

Elmrock Estates

Grafton, MA.

Comprehensive Permit Application

**Submitted To:
Grafton ZBA
October 2016**

ELMROCK ESTATES

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Elmrock Estates

Grafton, Massachusetts

Comprehensive Permit Application
Under M.G.L. Chapter 40B, Sections 20-23

Submitted by:

Fieldstone Realty, LLC

October, 2016

Town of Grafton Massachusetts
ZONING BOARD OF APPEALS

Premises affected: A 17.99 acres parcel of land, at 21 Wheeler Road & 106 Brigham Hill Road

**APPLICATION FOR A COMPREHENSIVE PERMIT
UNDER GENERAL LAW CHAPTER 40B, SECTIONS 20-23**

Fieldstone Realty, LLC (hereinafter the "Applicant") hereby applies to the Board of Appeals of the Town of Grafton, Massachusetts, pursuant to General Laws, Chapter 40B, Section 20 through 23, as amended, for the issuance of a Comprehensive Permit authorizing the applicant to construct 36 homeownership style units on land located 21 Wheeler Road & 106 Brigham Hill Road in Grafton, Massachusetts. The applicant and the development are more particularly described in the exhibits hereto annexed and submitted simultaneously herewith, all of which are incorporated herein by reference and constitute the documents required to be submitted under the regulations for filing a 40B application by the Massachusetts Department of Housing and Community Development (760 CMR 56.00).

REQUEST FOR FINDINGS OF FACT

The applicant requests that the Board of Appeals make the following findings of fact in connection with the action of the Board on this application:

1. Fieldstone Realty, LLC, a limited dividend organization within the meaning of General Laws, Chapter 40B and 760 CMR 56.02, and is eligible to receive a subsidy under a state or federal affordable housing program after a Comprehensive Permit has been granted.
2. The applicant has shown evidence of its site control to qualify it as a recipient of a Comprehensive Permit for this site.
3. Masshousing, as the Program Administrator of the New England Fund (NEF) Program, will be the subsidizing agency within the meaning of the regulations of 40B (760 CMR 56.00) and within the meaning of the procedural regulations of the Housing Appeals Committee (760 CMR:30.01(C)).
4. The number of low or moderate income housing units in the Town of Grafton constitutes less than ten percent (10%) as reported in the latest decennial census of the town and reported by the Department of Housing & Community Development as of Dec 5, 2014.
5. The development as proposed in the application is consistent with local needs within the meaning of General Laws, Chapter 40B, Section 20.

The applicant respectfully requests the Board of Appeals after complying with the procedural requirements as provided by law, to issue to the applicant a Comprehensive Permit for the development.

Fieldstone Realty, LLC

By: _____
Peter Adams
Manager

PROJECT DATA SUMMARY

1. Applicant

Fieldstone Realty, LLC (the "Applicant") has been organized under the General Laws of the State of Massachusetts and is qualified to undertake the planning and development of the proposed homeownership community in Grafton, MA. The Applicant will develop 36 homeownership style units on a limited dividend basis as required under all laws and regulations of the Commonwealth of Massachusetts. The project manager and member of Fieldstone Realty, LLC, Peter Adams, has experience on several housing developments in Eastern Massachusetts. The Applicant respectfully requests that all notices from the Board in connection with this Application be sent to Moira Cronin, 165 Chestnut Hill Avenue, Unit 2, Brighton MA 02135

2. Description of the Development

Elmrock Estates is comprised of 36 single family homes. There will be varying architectural styles, but all single-family homes with equal numbers of bedrooms and bathrooms. Interior components will feature finishes such as granite, tile, fixtures, and trim/molding.

The site plan maintains a consistent massing, scale and building typology - consistent with the surrounding residential neighborhood. The character of this area of Grafton is single family homes of moderate scale with a natural development over time.

The "street" facades are a mixture of roof shapes and configurations, building materials, and entry types which help define them as more consistent with single family residences within the surrounding neighborhoods. The buildings are consistently 2 stories. The height and footprint of the proposed buildings are of a scale that is reminiscent of neighboring homes. Pitched roofs, clapboard and shingle siding, architectural roof shingles, double hung windows and appropriate scale overall detailing are part of the concept that ties this project to the context of the surroundings.

The buildings will vary in color schemes and basic façade design to produce a more natural feel and avoid monotony. Human scale elements such as porches and small exterior patio areas will also be part of the design

The proposed location will be located approximately 0.4 to 0.7 miles from a variety of services including retail stores, restaurants and gas stations. The Elmrock Estate community will be serviced by town water, sewer, gas and electricity. This new community will utilize approximately 1,550' of new roadway, sidewalks and a storm drainage system. The proposed community is also adjacent to and largely surrounded by conservation land.

The proposal includes nine units (25%) to serve households earning up to 80% AMI.

3. Qualification as a 40B Development

The development qualifies as assisted "low or moderate income housing" within the meaning of Massachusetts General Laws Chapter 40B, section 20 and will provide nine units (25%) which will serve households earning at or below 80% of area median income and thus will meet the definition of low and moderate income under the statute. The Applicant will develop this project pursuant to the guidelines of the Masshousing New England Fund Program administered by Masshousing under which a site approval letter has been granted.

Preliminary architectural drawings and engineering plans are attached hereto in reduced form and under separate cover as full size drawings.

4. Local Need

According to figures compiled by the Massachusetts Department of Communities and Development (DHCD), in December 2014, Grafton's subsidized housing inventory represented 4.5% of its total housing stock, which is below the threshold requirements established under Chapter 40B of M.G.L.

5. Exceptions and Approvals Requested

The subject property is zoned as in a "Residential Zoning District." Residential and agricultural lands abut the western boundary; undeveloped wooded land abuts the southern boundary; residential and undeveloped wooded lands abut the eastern boundary; and residential properties are located to the north of the property across Wheeler Road. Certain elements of the proposed development do not comply with the current underlying zoning. Consequently, an exception of use is required to enable multi-family residential at the proposed density to be constructed. Other exceptions to the Town of Grafton's Zoning Bylaws and other local land use regulations are specifically detailed in this application. If any specific exceptions have not been listed in this application, the applicant, upon notification of such an oversight, shall promptly amend the list of exceptions included herein.

CONCLUSION

For all of the foregoing reasons, and for the additional reasons the Applicant will present at the scheduled public hearing on this Application, the Applicant respectfully requests the Board, after complying with the procedural requirements as provided by law, issue to the Applicant a Comprehensive Permit for the Development.

APPLICANT STATUS

The applicant, Fieldstone Realty, LLC is a Massachusetts limited liability company which is a Limited Dividend Organization within the meaning of 760 CMR 56.02 and an eligible applicant under 760 CMR 56.04. Pursuant to the New England Fund Program administered by MassHousing as the subsidizing agency, the applicant intends to enter into a Regulatory Agreement providing for (i) affordability of the proposed affordable units and (ii) limitation on the applicant's return on investment substantially in form attached.



Massachusetts Housing Finance Agency
One Beacon Street, Boston, MA 02108

TEL: 617.854.1000 | FAX: 617.854.1091
VP: 866.758.1435 | www.masshousing.com

August 11, 2016

Mr. Peter J. Adams
Fieldstone Realty, LLC
100 Brigham Hill Road
Grafton, MA 02519

**Re: Fieldstone Farms, Grafton
Project Eligibility/Site Approval
Project #835**

Dear Mr. Adams:

This letter is in response to your application as “Applicant” for a determination of Project Eligibility (Site Approval) pursuant to Massachusetts General Laws Chapter 40B (“Chapter 40B”), 760 CMR 56.00 (the “Regulations”) and the Comprehensive Permit Guidelines issued by the Department of Housing and Community Development (“DHCD”) (the “Guidelines” and, collectively with Chapter 40B and the Regulations, the “Comprehensive Permit Rules”), under the New England Fund (“NEF”) Program (“the Program”) of the Federal Home Loan Bank of Boston (“FHLBB”).

You have proposed to build 36 homeownership units (the “Project”) on 17.81 acres of land located at 21 Wheeler Road & 106 Brigham Hill Road (the “Site”) in Grafton, MA (the “Municipality”).

In accordance with the Comprehensive Permit Rules, this letter is intended to be a written determination of Project Eligibility (“Site Approval”) by MassHousing acting as Subsidizing Agency under the Guidelines, including Part V thereof, “Housing Programs In Which Funding Is Provided By Other Than A State Agency.”

MassHousing has performed an on-site inspection of the Site, which local boards and officials were invited to attend, and has reviewed the pertinent information for the Project submitted by the Applicant, the Municipality and others in accordance with the Comprehensive Permit Rules.

Municipal Comments

Pursuant to the Regulations, the Municipality was given a thirty (30) day period in which to review the Site Approval application and submit comments to MassHousing. The Grafton Board of Selectmen submitted comments to MassHousing regarding the Application on July 15, 2016, summarizing comments from municipal officials, staff and members of the public. The following concerns were identified in their comments:

- The Municipality expressed concern about storm-water management issues resulting from an increase in impervious surface area and the potential negative impacts on abutting properties and roadways.
- The Municipality expressed concern regarding the ability of public safety vehicles to effectively maneuver around the proposed development access road due to potential conflicts with on-street visitor parking in the event of an emergency.
- The Municipality is concerned that the additional 36 homes proposed for this development would significantly increase the number of homes served by the existing road network creating a public safety hazard.
- The Municipality encourages you to consider a cluster development closer to Wheeler Road that will preserve additional areas of open space within the Site.

Community Comments

MassHousing received several letters from area residents, all of which expressed opposition to the proposed development. While letters from members of the community basically echoed the concerns identified by the local officials, the letters received are summarized below:

- Area residents expressed concern that the site supports a diverse wildlife population and that the proposed development may result in harm to wildlife and its associated habitat.
- Area residents believe the proposed buildings represent a significant departure from the character and scale of the existing residential neighborhood.
- Area residents expressed concern that the proposed development may result in an increase in traffic volume and delays throughout the area.

MassHousing Determination and Recommendations

MassHousing staff has determined that the Project appears generally eligible under the requirements of the Program, subject to final review of eligibility and to Final Approval. As a result of our review, we have made the findings as required pursuant to 760 CMR 56.04(1) and (4). Each such finding, with supporting reasoning, is set forth in further detail on Attachment 1 hereto. It is important to note that Comprehensive Permit Rules limit MassHousing to these specific findings in order to determine Project Eligibility. If, as here, MassHousing issues a determination of Project Eligibility, the Developer may apply to the Zoning Board of Appeals of the Municipality for a comprehensive permit. At that time local boards, officials and members of the public are provided the opportunity to further review the Project to ensure compliance with applicable state and local standards and regulations.

Based on MassHousing's site and design review, and in light of feedback received from the Municipality, the following issues should be addressed in your application to the Bridgewater Zoning Board of Appeals, and you should be prepared to explore them more fully during the public hearing process:

- Development of this site will require resolution of all environmental conditions per laws, regulations and standards applicable to existing conditions and to the proposed use, including but not limited to compliance with all applicable regulatory restrictions relating to floodplain management, the protection of wetlands (WPA), river and wildlife habitats/conservation areas as well as local and state environmental protection requirements relating to the protection of the public water supply, storm water runoff and hazardous waste safety. The Applicant should provide evidence of such compliance prior to the issuance of a building permit for the project.
- The Applicant should provide a detailed traffic study assessing potential impacts of the Project on area roadways, including traffic volumes, crash rates, and the safety and level of service (LOS) of area intersections, and identifying appropriate traffic mitigation in compliance with all applicable state and local requirements governing site design.
- The Applicant should be prepared to respond to Municipal concerns relative to the safety and functionality of the proposed internal roadway and pedestrian circulation plan.
- The Applicant should be prepared to discuss alternative development scenarios that may include a cluster development closer to Wheeler Street.

MassHousing has also reviewed the application for compliance within the requirements of 760 CMR 56.04(2) relative to Application requirements, and has determined that the material provided by the Applicant is sufficient to show compliance.

This approval is expressly limited to the development of no more than thirty six (36) homeownership units under the terms of the Program, with not less than nine (9) of such units restricted as affordable homeownership units for low and moderate income persons or families as required under the terms of the Guidelines. It is not a commitment or guarantee of NEF financing and does not constitute a site plan or building design approval. Should you consider, prior to obtaining a Comprehensive Permit, the use of any other housing subsidy program, the construction of additional units or a reduction in the size of the Site, you may be required to submit a new Site Approval application for review by MassHousing. Should you consider a change in tenure type or a change in building type or height, you may be required to submit a new Site Approval application for review by MassHousing.

For guidance on the Comprehensive Permit review process, you are advised to consult the Guidelines. Further, we urge you to review carefully with legal counsel the M.G.L. c.40B Comprehensive Permit Regulations and 760 CMR 56.00.

