_\_\_\_\_  
Contact Daniel R. Hart \_\_\_\_\_  
Mailing Address 437 Columbus Avenue, Boston, MA 02116 \_\_\_\_\_  
Phone No. (617) 480-4175 Fax No. (617) 507-2437 Email dhart@hartdev.com \_\_\_\_\_

**Brief Project Description:** Charing Cross is a an approximate 65,000 gross square foot condominium building of new construction containing 55 residential units and a residential parking garage.

Anticipated Submission Date \_September 2011\_\_\_\_\_   
Anticipated Advertisement Date (if applicable) \_\_September 2011\_\_\_\_\_

Proposed Project Name Charing Cross \_\_\_\_\_  
Project Address \_1501 Commonwealth Avenue, Brighton, MA \_\_\_\_\_  
Assessor Parcel I.D. **01830-000** \_\_\_\_\_ Neighborhood **Brighton** \_\_\_\_\_  
Sub-Neighborhood (if applicable) \_\_\_\_\_  
Zoning District \_\_MFR-1\_\_\_\_\_   
Urban Renewal Area ("URA") \_None\_\_\_\_\_

Does Project Require Modification to URA?(Y/N) \_\_N\_\_ **If modification to URA is required, please describe modifications to be requested:** \_\_\_\_\_  
\_\_\_\_\_

Inst. Master Plan (Y/N) \_\_N\_\_ Planned Development Area (Y/N) \_\_N\_\_ 121A (Y/N) \_\_N\_\_  
Zoning Relief Required -- Zoning Board of Appeals (Y/N) \_\_Y\_\_ Boston Zoning Commission (Y/N) \_\_N\_\_

Development Program

Parcel Area (Sq. Ft.) \_31,320\_\_\_\_\_   
Proposed Building Area (Sq. Ft.) \_65,000\_\_\_\_\_   
Proposed Building Height (Feet) \_\_65'\_\_\_\_\_ Number of Floors \_\_\_\_5\_\_\_\_\_   
Ground Floor Use \_\_Parking\_\_\_\_\_ Upper Floor Use \_\_\_\_Residential\_\_\_\_\_

Retail Sq. Ft. \_\_\_\_0\_\_\_\_\_ Office Sq. Ft. \_\_\_\_0\_\_\_\_\_ Hotel Sq. Ft. \_\_\_\_0\_\_\_\_\_

Industrial Sq. Ft. \_\_\_\_0\_\_\_\_\_ Institutional Sq. Ft. \_\_\_\_0\_\_\_\_\_ R&D Sq. Ft. \_\_\_\_0\_\_\_\_\_

Residential Sq. Ft. \_\_65,000\_\_\_\_\_ Total Units \_\_\_\_55\_\_\_\_\_ Condo \_\_55\_\_\_\_\_ Rental \_\_\_\_\_

Market Units \_\_38\_\_\_\_\_ Affordable Units \_\_17\_\_\_\_\_ Studios \_\_\_\_\_ 1 bdrms \_\_21\_\_\_\_\_ 2bdrms \_\_32\_\_\_\_\_

3bdrms \_\_3\_\_\_\_\_ Artist Live/Work \_\_0\_\_\_\_\_ SRO \_\_0\_\_\_\_\_ Elderly \_\_0\_\_\_\_\_

Total Parking Spaces \_\_\_\_55\_\_\_\_\_ Surface \_\_\_\_\_ Structured \_\_55\_\_\_\_\_ Below Grade \_\_\_\_\_

(If multiple buildings are proposed, please provide development program information for each building)

Total Development Cost (soft/hard costs) \$18,000,000  
Construction Cost (hard cost) \$14,500,000

Public Benefits

Number of Permanent Jobs Created (full-time equivalent) 2  
Number of Permanent Jobs Retained (full-time equivalent) 2  
Number of Construction Jobs Created (full-time equivalent) 250

Estimated Development Impact Project Payments (if applicable)

Neighborhood Housing Trust 0 Neighborhood Jobs Trust 0

Estimated Construction Start Fall 2012 Estimated Construction Completion Fall 2013

Disclosure of Beneficial Interest in the Project

Name	Address	Percentage Interest
Daniel R. Hart	437 Columbus Avenue	
Merrill Diamond	437 Columbus Avenue	
Nicholas Sinacori	437 Columbus Avenue	