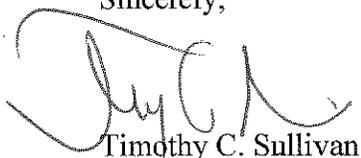
This approval will be effective for a period of two years from the date of this letter. Should the Applicant not apply for a Comprehensive Permit within this period or should MassHousing not extend the effective period of this letter in writing, this letter shall be considered to have expired and no longer be in effect. In addition, the Applicant is required to notify MassHousing at the following times throughout this two year period: (1) when the Applicant applies to the local ZBA for a Comprehensive Permit, (2) when the ZBA issues a decision and (3) if applicable, when any appeals are filed.

Should a comprehensive permit be issued, please note that prior to (i) commencement of construction of the Project or (ii) issuance of a building permit, the Applicant is required to submit to MassHousing a request for Final Approval of the Project (as it may have been amended) in accordance with the Comprehensive Permit Rules (see especially 760 CMR 56.04(07) and the Guidelines including, without limitation, Part III thereof concerning Affirmative Fair Housing Marketing and Resident Selection). Final Approval will not be issued unless MassHousing is able to make the same findings at the time of issuing Final Approval as required at Site Approval.

Please note that MassHousing may not issue Final Approval if the Comprehensive Permit contains any conditions that are inconsistent with the regulatory requirements of the New England Fund Program of the FHLBB, for which MassHousing serves as Subsidizing Agency, as reflected in the applicable regulatory documents. In the interest of providing for an efficient review process and in order to avoid the potential lapse of certain appeal rights, the Applicant may wish to submit a “final draft” of the Comprehensive Permit to MassHousing for review. Applicants who avail themselves of this opportunity may avoid significant procedural delays that can result from the need to seek modification of the Comprehensive Permit after its initial issuance.

If you have any questions concerning this letter, please contact Michael J. Busby at (617) 854-1219.

Sincerely,



Timothy C. Sullivan
Executive Director

cc: Chrystal Kornegay, Undersecretary, Department of Housing and Community Development
Jennifer Thomas, Chairman, Town of Grafton
William McCusker, Chairman, Grafton Zoning Board of Appeals

Attachment 1.

760 CMR 56.04 Project Eligibility: Other Responsibilities of Subsidizing Agency
Section (4) Findings and Determinations

Fieldstone Farms, Grafton, MA #835

After the close of a 30-day review period and extension, if any, MassHousing hereby makes the following findings, based upon its review of the application, and taking into account information received during the site visit and from written comments:

(a) that the proposed Project appears generally eligible under the requirements of the housing subsidy program, subject to final approval under 760 CMR 56.04(7);

The Project is eligible under the NEF housing subsidy program and at least 25% of the units will be available to households earning at or below 80% of the Area Median Income, adjusted for household size, as published by the U.S. Department of Housing and Urban Development (“HUD”). The most recent HUD income limits indicate that 80% of the current median income for a four-person household in Grafton is \$65,700. The Applicant submitted a letter of financial interest from Webster Five Cents Savings Bank, a member bank of the FHLBB under the NEF Program.

(b) that the site of the proposed Project is generally appropriate for residential development, taking into consideration information provided by the Municipality or other parties regarding municipal actions previously taken to meet affordable housing needs, such as inclusionary zoning, multifamily districts adopted under c.40A, and overlay districts adopted under c.40R, (such finding, with supporting reasoning, to be set forth in reasonable detail);

Section IV-A (3) (a) of the Guidelines provide guidance to Subsidizing Agencies for evaluating a municipality’s actions intended to meet affordable housing needs.

MassHousing carefully reviewed the information provided by the Board of Selectmen of Grafton describing previous municipal actions intended to provide affordable housing. Specific examples cited by the Municipality include:

- The creation of an Affordable Housing Trust;
- 24 affordable units approved but not constructed; and
- A 40R designation at the former Fisherville Mill to encourage mixed use development.

Grafton does have a Housing Production Plan on file with DHCD. Grafton has 325 Subsidized Housing Inventory (SHI) units (4.5% of its housing inventory) and needs an additional 391 SHI units in order to meet the 10% SHI threshold. The current zoning allows for residential use, and the proposed residential development would be compatible with surrounding uses.

(c) that the conceptual project design is generally appropriate for the site on which it is located, taking into consideration factors that may include proposed use, conceptual site plan and building massing, topography, environmental resources, and integration into existing development patterns (such finding, with supporting reasoning, to be set forth in reasonable detail);

In summary, based on evaluation of the site plan using the following criteria, MassHousing finds that the proposed conceptual project design is generally appropriate for the Site. The following plan review findings are made in response to the conceptual plan, submitted to MassHousing.

Relationship to Adjacent Building Typology (Including building massing, site arrangement, and architectural details)

The Developer's approach is to maintain a consistent massing, scale and building typology to that of the surrounding neighborhood. The existing neighborhood consists of a mixture of housing types and configurations, roof elevations vary, but are primarily two stories in height. The Developer plans to incorporate porches, dormers, entrance porticos, bay windows and other architectural elements to create visual interest and incorporate subtle differences between the homes proposed to be built.

Relationship to Adjacent Streets

The Site is located on Wheeler Road west of Ronte 140 and south of the Massachusetts Turnpike. The relationship of the proposed Site access and egress to Wheeler Street does not present any discernable public safety impacts. The immediate area is developed with agricultural and residential uses on large tracts of land.

Density

The Applicant proposes to build 36 homes on 17.81 acres, of which 17.59 are buildable. The resulting density is 2.05 units per buildable acre, which is acceptable given the proposed housing type and patterns of development within the region.

Conceptual Site Plan

The Developer proposes 36 single-family homes on lots that will be approximately ½ an acre in size with some minor variations. The site plan is typical of other single-family subdivisions found throughout the Blackstone Valley.

Topography

The subject property rises gradually from Wheeler Road to the southwestern portion of the site. There is some bordering vegetated wetlands and an intermittent stream in the northeast corner of the site. The existing topography is not an impediment to the proposed development.

Environmental Resources

Directly abutting the Site is land owned by the Grafton Land Trust which has an extensive network of trails that may be used for hiking and cross country skiing. There is an intermittent stream in the northeast corner of the property and Bordering Vegetative Wetland on the southeast corner of the property. These two identified areas can be mitigated by an Order of Conditions

through the local Conservation Commission and ultimately do not present an impediment to the proposed site plan.

Proposed Use

Based on MassHousing staff's site inspection, internal discussions, and a thorough review of the application, MassHousing finds that the Site is suitable for residential use and development and that such use would be compatible with surrounding uses.

(d) that the proposed Project appears financially feasible within the housing market in which it will be situated (based on comparable rentals or sales figures);

The Project appears financially feasible based on a comparable sales submitted by the Applicant.

(e) that MassHousing finds that an initial pro forma has been reviewed, including a land valuation determination consistent with the Department's Guidelines, and the Project appears financially feasible and consistent with the Department's Guidelines for Cost Examination and Limitations on Profits and Distributions (if applicable) on the basis of estimated development costs;

The initial pro forma has been reviewed for the proposed residential use and the Project appears financially feasible with a projected profit margin of 9.9%. In addition, a third party appraisal commissioned by MassHousing has determined that the "As Is" land value for the Site of the proposed Project is \$660,000.

(f) that the Applicant is a public agency, a non-profit organization, or a Limited Dividend Organization, and it meets the general eligibility standards of the housing program; and

The Applicant must be organized as a Limited Dividend Organization prior to applying for Final Approval. MassHousing sees no reason this requirement could not be met given information reviewed to date. The Applicant meets the general eligibility standards of the NEF housing subsidy program and has executed an Acknowledgment of Obligations to restrict their profits in accordance with the applicable limited dividend provisions.

(g) that the Applicant controls the site, based on evidence that the Applicant or a related entity owns the site, or holds an option or contract to acquire such interest in the site, or has such other interest in the site as is deemed by the Subsidizing Agency to be sufficient to control the site.

The Applicant controls the entire 17.81 acre Site under a deed of ownership

Development Team

Developer

Fieldstone Farms, LLC
100 Brigham Hill Road
Grafton MA 01519
Phone: 508.320.5849

40B Consultant

Geoffrey Engler
SEB, LLC
165 Chestnut Hill Avenue, Unit #2
Brighton, MA.02135
Phone: 617.782.2300 x 202
Email: gengler@s-e-b.com

Architect

John Marro III
President of John Marro III, AIA
1 Grafton Common, Suite 12
Grafton MA 01519
Phone: 508.839.1101

Civil Engineer

Stephen O'Connell
VP of Andrews Survey & Engineering, Inc.
104 Mendon Street
P.O. Box 312
Uxbridge, MA 01569
Phone: 508.278.3897
Email: soconnell@andrews-engineering.com

Lottery Agent

Brian Engler
SEB, LLC
165 Chestnut Hill Avenue, Unit #2
Brighton, MA.02135
Phone: 617.782.2300 x 203
Email: Brian@s-e-b.com

Traffic Consultant

WSP-Parsons Brinckerhoff
75 Arlington Street, 9th Floor
Boston, MA 02116
Phone: 617.426.7330



2006 00127469

Bk: 39639 Pg: 141 Doc: DEED
Page: 1 of 2 08/24/2006 02:53 PM

Massachusetts Fiduciary Deed

I, **WALTER E. EKBLAW**, Executor of the Estate of Elsa M. Ekblaw, Worcester Probate Court Docket Number 00PR0508, pursuant to Judgment on Complaint in Equity dated June 23, 2005, Worcester Probate Court Docket No. 05E0053-GC1 and for consideration paid of **Six Hundred Fifty Thousand and 00/100 (\$650,000.00) Dollars** grant to **PETER J. ADAMS**, Trustee of the **ELMROCK REALTY TRUST**, u/d/t dated **May 12, 1999** and recorded with the Worcester District Registry of Deeds at Book 21390, Page 167, of 100 Brigham Hill Road, Grafton, Massachusetts

WITH QUITCLAIM COVENANTS

That certain parcel of land in said Grafton, Worcester County, Massachusetts, shown as Lot 5 on a Plan of Land entitled, "Plan of Land in Grafton, Massachusetts prepared for WALTER EKBLAW, Executor, Estate of Elsa B. Ekblaw, Scale 1"=60', dated May 2, 2005, Owner of Record: Estate of Elsa B. Ekblaw, 185 Blue Heron Lane, Alpharetta, Georgia 30004, Deed BK 2626, PG 385, prepared by Heritage Design Group, 1 Main Street, Whitinsville, Massachusetts 01588" recorded with the Worcester District Registry of Deeds on July 27, 2005 at Plan Book 829, Plan 47.

Said Lot 5 contains 418,451 ± square feet, according to said plan.

This conveyance is subject to easements, reservations and restrictions of record as the same may be in force and applicable.

For Title, see Deeds recorded with the Worcester District Registry of Deeds, Book 2626, Page 385 and Book 4544, Page 314. See also Worcester Probate Docket No. 00PR0508.

Lot 5 Wheeler Road, Grafton, Massachusetts

Remon D

Mary E. Campbell, P.C.
80 Worcester Street, Suite 6
North Grafton, MA 01536

MASSACHUSETTS EXCISE TAX
Worcester District ROD #20 001
Dste: 08/24/2006 02:53 PM
Ctrl# 055839 15662 Doc# 00127469
Fee: \$2,964.00 Cons: \$650,000.00

WITNESS my hand and seal this 2 day of August, 2006.

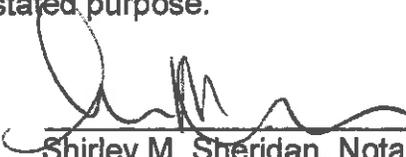

WALTER E. EKBLAW, Executor
of the Estate of Elsa M. Ekblaw

Commonwealth of Massachusetts

Worcester, ss

August 2, 2006

On this 2nd day of August, 2006, before me, the undersigned Notary Public, personally appeared **WALTER E. EKBLAW**, Executor of the Estate of Elsa M. Ekblaw, proved to me through satisfactory evidence of identification which was a Drivers License, to be the person whose name is signed on this document, and acknowledged to me that he signed it voluntarily for its stated purpose.


Shirley M. Sheridan, Notary Public
My Commission Expires: 03/06/09

Shirley M. Sheridan
NOTARY PUBLIC
My commission expires Mar. 6, 2009



ATTEST: WORC Anthony J. Vigliotti, Register

45/20
gr

QUITCLAIM DEED

106064

I, Peter J. Adams, of 100 Brigham Hill Road, Grafton, MA 01519, for consideration paid, and in full consideration of less than ONE HUNDRED DOLLARS AND NO CENTS (\$100.00), hereby grant to Peter J. Adams, Trustee of Ashlawn Realty Trust u/d/t June 9, 2000, recorded in the Worcester District Registry of Deeds, Book 22677, Page 369, with quitclaim covenants

See Exhibit "A" for legal description

Containing approximately 8.23 acres, more or less.

BEING the same premises conveyed to the grantor by deed recorded in Worcester District Registry of Deeds ~~with a separate instrument # _____~~

WITNESS MY HAND AND SEAL THIS 18th DAY OF JUNE, 2001.

Peter J. Adams
Peter J. Adams

COMMONWEALTH OF MASSACHUSETTS

WORCESTER, SS.

JUNE 18th, 2001

Then personally appeared the above named Peter J. Adams and acknowledged the foregoing instrument to be his free act and deed before me.

Peter L. Schofield
Notary Public: Peter L. Schofield
My Commission Expires: 6/12/03

Seal

Brigham Hill Rd Grafton, MA,

01 JUL 20 AM 9:42

Return to:
SCHOFIELD LAW OFFICES, P.C.
10 GRAFTON COMMON, SUITE 2
P.O. BOX 473
GRAFTON, MA 01519

EXHIBIT "A"

A certain tract of land located easterly of said Brigham Hill Road in said Grafton and being northerly and northeasterly of the above described tracts of land, and being shown as lot D on said plan, and more particularly bounded and described as follows:

BEGINNING at the southeasterly corner thereof at a drill hole in a wall at other land of the grantors and on the northerly side of a right of way shown on said plan extending to said Brigham Hill Road;

THENCE: N. 70° 45' 30" E. by said right of way and partly by a wall to a drill hole in a wall, a distance of 91.28 feet;

THENCE: N. 70° 59' E. 200.46 feet by a wall and other land of grantors to a drill hole in the wall;

THENCE: N. 23° 18' 20" W. 386.65 feet by a wall and other land of the grantors to a drill in the wall;

THENCE: N. 79° 34' 50" E. 148.78 feet by a wall and other land of the grantors to a drill hole in the wall;

THENCE: N. 6° 40' 30" W. 194.11 feet by a wall and other land of the grantors to a drill hole in the wall;

THENCE: N. 88° 53' W. 126.80 feet by a wall and land of one Ekblaw to a drill hole in the wall;

THENCE: N. 4° 01' 20" W. 442.17 feet by a wall and land of said Ekblaw to a drill hole in the wall;

THENCE: S. 70° 18' 30" W. 633.17 feet by a wall and land of one Whittall to a drill hole in the wall;

THENCE: S. 26° 01' 50" E. 203.23 feet by a wall and other land of the grantors to a drill hole in the wall;

THENCE: N. 61° 54' 20" E. 216.96 feet by a wall and other land of the grantors to a drill hole in the wall;

THENCE: S. 48° 10' 40" E. 79.57 feet by a wall and other land of the grantors to a drill hole in the wall;

THENCE: S. 12° 36' 50" E. by other land of the grantors and partly by a wall to the point of beginning.

CONTAINING 8.2 acres of land, more or less.

Together with the right to use in common with others, a right of way for the benefit of lots above described along the right of way shown on said plan from said lots to Brigham Hill Road for all purposes of ingress and egress.

ATTEST: WORC. Anthony J. Vigliotti, Register

106063

QUITCLAIM DEED

We, Ernest W. Adams and Mildred O. Adams, of 114 Millbury Street, Grafton, Worcester County, Massachusetts, being married, for consideration paid, and in full consideration of less than ONE HUNDRED DOLLARS AND NO CENTS (\$100.00), hereby grants to Peter J. Adams of 100 Brigham Hill Road, Grafton, MA 01519 with quitclaim covenants

See Exhibit "A" for legal description

Containing approximately 8.23 acres, more or less.

BEING a portion of the premises conveyed to the grantors by deed recorded in Worcester District Registry of Deeds Book 3295, Page 555.

THIS CONVEYANCE CREATED NO NEW BOUNDARIES.
WITNESS OUR HANDS AND SEALS THIS 18TH DAY OF JUNE, 2001.

Ernest W. Adams
Ernest W. Adams

Mildred O. Adams
Mildred O. Adams

COMMONWEALTH OF MASSACHUSETTS

WORCESTER, SS.

JUNE 18, 2001

Then personally appeared the above named Ernest W. Adams and Mildred O. Adams and acknowledged the foregoing instrument to be their free act and deed before me.

[Signature]
Notary Public:
My Commission Expires:
June 14, 2005

01 JUL 20 AM 9:42

Seal

Return to:

WINDFIELD LAW OFFICES, P.C.
10 GRAFTON COMMON, SUITE 2
P.O. BOX 473
GRAFTON, MA 01519

Brigham Hill Rd Grafton Ma.

BK 24455 PG 284
EXHIBIT "A"

A certain tract of land located easterly of said Brigham Hill Road in said Grafton and being northerly and northeasterly of the above described tracts of land, and being shown as lot D on said plan, and more particularly bounded and described as follows:

- BEGINNING** at the southeasterly corner thereof at a drill hole in a wall at other land of the grantors and on the northerly side of a right of way shown on said plan extending to said Brigham Hill Road;
- THENCE:** N. 70° 45' 30" E. by said right of way and partly by a wall to a drill hole in a wall, a distance of 91.28 feet;
- THENCE:** N. 70° 59' E. 200.46 feet by a wall and other land of grantors to a drill hole in the wall;
- THENCE:** N. 23° 18' 20" W. 386.65 feet by a wall and other land of the grantors to a drill in the wall;
- THENCE:** N. 79° 34' 50" E. 148.78 feet by a wall and other land of the grantors to a drill hole in the wall;
- THENCE:** N. 6° 40' 30" W. 194.11 feet by a wall and other land of the grantors to a drill hole in the wall;
- THENCE:** N. 88° 53' W. 126.80 feet by a wall and land of one Ekblaw to a drill hole in the wall;
- THENCE:** N. 4° 01' 20" W. 442.17 feet by a wall and land of said Ekblaw to a drill hole in the wall;
- THENCE:** S. 70° 18' 30" W. 633.17 feet by a wall and land of one Whittall to a drill hole in the wall;
- THENCE:** S. 26° 01' 50" E. 203.23 feet by a wall and other land of the grantors to a drill hole in the wall;
- THENCE:** N. 61° 54' 20" E. 216.96 feet by a wall and other land of the grantors to a drill hole in the wall;
- THENCE:** S. 48° 10' 40" E. 79.57 feet by a wall and other land of the grantors to a drill hole in the wall;
- THENCE:** S. 12° 36' 50" E. by other land of the grantors and partly by a wall to the point of beginning.

CONTAINING 8.2 acres of land, more or less.

Together with the right to use in common with others, a right of way for the benefit of lots above described along the right of way shown on said plan from said lots to Brigham Hill Road for all purposes of ingress and egress.

ATTEST: WORC. Anthony J. Vigliotti, Register

D **The Commonwealth of Massachusetts**

William Francis Galvin
Secretary of the Commonwealth
One Ashburton Place, Room 1717, Boston, Massachusetts 02108-1512

Limited Liability Company
Certificate of Organization
(General Laws Chapter 156C, Section 12)

Federal Identification No.: XXXXXXXXXXXXXXXXXXXX

(1) The exact name of the limited liability company:

Fieldstone Realty, LLC

(2) The street address of the office in the commonwealth at which its records will be maintained:

100 Brigham Hill Road
Grafton, MA 01519

(3) The general character of the business:

The general character of the business of the limited liability company is (i) to engage in real estate acquisition, management, development, leasing, and lending, (ii) to engage in any activities directly or indirectly related or incidental thereto, and (iii) to engage in any lawful act or activity, and to exercise any powers, permitted to limited liability companies organized under the laws of the Commonwealth of Massachusetts.

(4) Latest date of dissolution, if specified: none specified.

(5) The name and street address, of the resident agent in the commonwealth:

NAME	ADDRESS
Peter J. Adams	100 Brigham Hill Road Grafton, MA 01519

(6) The name and business address, if different from office location, of each manager, if any:

NAME	ADDRESS
Peter J. Adams	

(7) The name and business address, if different from office location, of each person in addition to manager(s) authorized to execute documents filed with the Corporations Division, and at least one person shall be named if there are no managers:

NAME ADDRESS

(8) The name and business address, if different from office location, of each person authorized to execute, acknowledge, deliver and record any recordable instrument purporting to affect an interest in real property recorded with a registry of deeds or district office of the land court:

NAME ADDRESS

Peter J. Adams

(9) Additional matters:

Fieldstone Realty, LLC

Signed by (by at least one authorized signatory): Peter J. Adams
Peter J. Adams, Manager/Authorized Signatory

Consent of resident agent:
I, Peter J. Adams // Peter J. Adams
resident agent of the above limited liability company, consent to my appointment as resident agent pursuant to G.L. c 156C § 12^(a)

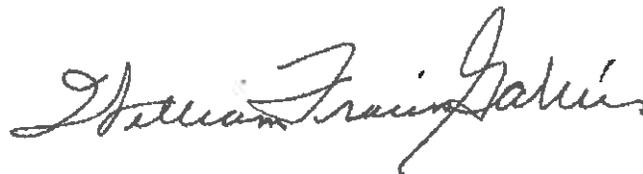
**or attach resident agent's consent hereto.*

THE COMMONWEALTH OF MASSACHUSETTS

I hereby certify that, upon examination of this document, duly submitted to me, it appears that the provisions of the General Laws relative to corporations have been complied with, and I hereby approve said articles; and the filing fee having been paid, said articles are

deemed to have been filed with me on:

November 04, 2015 01:10 PM

A handwritten signature in cursive script that reads "William Francis Galvin". The signature is written in black ink and is centered on the page.

WILLIAM FRANCIS GALVIN

Secretary of the Commonwealth

FIELDSTONE REALTY, LLC
OPERATING AGREEMENT

This Operating Agreement (this "Agreement") is entered into as of November 4, 2015 by Peter J. Adams (the "Original Member"), for the purpose of adopting an operating agreement for Fieldstone Realty, LLC, a limited liability company (the "LLC") organized pursuant to the provisions of the Massachusetts Limited Liability Company Act (the "Act"). This Agreement sets forth the understanding by the Original Member concerning, among other things, its rights and duties with respect to the LLC.

TERMS AND CONDITIONS

Section 1. **Formation of the LLC; Original Member.**

- 1.1. **Effective Date of Agreement; Formation of LLC.** This Agreement is effective as of November 4, 2015 (the "Effective Date"), the date which the Original Member delivered to the Secretary of the Commonwealth of Massachusetts for filing a Certificate of Organization (the "Certificate") to organize and form the LLC.
- 1.2. **Admission of Original Member.** Immediately upon the formation of the LLC, the only Member shall be the Original Member.

Section 2. **Name of LLC; Purpose and Powers, etc.**

- 2.1. **LLC Name, Purpose, etc.** The business and affairs of the LLC shall be conducted solely under the name set forth in the Certificate, and its registered agent, registered office, duration and form of management shall be solely as set forth therein. The purpose and business of the LLC is (i) to engage in real estate acquisition, management, development, leasing, and lending, (ii) to engage in any activities directly or indirectly related or incidental thereto, and (iii) to engage in any lawful act or activity, and to exercise any powers, permitted to limited liability companies organized under the laws of the Commonwealth of Massachusetts (the "Business"). In furtherance of its purpose, the LLC shall have all of the powers necessary or desirable to carry out the purposes of the LLC.
- 2.2. **LLC Powers.** The LLC shall have all powers identified in the Act.

Section 3. **Fiscal Year.** The fiscal year of the LLC shall be the calendar year.

Section 4. **Capital Contributions.** Promptly after the formation of the LLC, the Original Member contributed the sum of \$1,000 in cash or property to the LLC. No Member of the LLC shall be entitled to interest on any contribution to the LLC. No Member shall be entitled to the return of any contribution except in connection with the LLC's dissolution. No Member shall be required to make additional contributions to the LLC without the consent of all Members.

Section 5. Allocations and Distributions; Draws.

5.1. Profits and Losses, Distributions. Until the admission of additional Members, the Original Member shall be entitled to all allocations of LLC profits and losses and all distributions as the Manager shall determine from time to time. Upon the admission of any additional Members, each Member shall be entitled to allocations of LLC profits and losses and to allocations of distributions of LLC assets pro rata in accordance with his, her or its Percentage Interest in the LLC. As used in this Agreement, "Percentage Interest" shall mean and refer to a Member's ownership interest in the LLC, including in its profits and losses, governance of the LLC, and distributions of the LLC's assets. The Percentage Interest of each Member shall be the percentage set forth opposite such Member's name on the last page of this Agreement, as the same may be amended from time to time. The combined Percentage Interest of all Members shall at all times equal 100%.

Section 6. Management of LLC.

- 6.1. Participation in LLC Management. The original manager of the LLC shall be Peter J. Adams (the "Manager"). In the event the original Manager shall cease for any reason to serve, a successor Manager or Managers shall be appointed by Consent of the Members. As used in this Agreement, "Consent of the Members" shall mean the formal vote or written consent of those Members holding a majority in interest of the Percentage Interests.
- 6.2. Allocation of Votes. To the extent expressly required by the Act, the Certificate or this Agreement, each Member shall have the right to vote on an LLC matter in accordance with his, her or its Percentage Interest in the LLC.
- 6.3. Voting Requirements. Except to the extent a matter is subject to the Consent of the Members by this Agreement, the Certificate or the Act, each LLC matter shall be decided exclusively by the Manager.
- 6.4. Agency. The Manager shall have the power, right and authority to act as agent for the LLC on all LLC matters. The business and affairs of the LLC shall be managed by its Manager. Except as otherwise required by this Agreement, the Certificate or the Act, the Manager shall have the sole and exclusive right to manage and control the business, affairs and properties of the LLC, to make all decisions regarding those matters and to perform any and all other acts or activities customary or incident to the management of the LLC's Business.

6.5. Limited Liability. No person who is a Manager or Member of the LLC shall be personally liable to any other person for any debt, obligation, or liability of the LLC, whether that liability or obligation arises in contract, tort, or otherwise, solely by reason of being a Manager or Member.

Section 7. Requirement of Consent for Transfers of LLC Memberships and Interest; Pledges, etc.; Admission of New Members.

7.1. Transfers of Memberships and LLC Interests. Except with the Consent of the Members, no Member shall transfer, in whole or in part, his, her or its Percentage Interest or any management right or other right or interest of the Member in the LLC.

7.2. Pledges. Except with the Consent of the Members, no Member shall pledge, in whole or in part, his, her or its Percentage Interest or any management right or other right or interest of the Member in the LLC.

7.3. Admission of New Members. Except with the Consent of the Members, no person or entity shall be admitted as a new Member of the LLC. Notwithstanding the preceding sentence, if, at the time of his or her death, a Member is the only Member of the LLC, such Member's estate shall automatically be admitted as a Member of the LLC.

Section 8. Records and Reports.

8.1. Books of Account. The LLC shall maintain proper books of account and tax records in a good and business-like manner, as required by all applicable federal income tax regulations and with generally accepted accounting practices as applicable.

8.2. Annual Reports Relating to Tax Return Preparation. Within 90 days after the close of the fiscal year of the LLC, the LLC shall prepare and deliver to the Members written reports which shall contain all information in the possession of the LLC that is reasonably necessary to enable the Members to prepare their federal income tax returns.

Section 9. Dissolution. The LLC shall not dissolve upon the death or dissolution of any Member.

Section 10. Term, etc.

10.1. Term and Termination. The term of this Agreement shall begin on the Effective Date and shall end upon the earlier of:

- (a) the date on which the LLC is terminated under this Agreement or under other applicable law; or
- (b) the date on which the Members, acting by Consent of the Members, agree to terminate it.

Section 11. Miscellaneous Provisions.

- 11.1. Entire Agreement. This Agreement contains the complete agreement of the membership of the LLC concerning its subject matter.
- 11.2. Amendments. No amendment of this Agreement or of the Certificate shall be valid except as authorized by Consent of the Members.
- 11.3. Applicability of the Act. Except as otherwise expressly provided in this Agreement and in the Certificate, all provisions of the Act as now in effect and as hereafter amended from time to time shall apply to the Agreement as if fully incorporated herein.
- 11.4. Notices. All notices under this Agreement shall be in writing and shall be deemed to have been duly given if personally delivered, sent by facsimile, sent by e-mail, sent by nationally recognized overnight courier or mailed by registered or certified mail with postage prepaid, return receipt requested, to the Members at their respective addresses as stated below. Any such notice shall be deemed to have been given and received (a) when delivered, if personally delivered; (b) when sent, if sent by facsimile or e-mail on that business day (or, if not sent on a business day, on the next business day after the date sent by telecopy); (c) on the next business day after dispatch, if sent by nationally recognized, overnight courier guaranteeing next business day delivery, and (d) on the third business day following the date on which the piece of mail containing such communication is posted, if sent by mail. A Member may change the Member's address for purposes of this Section 11.4 at any time upon reasonable notice to the other Members.
- 11.5. Governing Law. This Agreement shall be governed by the laws of the Commonwealth of Massachusetts without reference to conflict of law principles.
- 11.6. Captions. All captions in this Agreement are for convenience only and shall be deemed irrelevant in construing any of its provision.

~ SIGNATURES ON NEXT PAGE ~

In witness of their acceptance of the above terms and conditions, the Original Member and Manager have duly signed and dated this Operating Agreement of the date first above written as follows:

Original Member:

Percentage
Interest



Peter J. Adams

100%

Address: 100 Brigham Hill Road
Grafton, MA 01519

Manager:



Peter J. Adams

RECORDED

00 JUN 13 AM 10:48

ANTHONY J. LUTTI
REGISTER

D# 68224

ASHLAWN REALTY TRUST

DECLARATION OF TRUST

I, Peter J. Adams, hereby declare that I and my successors in interest will hold all Trust Property, in trust, as provided in this Declaration of Trust for the benefit of the Beneficiaries.

SECTION ONE

Name, Definition, Purpose, and Recording

1.1 Name. This Trust is to be known as the "Ashlawn Realty Trust," Peter J. Adams, Trustee, 100 Brigham Hill Road, Grafton, MA.

1.2 Definitions. As used in this Declaration of Trust each word or term contained in this Section 1.2 has the meaning stated immediately after it. Each definition applies equally to the singular and the plural forms of the word or term, and a word or term in one gender includes and applies to the other genders, unless the context requires otherwise.

Beneficial Interest. The proportionate interest of each Beneficiary in the Trust as listed on the Schedule of Beneficiaries.

Beneficiaries. The individuals or entities who may from time to time be listed on the Schedule of Beneficiaries and for whose benefit the Trust Property is held under this Trust.

Declaration of Trust. This Declaration of Trust, as it may be amended or restated from time to time.

Registry of Deeds. The Registry of Deeds or Registry District of the Land Court for each County or District in which any real property included in the Trust Property is located.

Schedule of Beneficiaries. The separate schedule filed with the Trustee, as amended from time to time, which lists the names of the Beneficiaries and their respective Beneficial Interests.

Termination Date. That date which is twenty (20) years after the date of death of the last surviving Trustee of the original Trustees named in this Declaration of Trust

Trust. The trust created by this Declaration of Trust.

Trust Property. All other property, real and personal, and the proceeds from any disposition of that property at any time held by the Trustee for the benefit of the Beneficiaries under this Trust

P.J.A.

Trustee. The individual or entity signing this Declaration of Trust and any successor acting as Trustee of this Trust.

1.3 Purpose. The purpose for which this Trust is formed is to hold record legal title to the Trust Property for the benefit of the Beneficiaries. The Trustee may not, except as specifically provided in this Declaration of Trust, engage in any function other than the holding of record legal title to the Trust Property and such functions as are necessarily incidental to that purpose. This Trust is intended to be a nominee trust and is not to be construed to be a Massachusetts Trust or any other type of business trust, an association in the nature of a corporation, or a partnership or joint venture between the Trustee and the Beneficiaries.

1.4 Recording. This Declaration of Trust and any amendments to this Declaration of Trust, as well as all certificates or other instruments required to be recorded or which the Trustee deems it desirable to record, are to be registered or recorded with each Registry of Deeds.

1.5 Governing Law. This Declaration of Trust is to be construed under the laws of the Commonwealth of Massachusetts.

SECTION TWO Beneficiaries

2.1 Beneficial interests. The original Beneficiaries are the persons or entities listed in the Schedule of Beneficiaries dated the same day as this Declaration of Trust and receipted by the Trustee. The Beneficial Interest of a Beneficiary in the Trust and the Trust Property is personal property and will pass upon the death of a Beneficiary or may be transferred by a Beneficiary as personal property and not as real property. No Beneficiary will have any legal or equitable interest as realty in any real estate which constitutes any part of the Trust Property or the right to compel partition. The death of a Beneficiary will not terminate the Trust nor affect, in any way, the powers of the Trustee.

2.2 The Beneficiaries have the right (i) to direct the Trustee to take any action with respect to the Trust Property, (ii) to manage and control the Trust Property through the Trustee, (iii) to receive all the income, profits and proceeds of the Property, (iv) to amend the Declaration of Trust, (v) to terminate the Trust and (vi) to remove any Trustee and appoint any one or more successor or additional Trustees. No Beneficiary has the authority to contract for or in the name of the Trustee or any other Beneficiary or to take any action with respect to the Trust Property other than through the Trustee. No Beneficiary will have any personal liability under any contract or undertaking by the Trustee, except in the case of the removal of a Trustee who is also a Beneficiary as provided in Section 4.3. Any action or direction required or permitted to be taken by the Beneficiaries is binding on all the Beneficiaries if joined in or assented to in writing by the holders of one hundred percent (100) of the Beneficial Interests. Any action or direction required or permitted by a Beneficiary may be by a power of attorney.

2.3 Trustee as Beneficiary. Any Trustee may also be a Beneficiary and exercise all of the rights of a Beneficiary with the same effect as if not a Trustee.

P.J.A.

2.4 Transfer of Beneficial Interest. The Trustee shall not be bound by any transfer of all or a part of a Beneficial Interest until the Trustee receives written notice and evidence satisfactory to the Trustee that the transfer has occurred. Upon receipt of that notice and evidence, the Trustee will make the appropriate change in the Schedule of Beneficiaries. In case of a collateral assignment of a Beneficial Interest, the Trustee will note the name of the assignee on the Schedule of Beneficiaries when satisfactory evidence of the assignment is furnished to the Trustee. Thereafter, the prior written consent of the collateral assignee will be required to effect any direction of the Beneficiary given to the Trustee.

SECTION THREE Power and Duties of Trustee

3.1 General. The Trustee will hold the Trust Property for the benefit of the Beneficiaries, and pay over the income, profits and proceeds according to the direction of the Beneficiaries as provided in Section 2.2. Without such direction, the Trustee will pay the income, profits and proceeds to the Beneficiaries in proportion to their Beneficial Interests.

3.2 Validity of Trustee's Actions. Any deed, option, mortgage or other instrument or agreement of any nature entered into by the Trustee will be valid notwithstanding the fact that (i) it is for less than adequate consideration, (ii) it is to or with the Trustee or person, firm or corporation related to or affiliated with the Trustee, or (iii) it extends beyond the term of the Trust.

3.3 Powers. Except in case of the termination of this Trust, the Trustee will have power to deal with the Trust Property only as directed by the Beneficiaries. When and to the extent specifically directed by the Beneficiaries as provided in Section 2.2, the Trustee will have the following powers:

3.3.1 To acquire property, real or personal, or interests in property, or options to acquire property;

3.3.2 To sell, grant options to purchase, assign or mortgage, or to transfer or dispose of in any other manner, all or any part of or interest in the Trust Property, and as landlord or tenant execute and deliver leases and subleases;

3.3.3 To borrow money on behalf of the Beneficiaries and to execute and deliver notes evidencing such borrowing;

3.3.4 To grant or acquire rights or easements and enter into agreements of any kind with respect to the Trust Property;

3.3.5 To endorse and deposit checks in an account for the benefit of the Beneficiaries.

3.4 Duty of Trustee to Convert Property. On the Termination Date, if the Trust Property consists of any real property, after reasonable notice to the Beneficiaries and in the absence of a

A.A.

direction to the contrary, the Trustee is to sell such real property at public or private sale and distribute the proceeds, together with the remaining Trust Property, among the Beneficiaries in proportion to their Beneficial Interests.

SECTION FOUR
Trustee Provisions

4.1 **Number Required.** If there are two Trustees, any one Trustee may exercise all powers and discharge all duties of the Trustee under this Declaration of Trust. If there are more than two Trustees, except as provided in Sections 4.3 and 4.4, any two Trustees may exercise all such powers and discharge all such duties.

4.2 **Resignation** Any Trustee may resign at any time by an instrument in writing signed and acknowledged by the Trustee and mailed or delivered to any remaining Trustee and to each Beneficiary, The resignation will be effective upon the later of the date specified in the instrument or the date of the recording of the instrument at the Registry of Deeds.

4.3 **Successor Trustee.** Succeeding or additional Trustees may be appointed by an instrument signed by all of the Beneficiaries. Any Trustee may be removed by an instrument signed by all of the Beneficiaries other than the Trustee if the Trustee is also a Beneficiary. In each case a certificate signed and acknowledged by any remaining Trustee naming the Trustee or Trustees appointed or removed and, in the case of an appointment, the written acceptance of the Trustee or Trustees appointed, must be recorded at the Registry of Deeds. Upon the recording of such certificate at the Registry of Deeds, each Successor or additional Trustee will have all the rights and powers as if named an original Trustee, and will be vested with title to the Trust Property, jointly with every other Trustee, without the necessity of any act of transfer.

4.4 **Vacancy.** If there is no Trustee, either through the death or resignation of a sole Trustee without prior appointment of a Successor Trustee or for any other cause a person purporting to be a Successor Trustee may record at the Registry of Deeds an affidavit, under penalties of perjury, stating he or she has been appointed Trustee by all of the Beneficiaries. The affidavit, when recorded together with an attorney's certificate as provided under M.G.L. c.183 Section 5B stating that the attorney has knowledge of the affairs of the Trust and that the person signing the affidavit has been appointed a Trustee by all of the Beneficiaries, has the same effect as the recording of the Trustees' certificate provided in Section 4.3 above. Persons dealing with the Trust Property or the Trustee may always rely without further inquiry upon such an affidavit as to the matters stated therein. Notwithstanding the provisions of Section 4.1, if any vacancy in the office of Trustee occurs, however caused and for whatever duration, any remaining Trustee may continue to exercise and discharge all of the powers and duties of the Trustee.

4.5 **Bond and License.** No Trustee shall be required to furnish any bond. No license of any court shall be required in connection with any transaction entered into by the Trustee.

4.6 **Liability of Trustee.** No Trustee shall be liable for (i) any action taken at the direction of the Beneficiaries, (ii) any error of judgment, or (iii) any loss arising out of any act or omission in good

faith. A Trustee will be liable only for his own willful breach of trust. No Trustee shall be required to take any action which will, in the opinion of the Trustee, involve the Trustee in any personal liability or expense, unless first indemnified to his satisfaction. If the Trustee is at any time, claimed or held to be under any personal liability as Trustee for any reason, other than his own willful breach of trust the Beneficiaries, jointly and severally, will defend and indemnify the Trustee against all claims, losses and expenses relating to the liability.

4.7 Third Parties. No person dealing with the Trustee shall be under any obligation to see to the application of any money or property delivered to the Trustee, or to see that the terms and conditions of this Trust have been complied with or to inquire into the authority of the Trustee. Every instrument (including but not limited to deed, mortgage, lease, option, contract release, note, check, draft, security, assignment, endorsement or proxy), executed and every action taken by the person appearing from a certificate signed by the Trustee under oath or under the penalties of perjury or the records of the Registry of Deeds to be the Trustee will be conclusive evidence in favor of every person relying thereon or claiming thereunder that, at the time of the delivery of such instrument or the taking of such action, this Trust was validly existing, the execution and delivery of the instrument or the taking of the action was duly directed by the Beneficiaries as required by the terms of this Trust and such instrument or action is valid and legally enforceable. Any person dealing with the Trust Property or the Trustee may always rely, without further inquiry, on a certificate signed by a person claiming under oath, or under the penalties of perjury, to be the Trustee or appearing from the records of the Registry of Deeds to be the Trustee (i) as to who are the Trustees or the Beneficiaries, or (ii) as to the authority of the Trustee to act, or (iii) as to whether or not this Declaration of Trust has been terminated or amended, and, if amended, the provisions of such amendment, or (iv) as to the existence or non-existence of any fact which constitutes a condition precedent to any act by the Trustee or which is in any other manner germane to the affairs of the Trust.

4.8 Enforceability of Obligations. All contracts, obligations or undertakings by the Trustee must refer to this Declaration of Trust and are enforceable only against the Trustee, as Trustee and not individually, and against the Trust Property.

SECTION FIVE Termination

5.1 Termination This Trust may be terminated at any time by written notice of termination given to the Trustee by the Beneficiaries; provided that the termination will be effective only when a certificate to that effect is recorded at the Registry of Deeds. The Trust will terminate, in any event, on the Termination Date.

5.2 Distribution on Termination. Whenever this Trust terminates, the Beneficiaries may direct the Trustee to distribute all of the Trust Property, subject to any leases, mortgages, contracts or encumbrances on the Trust Property, to the Beneficiaries as tenants in common in proportion to their respective Beneficial interests or in such proportion as may be directed by the Beneficiaries. In the absence of such direction, the Trustee will sell the Trust Property and distribute the proceeds as provided in Section 3.4.

SECTION SIX
Amendments

6.1 Amendments. This Declaration of Trust may be amended or restated from time to time by a written instrument (i) signed by all of the Beneficiaries, and (ii) delivered to the Trustee, provided in each case that the amendment will not be effective until the instrument of amendment or a certificate stating in substance the terms of such amendment signed by the Trustee is recorded with the Registry of Deeds.

EXECUTED under seal as of June 9th, 2000.



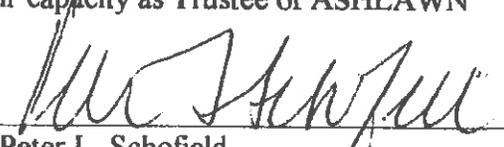
Peter J. Adams, Trustee

COMMONWEALTH OF MASSACHUSETTS

WORCESTER, SS.

JUNE 9th, 2000

Then personally appeared the above-named Peter J. Adams, Trustee, and acknowledged the foregoing instrument to be his free act and deed in their capacity as Trustee of ASHLAWN REALTY TRUST, before me



Peter L. Schofield
Notary Public
My commission expires: June 12, 2003

77703

ELMROCK REALTY TRUST
DECLARATION OF TRUST

Handwritten initials: JAB

99 MAY 17 PM 2:55

I, Peter J. Adams, hereby declare that I and my successors in interest will hold all Trust Property, in trust, as provided in this Declaration of Trust for the benefit of the Beneficiaries.

SECTION ONE

Name, Definition, Purpose, and Recording

1.1 Name. This Trust is to be known as the "Elmrock Realty Trust", Peter J. Adams, Trustee, 100 Brigham Hill Road, Grafton, MA.

1.2 Definitions. As used in this Declaration of Trust each word or term contained in this Section 1.2 has the meaning stated immediately after it. Each definition applies equally to the singular and the plural forms of the word or term, and a word or term in one gender includes and applies to the other genders, unless the context requires otherwise.

Beneficial Interest. The proportionate interest of each Beneficiary in the Trust as listed on the Schedule of Beneficiaries.

Beneficiaries. The individuals or entities who may from time to time be listed on the Schedule of Beneficiaries and for whose benefit the Trust Property is held under this Trust.

Declaration of Trust. This Declaration of Trust, as it may be amended or restated from time to time.

Registry of Deeds. The Registry of Deeds or Registry District of the Land Court for each County or District in which any real property included in the Trust Property is located.

Schedule of Beneficiaries. The separate schedule filed with the Trustee, as amended from time to time, which lists the names of the Beneficiaries and their respective Beneficial Interests.

Termination Date. That date which is twenty (20) years after the date of death of the last surviving Trustee of the original Trustees named in this Declaration of Trust

Trust. The trust created by this Declaration of Trust.

Trust Property. All other property, real and personal, and the proceeds from any disposition of that property at any time held by the Trustee for the benefit of the Beneficiaries under this Trust

Trustee. The individual or entity signing this Declaration of Trust and any successor acting as Trustee of this Trust.

1.3 Purpose. The purpose for which this Trust is formed is to hold record legal title to the Trust Property for the benefit of the Beneficiaries. The Trustee may not, except as specifically provided in this Declaration of Trust, engage in any function other than the holding of record legal title to the Trust Property and such functions as are necessarily incidental to that purpose. This

Handwritten initials: P.D.

Trust is intended to be a nominee trust and is not to be construed to be a Massachusetts Trust or any other type of business trust, an association in the nature of a corporation, or a partnership or joint venture between the Trustee and the Beneficiaries.

1.4 Recording. This Declaration of Trust and any amendments to this Declaration of Trust, as well as all certificates or other instruments required to be recorded or which the Trustee deems it desirable to record, are to be registered or recorded with each Registry of Deeds.

1.5 Governing Law. This Declaration of Trust is to be construed under the laws of the Commonwealth of Massachusetts.

SECTION TWO

Beneficiaries

2.1 Beneficial interests. The original Beneficiaries are the persons or entities listed in the Schedule of Beneficiaries dated the same day as this Declaration of Trust and receipted by the Trustee. The Beneficial Interest of a Beneficiary in the Trust and the Trust Property is personal property and will pass upon the death of a Beneficiary or may be transferred by a Beneficiary as personal property and not as real property. No Beneficiary will have any legal or equitable interest as realty in any real estate which constitutes any part of the Trust Property or the right to compel partition. The death of a Beneficiary will not terminate the Trust nor affect, in any way, the powers of the Trustee.

2.2 The Beneficiaries have the right (i) to direct the Trustee to take any action with respect to the Trust Property, (ii) to manage and control the Trust Property through the Trustee, (iii) to receive all the income, profits and proceeds of the Property, (iv) to amend the Declaration of Trust, (v) to terminate the Trust and (vi) to remove any Trustee and appoint any one or more successor or additional Trustees. No Beneficiary has the authority to contract for or in the name of the Trustee or any other Beneficiary or to take any action with respect to the Trust Property other than through the Trustee. No Beneficiary will have any personal liability under any contract or undertaking by the Trustee, except in the case of the removal of a Trustee who is also a Beneficiary as provided in Section 4.3. Any action or direction required or permitted to be taken by the Beneficiaries is binding on all the Beneficiaries if joined in or assented to in writing by the holders of one hundred percent (100) of the Beneficial Interests. Any action or direction required or permitted by a Beneficiary may be by a power of attorney.

2.3 Trustee as Beneficiary. Any Trustee may also be a Beneficiary and exercise all of the rights of a Beneficiary with the same effect as if not a Trustee.

2.4 Transfer of Beneficial Interest. The Trustee shall not be bound by any transfer of all or a part of a Beneficial Interest until the Trustee receives written notice and evidence satisfactory to the Trustee that the transfer has occurred. Upon receipt of that notice and evidence, the Trustee will make the appropriate change in the Schedule of Beneficiaries. In case of a collateral

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assignment of a Beneficial Interest, the Trustee will note the name of the assignee on the Schedule of Beneficiaries when satisfactory evidence of the assignment is furnished to the Trustee. Thereafter, the prior written consent of the collateral assignee will be required to effect any direction of the Beneficiary given to the Trustee.

SECTION THREE
Power and Duties of Trustee

3.1 **General.** The Trustee will hold the Trust Property for the benefit of the Beneficiaries, and pay over the income, profits and proceeds according to the direction of the Beneficiaries as provided in Section 2.2. Without such direction, the Trustee will pay the income, profits and proceeds to the Beneficiaries in proportion to their Beneficial Interests.

3.2 **Validity of Trustee's Actions.** Any deed, option, mortgage or other instrument or agreement of any nature entered into by the Trustee will be valid notwithstanding the fact that (i) it is for less than adequate consideration, (ii) it is to or with the Trustee or person, firm or corporation related to or affiliated with the Trustee, or (iii) it extends beyond the term of the Trust.

3.3 **Powers.** Except in case of the termination of this Trust, the Trustee will have power to deal with the Trust Property only as directed by the Beneficiaries. When and to the extent specifically directed by the Beneficiaries as provided in Section 2.2, the Trustee will have the following powers:

3.3.1

To acquire property, real or personal, or interests in property, or options to acquire property;

3.3.2

To sell, grant options to purchase, assign or mortgage, or to transfer or dispose of in any other manner, all or any part of or interest in the Trust Property, and as landlord or tenant execute and deliver leases and subleases;

3.3.3

To borrow money on behalf of the Beneficiaries and to execute and deliver notes evidencing such borrowing;

3.3.4

To grant or acquire rights or easements and enter into agreements of any kind with respect to the Trust Property;

3.3.5 To endorse and deposit checks in an account for the benefit of the Beneficiaries.

3.4 **Duty of Trustee to Convert Property.** On the Termination Date, if the Trust Property consists of any real property, after reasonable notice to the Beneficiaries and in the absence of a direction to the contrary, the Trustee is to sell such real property at public or private sale and

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distribute the proceeds, together with the remaining Trust Property, among the Beneficiaries in proportion to their Beneficial Interests.

SECTION FOUR

Trustee Provisions

4.1 Number Required. If there are two Trustees, any one Trustee may exercise all powers and discharge all duties of the Trustee under this Declaration of Trust. If there are more than two Trustees, except as provided in Sections 4.3 and 4.4, any two Trustees may exercise all such powers and discharge all such duties.

4.2 Resignation Any Trustee may resign at any time by an instrument in writing signed and acknowledged by the Trustee and mailed or delivered to any remaining Trustee and to each Beneficiary, The resignation will be effective upon the later of the date specified in the instrument or the date of the recording of the instrument at the Registry of Deeds.

4.3 Successor Trustee. Succeeding or additional Trustees may be appointed by an instrument signed by all of the Beneficiaries. Any Trustee may be removed by an instrument signed by all of the Beneficiaries other than the Trustee if the Trustee is also a Beneficiary. In each case a certificate signed and acknowledged by any remaining Trustee naming the Trustee or Trustees appointed or removed and, in the case of an appointment, the written acceptance of the Trustee or Trustees appointed, must be recorded at the Registry of Deeds. Upon the recording of such certificate at the Registry of Deeds, each Successor or additional Trustee will have all the rights and powers as if named an original Trustee, and will be vested with title to the Trust Property, jointly with every other Trustee, without the necessity of any act of transfer.

4.4 Vacancy. If there is no Trustee, either through the death or resignation of a sole Trustee without prior appointment of a Successor Trustee or for any other cause a person purporting to be a Successor Trustee may record at the Registry of Deeds an affidavit, under penalties of perjury, stating he or she has been appointed Trustee by all of the Beneficiaries. The affidavit, when recorded together with an attorney's certificate as provided under M.G.L. c.183 Section 5B stating that the attorney has knowledge of the affairs of the Trust and that the person signing the affidavit has been appointed a Trustee by all of the Beneficiaries, has the same effect as the recording of the Trustees' certificate provided in Section 4.3 above. Persons dealing with the Trust Property or the Trustee may always rely without further inquiry upon such an affidavit as to the matters stated therein. Notwithstanding the provisions of Section 4.1, if any vacancy in the office of Trustee occurs, however caused and for whatever duration, any remaining Trustee may continue to exercise and discharge all of the powers and duties of the Trustee.

4.5 Bond and License. No Trustee shall be required to furnish any bond. No license of any court shall be required in connection with any transaction entered into by the Trustee.

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4.6 Liability of Trustee. No Trustee shall be liable for (i) any action taken at the direction of the Beneficiaries, (ii) any error of judgment, or (iii) any loss arising out of any act or omission in good faith. A Trustee will be liable only for his own willful breach of trust. No Trustee shall be required to take any action which will, in the opinion of the Trustee, involve the Trustee in any personal liability or expense, unless first indemnified to his satisfaction. If the Trustee is at any time, claimed or held to be under any personal liability as Trustee for any reason, other than his own willful breach of trust the Beneficiaries, jointly and severally, will defend and indemnify the Trustee against all claims, losses and expenses relating to the liability.

4.7 Third Parties. No person dealing with the Trustee shall be under any obligation to see to the application of any money or property delivered to the Trustee, or to see that the terms and conditions of this Trust have been complied with or to inquire into the authority of the Trustee. Every instrument (including but not limited to deed, mortgage, lease, option, contract release, note, check, draft, security, assignment, endorsement or proxy), executed and every action taken by the person appearing from a certificate signed by the Trustee under oath or under the penalties of perjury or the records of the Registry of Deeds to be the Trustee will be conclusive evidence in favor of every person relying thereon or claiming thereunder that, at the time of the delivery of such instrument or the taking of such action, this Trust was validly existing, the execution and delivery of the instrument or the taking of the action was duly directed by the Beneficiaries as required by the terms of this Trust and such instrument or action is valid and legally enforceable. Any person dealing with the Trust Property or the Trustee may always rely, without further inquiry, on a certificate signed by a person claiming under oath, or under the penalties of perjury, to be the Trustee or appearing from the records of the Registry of Deeds to be the Trustee (i) as to who are the Trustees or the Beneficiaries, or (ii) as to the authority of the Trustee to act, or (iii) as to whether or not this Declaration of Trust has been terminated or amended, and, if amended, the provisions of such amendment, or (iv) as to the existence or non-existence of any fact which constitutes a condition precedent to any act by the Trustee or which is in any other manner germane to the affairs of the Trust.

4.8 Enforceability of Obligations. All contracts, obligations or undertakings by the Trustee must refer to this Declaration of Trust and are enforceable only against the Trustee, as Trustee and not individually, and against the Trust Property.

SECTION FIVE

Termination

5.1 Termination This Trust may be terminated at any time by written notice of termination given to the Trustee by the Beneficiaries; provided that the termination will be effective only when a certificate to that effect is recorded at the Registry of Deeds. The Trust will terminate, in any event, on the Termination Date.

5.2 Distribution on Termination. Whenever this Trust terminates, the Beneficiaries may direct the Trustee to distribute all of the Trust Property, subject to any leases, mortgages,

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contracts or encumbrances on the Trust Property, to the Beneficiaries as tenants in common in proportion to their respective Beneficial interests or in such proportion as may be directed by the Beneficiaries. In the absence of such direction, the Trustee will sell the Trust Property and distribute the proceeds as provided in Section 3.4.

SECTION SIX

Amendments

6.1 Amendments. This Declaration of Trust may be amended or restated from time to time by a written instrument (i) signed by all of the Beneficiaries, and (ii) delivered to the Trustee, provided in each case that the amendment will not be effective until the instrument of amendment or a certificate stating in substance the terms of such amendment signed by the Trustee is recorded with the Registry of Deeds.

EXECUTED under seal as of May 12th, 1999.

Peter J. Adams, Trustee
Peter J. Adams, Trustee

COMMONWEALTH OF MASSACHUSETTS

Worcester, ss.

May 12th, 1999

Then personally appeared the above-named Peter J. Adams, Trustee, and acknowledged the foregoing instrument to be his free act and deed in their capacity as Trustee of ELMROCK REALTY TRUST, before me

Peter L. Schofield
Peter L. Schofield
Notary Public
My commission expires: June 12, 2003

Department of Housing and Community Development
 Chapter 40B Subsidized Housing Inventory (SHI)
 as of December 5, 2014

Community	2010 Census Year Round Housing Units	Total Development Units	SHI Units	%
Abington	6,364	511	478	7.5%
Acton	8,475	1,107	551	6.5%
Acushnet	4,097	133	103	2.5%
Adams	4,337	321	321	7.4%
Agawam	12,090	499	467	3.9%
Alford	231	0	0	0.0%
Amesbury	7,041	869	505	7.2%
Amherst	9,621	1,081	1,034	10.7%
Andover	12,324	1,428	1,145	9.3%
Aquinnah	158	41	41	25.9%
Arlington	19,881	1,429	1,121	5.6%
Ashburnham	2,272	147	32	1.4%
Ashby	1,150	0	0	0.0%
Ashfield	793	2	2	0.3%
Ashland	6,581	346	241	3.7%
Athol	5,148	247	247	4.8%
Attleboro	17,978	1,177	1,177	6.5%
Auburn	6,808	242	242	3.6%
Avon	1,763	74	74	4.2%
Ayer	3,440	456	290	8.4%
Barnstable	20,550	1,832	1,373	6.7%
Barre	2,164	83	83	3.8%
Becket	838	0	0	0.0%
Bedford	5,322	1,087	902	16.9%
Belchertown	5,771	398	372	6.4%
Bellingham	6,341	702	537	8.5%
Belmont	10,117	392	380	3.8%
Berkley	2,169	139	24	1.1%
Berlin	1,183	222	65	5.5%
Bernardston	930	24	24	2.6%
Beverly	16,522	2,142	1,946	11.8%
Billerica	14,442	1,487	857	5.9%
Blackstone	3,606	165	123	3.4%
Blandford	516	1	1	0.2%
Bolton	1,729	192	64	3.7%
Boston	269,482	52,453	49,324	18.3%
Bourne	8,584	1,227	596	6.9%
Boxborough	2,062	327	24	1.2%
Boxford	2,730	64	23	0.8%

Boylston	1,765	26	24	1.4%
Braintree	14,260	1,636	1,098	7.7%
Brewster	4,803	293	246	5.1%
Bridgewater	8,288	579	524	6.3%
Brimfield	1,491	80	80	5.4%
Brockton	35,514	4,485	4,485	12.6%
Brookfield	1,452	47	41	2.8%
Brookline	26,201	2,634	2,111	8.1%
Buckland	866	3	3	0.3%
Burlington	9,627	1,395	993	10.3%
Cambridge	46,690	7,174	7,084	15.2%
Canton	8,710	1,180	1,075	12.3%
Carlisle	1,740	52	46	2.6%
Carver	4,514	146	146	3.2%
Charlemont	615	3	3	0.5%
Charlton	4,774	83	83	1.7%
Chatham	3,460	176	170	4.9%
Chelmsford	13,741	1,545	1,169	8.5%
Chelsea	12,592	2,130	2,125	16.9%
Cheshire	1,481	0	0	0.0%
Chester	585	22	22	3.8%
Chesterfield	524	17	17	3.2%
Chicopee	25,074	2,588	2,551	10.2%
Chilmark	418	3	3	0.7%
Clarksburg	706	8	8	1.1%
Clinton	6,375	549	549	8.6%
Cohasset	2,898	325	311	10.7%
Colrain	731	0	0	0.0%
Concord	6,852	766	710	10.4%
Conway	803	0	0	0.0%
Cummington	426	16	16	3.8%
Dalton	2,860	158	158	5.5%
Danvers	11,071	1,472	1,109	10.0%
Dartmouth	11,775	959	929	7.9%
Dedham	10,115	1,152	1,107	10.9%
Deerfield	2,154	33	33	1.5%
Dennis	7,653	349	335	4.4%
Dighton	2,568	417	115	4.5%
Douglas	3,147	183	140	4.4%
Dover	1,950	69	17	0.9%
Dracut	11,318	1,004	719	6.4%
Dudley	4,360	104	104	2.4%
Dunstable	1,085	0	0	0.0%
Duxbury	5,532	441	196	3.5%
East Bridgewater	4,897	230	173	3.5%
East Brookfield	888	0	0	0.0%
East Longmeadow	6,072	504	436	7.2%

Eastham	2,632	59	50	1.9%
Easthampton	7,567	505	449	5.9%
Easton	8,105	629	531	6.6%
Edgartown	1,962	94	89	4.5%
Egremont	596	0	0	0.0%
Erving	778	0	0	0.0%
Essex	1,477	40	40	2.7%
Everett	16,691	1,314	1,314	7.9%
Fairhaven	7,003	473	473	6.8%
Fall River	42,650	4,927	4,831	11.3%
Falmouth	14,870	1,231	963	6.5%
Fitchburg	17,058	1,656	1,655	9.7%
Florida	335	0	0	0.0%
Foxborough	6,853	621	611	8.9%
Framingham	27,443	2,870	2,870	10.5%
Franklin	11,350	1,543	1,078	9.5%
Freetown	3,263	98	80	2.5%
Gardner	9,064	1,297	1,297	14.3%
Georgetown	3,031	354	354	11.7%
Gill	591	24	24	4.1%
Gloucester	13,270	986	951	7.2%
Goshen	440	6	6	1.4%
Gosnold	41	0	0	0.0%
Grafton	7,160	642	325	4.5%
Granby	2,451	66	66	2.7%
Granville	630	3	3	0.5%
Great Barrington	3,072	316	244	7.9%
Greenfield	8,325	1,160	1,143	13.7%
Groton	3,930	378	212	5.4%
Groveland	2,423	137	80	3.3%
Hadley	2,200	285	285	13.0%
Halifax	2,971	28	28	0.9%
Hamilton	2,783	124	84	3.0%
Hampden	1,941	60	60	3.1%
Hancock	326	0	0	0.0%
Hanover	4,832	455	455	9.4%
Hanson	3,572	270	148	4.1%
Hardwick	1,185	22	22	1.9%
Harvard	1,982	279	110	5.5%
Harwich	6,121	333	333	5.4%
Hatfield	1,549	47	47	3.0%
Haverhill	25,557	2,694	2,465	9.6%
Hawley	137	0	0	0.0%
Heath	334	0	0	0.0%
Hingham	8,841	2,161	561	6.3%
Hinsdale	918	0	0	0.0%
Holbrook	4,262	439	439	10.3%

Holden	6,624	507	393	5.9%
Holland	1,051	19	19	1.8%
Holliston	5,077	332	225	4.4%
Holyoke	16,320	3,411	3,368	20.6%
Hopedale	2,278	108	108	4.7%
Hopkinton	5,087	558	439	8.6%
Hubbardston	1,627	49	49	3.0%
Hudson	7,962	1,089	918	11.5%
Hull	4,964	93	93	1.9%
Huntington	919	47	47	5.1%
Ipswich	5,735	520	494	8.6%
Kingston	4,881	356	179	3.7%
Lakeville	3,852	572	256	6.6%
Lancaster	2,544	207	124	4.9%
Lanesborough	1,365	28	28	2.1%
Lawrence	27,092	3,926	3,907	14.4%
Lee	2,702	173	176	6.5%
Leicester	4,231	163	163	3.9%
Lenox	2,473	178	178	7.2%
Leominster	17,805	1,479	1,442	8.1%
Leverett	792	2	2	0.3%
Lexington	11,946	1,510	1,329	11.1%
Leyden	300	0	0	0.0%
Lincoln	2,153	310	238	11.2%
Littleton	3,443	643	431	12.5%
Longmeadow	5,874	267	267	4.5%
Lowell	41,308	5,250	5,215	12.6%
Ludlow	8,337	187	187	2.2%
Lunenburg	4,037	164	164	4.1%
Lynn	35,701	4,452	4,451	12.5%
Lynnfield	4,319	704	491	11.4%
Malden	25,122	2,628	2,562	10.2%
Manchester	2,275	122	110	4.8%
Mansfield	8,725	1,042	946	10.8%
Marblehead	8,528	399	333	3.9%
Marion	2,014	204	155	7.7%
Marlborough	16,347	1,728	1,660	10.2%
Marshfield	9,852	753	550	5.6%
Mashpee	6,473	314	298	4.6%
Mattapoissett	2,626	71	71	2.7%
Maynard	4,430	387	369	8.3%
Medfield	4,220	209	191	4.5%
Medford	23,968	1,685	1,647	6.9%
Medway	4,603	285	233	5.1%
Melrose	11,714	1,209	892	7.6%
Mendon	2,072	77	40	1.9%
Merrimac	2,527	397	141	5.6%

Methuen	18,268	1,938	1,649	9.0%
Middleborough	8,921	928	509	5.7%
Middlefield	230	4	4	1.7%
Middleton	3,011	173	151	5.0%
Milford	11,379	980	718	6.3%
Millbury	5,592	244	221	4.0%
Millis	3,148	184	121	3.8%
Millville	1,157	26	26	2.2%
Milton	9,641	733	477	4.9%
Monroe	64	0	0	0.0%
Monson	3,406	152	152	4.5%
Montague	3,926	423	391	10.0%
Monterey	465	0	0	0.0%
Montgomery	337	0	0	0.0%
Mount Washington	80	0	0	0.0%
Nahant	1,612	48	48	3.0%
Nantucket	4,896	179	121	2.5%
Natick	14,052	1,672	1,442	10.3%
Needham	11,047	969	838	7.6%
New Ashford	104	0	0	0.0%
New Bedford	42,816	5,155	5,124	12.0%
New Braintree	386	0	0	0.0%
New Marlborough	692	0	0	0.0%
New Salem	433	0	0	0.0%
Newbury	2,699	94	94	3.5%
Newburyport	8,015	720	606	7.6%
Newton	32,346	2,515	2,438	7.5%
Norfolk	3,112	144	111	3.6%
North Adams	6,681	886	880	13.2%
North Andover	10,902	1,393	932	8.5%
North Attleborough	11,553	308	296	2.6%
North Brookfield	2,014	142	142	7.1%
North Reading	5,597	645	533	9.5%
Northampton	12,604	1,586	1,521	12.1%
Northborough	5,297	718	605	11.4%
Northbridge	6,144	470	455	7.4%
Northfield	1,290	27	27	2.1%
Norton	6,707	898	588	8.8%
Norwell	3,652	426	271	7.4%
Norwood	12,441	992	980	7.9%
Oak Bluffs	2,138	158	146	6.8%
Oakham	702	0	0	0.0%
Orange	3,461	431	431	12.5%
Orleans	3,290	337	307	9.3%
Otis	763	0	0	0.0%
Oxford	5,520	404	404	7.3%
Palmer	5,495	329	284	5.2%

Paxton	1,590	62	62	3.9%
Peabody	22,135	2,146	2,031	9.2%
Pelham	564	4	4	0.7%
Pembroke	6,477	807	625	9.6%
Pepperell	4,335	197	129	3.0%
Peru	354	0	0	0.0%
Petersham	525	0	0	0.0%
Phillipston	658	11	11	1.7%
Pittsfield	21,031	2,078	1,957	9.3%
Plainfield	283	0	0	0.0%
Plainville	3,459	209	175	5.1%
Plymouth	22,285	840	692	3.1%
Plympton	1,039	63	51	4.9%
Princeton	1,324	21	21	1.6%
Provincetown	2,122	210	169	8.0%
Quincy	42,547	4,077	4,077	9.6%
Randolph	11,980	1,279	1,279	10.7%
Raynham	5,052	604	489	9.7%
Reading	9,584	1,137	742	7.7%
Rehoboth	4,252	95	23	0.5%
Revere	21,956	1,769	1,759	8.0%
Richmond	706	3	3	0.4%
Rochester	1,865	8	8	0.4%
Rockland	7,030	453	407	5.8%
Rockport	3,460	135	135	3.9%
Rowe	177	0	0	0.0%
Rowley	2,226	179	94	4.2%
Royalston	523	3	3	0.6%
Russell	687	13	13	1.9%
Rutland	2,913	81	81	2.8%
Salem	18,998	2,350	2,348	12.4%
Salisbury	3,842	555	342	8.9%
Sandisfield	401	0	0	0.0%
Sandwich	8,183	566	287	3.5%
Saugus	10,754	825	749	7.0%
Savoy	318	0	0	0.0%
Scituate	7,163	355	310	4.3%
Seekonk	5,272	88	84	1.6%
Sharon	6,413	472	472	7.4%
Sheffield	1,507	30	30	2.0%
Shelburne	893	51	51	5.7%
Sherborn	1,479	41	34	2.3%
Shirley	2,417	60	60	2.5%
Shrewsbury	13,919	957	860	6.2%
Shutesbury	758	2	2	0.3%
Somerset	7,335	271	271	3.7%
Somerville	33,632	3,270	3,258	9.7%

South Hadley	7,091	396	396	5.6%
Southampton	2,310	44	44	1.9%
Southborough	3,433	610	286	8.3%
Southbridge	7,517	490	490	6.5%
Southwick	3,852	177	173	4.5%
Spencer	5,137	268	267	5.2%
Springfield	61,556	10,247	9,970	16.2%
Sterling	2,918	269	68	2.3%
Stockbridge	1,051	111	111	10.6%
Stoneham	9,399	501	495	5.3%
Stoughton	10,742	1,535	1,207	11.2%
Stow	2,500	331	179	7.2%
Sturbridge	3,759	260	209	5.6%
Sudbury	5,921	575	354	6.0%
Sunderland	1,718	8	8	0.5%
Sutton	3,324	176	42	1.3%
Swampscott	5,795	218	212	3.7%
Swansea	6,290	247	236	3.8%
Taunton	23,844	1,844	1,650	6.9%
Templeton	3,014	476	198	6.6%
Tewksbury	10,803	1,306	1,037	9.6%
Tisbury	1,965	123	109	5.5%
Tolland	222	0	0	0.0%
Topsfield	2,157	164	146	6.8%
Townsend	3,356	214	150	4.5%
Truro	1,090	27	27	2.5%
Tyngsborough	4,166	638	340	8.2%
Tyringham	149	0	0	0.0%
Upton	2,820	223	178	6.3%
Uxbridge	5,284	427	257	4.9%
Wakefield	10,459	1,059	694	6.6%
Wales	772	55	55	7.1%
Walpole	8,984	470	470	5.2%
Waltham	24,805	2,253	1,785	7.2%
Ware	4,539	425	425	9.4%
Wareham	9,880	889	759	7.7%
Warren	2,202	108	108	4.9%
Warwick	363	0	0	0.0%
Washington	235	0	0	0.0%
Watertown	15,521	1,219	1,000	6.4%
Wayland	4,957	362	200	4.0%
Webster	7,788	666	666	8.6%
Wellesley	9,090	597	561	6.2%
Wellfleet	1,550	34	34	2.2%
Wendell	419	5	5	1.2%
Wenham	1,404	190	122	8.7%
West Boylston	2,729	429	136	5.0%

West Bridgewater	2,658	173	119	4.5%
West Brookfield	1,578	57	57	3.6%
West Newbury	1,558	86	34	2.2%
West Springfield	12,629	440	440	3.5%
West Stockbridge	645	0	0	0.0%
West Tisbury	1,253	38	23	1.8%
Westborough	7,304	718	668	9.1%
Westfield	16,001	1,138	1,138	7.1%
Westford	7,671	987	575	7.5%
Westhampton	635	10	10	1.6%
Westminster	2,826	274	87	3.1%
Weston	3,952	252	142	3.6%
Westport	6,417	449	222	3.5%
Westwood	5,389	611	493	9.1%
Weymouth	23,337	1,919	1,895	8.1%
Whately	654	2	2	0.3%
Whitman	5,513	218	218	4.0%
Wilbraham	5,442	254	253	4.6%
Williamsburg	1,165	51	51	4.4%
Williamstown	2,805	148	148	5.3%
Wilmington	7,788	1,048	820	10.5%
Winchendon	4,088	345	345	8.4%
Winchester	7,920	199	152	1.9%
Windsor	387	0	0	0.0%
Winthrop	8,253	637	637	7.7%
Woburn	16,237	1,318	1,150	7.1%
Worcester	74,383	9,983	9,971	13.4%
Worthington	553	22	22	4.0%
Wrentham	3,821	269	165	4.3%
Yarmouth	12,037	625	518	4.3%
Totals	2,692,186	282,268	250,863	9.3%

*This data is derived from Information provided to the Department of Housing and Community Development (DHCD) by individual communities and is subject to change as new information is obtained and use restrictions expire.

REGULATORY AND USE AGREEMENT

[Rental]

***For Comprehensive Permit Projects in Which Funding is Provided
By Other Than a State Agency***

This Regulatory and Use Agreement (this "Agreement") is made this [] day of [], 20[], by and between the Massachusetts Housing Finance Agency acting as Subsidizing Agency (the "Subsidizing Agency"), as defined under the provisions of 760 CMR 56.02, on behalf of the Department of Housing and Community Development ("DHCD"), and [], a Massachusetts [] having a mailing address at [], and its successors and assigns (the "Developer").

RECITALS

WHEREAS, the Developer intends to construct a housing development known as [] at a []-acre site located at [] in the [City/Town] of [], Massachusetts (the "Municipality"), more particularly described in Exhibit A attached hereto and made a part hereof (the "Development"); and

WHEREAS, DHCD has promulgated Regulations at 760 CMR 56.00 (as may be amended from time to time, the "Regulations") relating to the issuance of comprehensive permits under Chapter 40B, Sections 20-23, of the Massachusetts General Laws (as may be amended from time to time, the "Act") and pursuant thereto has issued its Comprehensive Permit Guidelines (as may be amended from time to time, the "Guidelines" and, collectively with the Regulations and the Act, the "Comprehensive Permit Rules");

WHEREAS, the Development is being financed with a loan of approximately \$ [] by [], a Federal Home Loan Bank of Boston ("FHLBB") member bank (the "NEF Lender"), a non-governmental entity for which the Massachusetts Housing Finance Agency acts as Subsidizing Agency pursuant to the Comprehensive Permit Rules; and

WHEREAS, the Massachusetts Housing Finance Agency will serve as Subsidizing Agency on behalf of DHCD pursuant to the Comprehensive Permit Rules and in accordance with the terms and provisions hereof; and

WHEREAS, the Developer has received a comprehensive permit (the "Comprehensive Permit") from the Zoning Board of Appeals of the Municipality in accordance with the Act, which permit is [recorded/filed] at the [] County [Registry of Deeds/Registry District of the Land Court] ("Registry") [in Book [], Page []/ as Document No. []], as

amended by [amendments recorded in Book _____, Page ___/ as Document No. _____, and in Book _____, Page ___/ as Document No. _____, and by] the terms of this Agreement; and

WHEREAS, pursuant to the Comprehensive Permit and the requirements of the Comprehensive Permit Rules, the Development is to consist of a total of _____ rental units, of which a minimum of 25 percent (____ units) (the "Affordable Units") will be rented to Low or Moderate Income Persons and Families (as defined herein) at rentals specified in this Agreement and will be subject to this Agreement; and

WHEREAS, the parties intend that this Agreement shall serve as a "Use Restriction" as defined in and required by Section 56.05(13) of the Regulations; and

WHEREAS, the parties recognize that Affirmative Fair Marketing (as defined herein) is an important precondition for rental of Affordable Units and that local preference cannot be granted in a manner which results in a violation of applicable fair housing laws, regulations and subsidy programs; and.

WHEREAS, the parties recognize that the Municipality has an interest in preserving affordability of the Affordable Units and may offer valuable services in administration, monitoring and enforcement.

NOW, THEREFORE, in consideration of the agreements hereinafter set forth, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Subsidizing Agency and the Developer hereby agree as follows:

DEFINITIONS

1. In addition to terms defined elsewhere in this Agreement, the following terms as used in this Agreement shall have the meanings set forth below:

Act shall have the meaning given such term in the Recitals hereof.

Affirmative Fair Housing Marketing Plan shall mean the Affirmative Fair Housing Marketing Plan prepared by the Developer in accordance with the Guidelines and approved by the Subsidizing Agency, with such changes thereto that may be approved by the Subsidizing Agency, as further set forth in Section 3.

Affordable Units shall have the meaning set forth in the Recitals above.

Allowable Development Costs shall have the meaning given such term in Section 21 hereof.

Annual Income shall be determined in the manner set forth in 24 C.F.R. 5.609 (or any successor regulations).

Area shall mean the [redacted] Metropolitan Statistical Area (MSA) [or HUD Metro FMR Area (HMFA)] as designated by the Department of Housing and Urban Development (“HUD”).

Area Median Income (“AMI”) shall mean the median gross income for the Area, as determined from time to time by HUD. For purposes of determining whether Adjusted Family Income qualifies a tenant for treatment as a Low or Moderate Income Tenant, the Area Median Income shall be adjusted for family size.

Audited Annual Limited Dividend Financial Report shall mean an annual report to be submitted by the Developer on a form prescribed by the Subsiding Agency, pursuant to Section 12(b) hereof.

Comprehensive Permit shall have the meaning given such term in the Recitals hereof.

Comprehensive Permit Rules shall have the meaning given such term in the Recitals hereof.

Construction Lender shall mean the lender(s) making the Construction Loan, and its successors and assigns.

Construction Loan shall mean the loan to the Developer for the construction of the Development.

Construction Mortgage shall mean the mortgage from the Developer securing the Construction Loan.

Cost Certification shall have the meaning given such term in Section 21 hereof.

Cost Method shall have the meaning given such term in Section 7(d) hereof.

Developer Parties shall have the meaning given such term in Section 7(a) hereof.

Developer’s Equity shall be determined in the manner set forth in Section 7(d) hereof.

Development shall have the meaning given such term in the Recitals hereof.

Development Revenues: All rental income, receipts and other revenue derived from the operation of the Development other than revenues derived from any sales, financing, or other capital transaction, and not including any amounts payable in respect of capital contributions paid by any members or partners of the Developer or any loan proceeds payable to the Developer.

Distribution Payments shall have the meaning given such term in Section 7(a) hereof.

Event of Default shall mean a default in the observance of any covenant under this Agreement or the Mortgage existing after the expiration of any applicable notice and cure periods.

Excess Development Revenues shall have the meaning given such term in Section 12(e) hereof

Excess Equity: Surplus Cash in excess of the permitted Limited Dividend Distribution, as calculated in accordance with the Audited Annual Limited Dividend Financial Report described in Section 12 hereof.

Excess Equity Account: An interest-bearing account maintained by the Lender (or if the Loan is paid off, with the Subsidizing Agency) for the benefit of the Development during the Term hereof containing Development Revenues which exceed the Limited Dividend Distribution in a given year or years.

Family shall have the same meaning as set forth in 24 C.F.R. §5.403 (or any successor regulations).

Fiscal Year: The fiscal year of the Developer ending [REDACTED].

Guidelines shall have the meaning given such term in the Recitals hereof.

Housing Subsidy Program shall mean any other state or federal housing subsidy program providing rental or other subsidy to the Development.

HUD shall mean the United States Department of Housing and Urban Development.

Lender shall mean the Construction Lender and/or the Permanent Lender.

Limited Dividend Distribution: The aggregate annual distributions permitted to be made to the Developer from Development Revenues as calculated pursuant to the Audited Annual Limited Dividend Financial Report.

Limited Dividend Term shall have the meaning set forth in Section 23(b) hereof.

Loan shall mean the Construction Loan and/or the Permanent Loan.

Low or Moderate Income Persons or Families shall mean persons or Families whose Annual Incomes do not exceed eighty percent (80%) of the Median Income for the Area, and shall also mean persons or Families meeting such lower income requirements as may be required under the Comprehensive Permit or any applicable Housing Subsidy Program.

Low or Moderate Income Tenants shall mean Low or Moderate Income Persons or Families who occupy the Affordable Units.

Mortgage shall mean the Construction Mortgage and/or the Permanent Mortgage.

Permanent Lender shall mean the lender(s) making the Permanent Loan to the Developer, and its successors and assigns.

Permanent Loan shall mean the Permanent Loan made or committed to be made by the Permanent Lender to the Developer after completion of construction of the Development, which will replace the Construction Loan, or any subsequent refinancing thereof in compliance with any specific terms of the Comprehensive Permit or any Housing Subsidy Program applicable to the Development.

Permanent Mortgage shall mean the mortgage from the Developer to the Permanent Lender securing the Permanent Loan.

Regulations shall have the meaning given such term in the Recitals hereof.

Related Person: shall mean a person whose relationship to such other person is such that (i) the relationship between such persons would result in a disallowance of losses under Section 267 or 707(b) of the Internal Revenue Code, or (ii) such persons are members of the same controlled group of corporations (as defined in Section 1563(a) of the Internal Revenue Code, except that “more than 50 percent” shall be substituted for “at least 80 percent” each place it appears therein).

Substantial Completion shall have the meaning given such term in Section 20 hereof.

Surety shall have the meaning given such term in Section 22 hereof.

Surplus Cash shall have the meaning given such term in Section 7(c) hereof.

Tenant Selection Plan shall mean the Tenant Selection Plan, prepared by the Developer in accordance with the Guidelines and approved by the Subsidizing Agency, with such changes thereto which may be approved by the Subsidizing Agency.

Term shall have the meaning set forth in Section 23 hereof.

Total Development Costs (“TDC”) shall have the meaning set forth in Section 7(h) hereof.

Value Method shall have the meaning given such term in Section 7(d) hereof.

CONSTRUCTION OBLIGATIONS

2. (a) The Developer agrees to construct the Development in accordance with plans and specifications approved by the Subsidizing Agency and the Municipality (the “Plans and Specifications”), in accordance with all on-site and off-site construction, design and land use conditions of the Comprehensive Permit, and in accordance with the information describing the Development presented by the Developer to the Subsidizing Agency in its application for Final Approval. All Affordable Units to be constructed as part of the Development must be similar in exterior appearance to other units in the Development and shall be evenly dispersed throughout the Development. In addition, all Affordable Units must contain complete living facilities including but not limited to a stove, kitchen cabinets, plumbing fixtures, and sanitary facilities,

all as more fully shown in the Plans and Specifications. Materials used for the interiors of the Affordable Units must be of good quality. The Development must fully comply with the State Building Code and with all applicable state and federal building, environmental, health, safety and other laws, rules, and regulations, including without limitation all applicable federal and state laws, rules and regulations relating to the operation of adaptable and accessible housing for the handicapped. Except to the extent that the Development is exempted from such compliance by the Comprehensive Permit, the Development must also comply with all applicable local codes, ordinances and by-laws.

(b) The Subsidizing Agency shall monitor compliance with the construction obligations set forth in this section in such manner as the Subsidizing Agency may deem reasonably necessary. In furtherance thereof, the Developer shall provide to the Subsidizing Agency (i) evidence that the final plans and specifications for the Development comply with the requirements of the Comprehensive Permit and that the Development was built substantially in accordance with such plans and specifications; and (ii) prior to commencement of construction, a certification from the Construction Lender concerning construction monitoring in a form acceptable to the Subsidizing Agency. If the information provided to the Subsidizing Agency is not acceptable to the Subsidizing Agency, or if at any time after acceptance the NEF Lender's construction monitor fails to provide adequate construction oversight in accordance with the requirements of the NEF Lender's certification, the Subsidizing Agency may require that the Developer fund the cost of a construction monitor retained by the Subsidizing Agency.

USE RESTRICTION/RENTALS AND RENTS

3. (a) The Developer shall rent the Affordable Units during the Term hereof to Low or Moderate Income Persons or Families upon the terms and conditions set forth in the Comprehensive Permit and this Agreement. In fulfilling the foregoing requirement, the Developer will accept referrals of tenants from the Public Housing Authority in the Municipality, and will not unreasonably refuse occupancy to any prospective tenants so referred who otherwise meet the requirements of the Tenant Selection Plan. The foregoing provisions shall not relieve the Developer of any obligations it may have under the provisions of other documents and instruments it has entered with respect to any applicable Housing Subsidy Program; provided, however, the Subsidizing Agency shall have no obligation hereunder, expressed or implied, to monitor or enforce the applicable requirements of any such Housing Subsidy Programs.

(b) The annual rental expense for each Affordable Unit (equal to the gross rent plus allowances for all tenant-paid utilities, including but not limited to tenant-paid heat, hot water and electricity) shall not exceed thirty percent (30%) of eighty percent (80%) of AMI (or such other percentage of AMI established by DHCD for Comprehensive Permit Projects In Which Funding Is Provided By Other Than a State Agency), adjusted for household size, assuming that an Affordable Unit which does not have a separate bedroom is occupied by one individual, and that a unit which has one or more separate bedrooms is occupied by 1.5 individuals for each separate bedroom. If rentals of the Affordable Units are subsidized under any Housing Subsidy Program, then the rent applicable to the Affordable Units may be limited to that permitted by

such Housing Subsidy Program, provided that the tenant's share of rent does not exceed the maximum annual rental expense as provided in this Agreement.

(c) For purposes of satisfying the requirement that the Affordable Units shall be occupied by Low or Moderate Income Tenants hereunder, no Low or Moderate Income Tenant shall be denied continued occupancy because, after admission, the Low Moderate Income Tenant's Annual Income exceeds eighty percent (80%) of Area Median Income. No Low or Moderate Income Tenant shall continue to be counted as a Low or Moderate Income Tenant as of any date upon which such tenant's Annual Income exceeds one hundred forty percent (140%) of the level at which a tenant may be qualified as a Low or Moderate Income Tenant provided, however, that the Developer shall not be in default regarding the requirements of this Agreement to maintain occupancy of the Affordable Units by Low or Moderate Income Tenants if the Developer rents the next available unit or units of comparable or smaller size to Low or Moderate Income Tenants as needed to achieve compliance with such requirements (thereupon, as rented to a Low or Moderate Income Tenant, such unit or units shall be deemed an Affordable Unit hereunder). Other than as provided above, any unit shall retain its character as an Affordable Unit occupied by a Low or Moderate Income Tenant until it is reoccupied, at which time whether or not such unit is occupied by a Low or Moderate Income Tenant shall be redetermined under the rules set forth in this Section 3, except that no reoccupancy of an Affordable Unit for a temporary period not to exceed thirty-one (31) days shall be taken into account for this purpose.

(d) If, after initial occupancy, the Annual Income of a Low or Moderate Income Tenant increases and, as a result of such increase, exceeds eighty percent (80%) of Area Median Income but is less than one hundred forty percent (140%) of Area Median Income for such a Low or Moderate Income Tenant, at the expiration of the applicable lease term, such tenant's rent may be increased to the higher of the total rental that may be required under any applicable Housing Subsidy Program (including both the tenant share and the subsidized portion) or thirty percent (30%) of such tenant's Annual Income. In the event that a Low or Moderate-Income Tenant's Annual Income increases and, as a result of such increase, exceeds one hundred forty percent (140%) of Area Median Income, the Developer may charge the formerly Low or Moderate-Income Tenant a market rate for the dwelling unit.

(e) Rentals for the Affordable Units shall be initially established as shown on the Rental Schedule attached as Appendix A hereto, subject to change from time to time (if necessary to reflect any changes in AMI) in accordance with the terms and provisions of this Agreement and any applicable Housing Subsidy Program. The Developer shall annually submit to the Subsidizing Agency a proposed schedule of monthly rents and utility allowances for all Affordable Units in the Development. It is understood that the Subsidizing Agency shall review such schedule with respect to the maximum rents for all the Affordable Units based on the size and required extent of affordability of each affordable Unit, and shall not take into account the actual incomes of individual tenants in any given Affordable Unit. Rents for the Affordable Units shall not be increased above such maximum monthly rents without the Subsidizing Agency's prior approval of either (i) a specific request by the Developer for a rent increase; or (ii) the next annual schedule of rents and allowances as set forth in the preceding sentence. Notwithstanding the foregoing, rent increases shall be subject to the provisions of outstanding

leases and shall not be implemented without at least 30 days' prior written notice by the Developer to all affected tenants.

(f) The Developer shall obtain income certifications satisfactory in form and manner to the Subsidizing Agency at least annually for all Low or Moderate-Income Tenants, or more frequently if required by any applicable Housing Subsidy Program. Said income certifications shall be kept by the management agent for the Development and made available to the Subsidizing Agency upon request.

(g) Prior to initial lease-up, the Developer shall submit an Affirmative Fair Housing Marketing Plan (also known as an "AFHM Plan") for the Subsidizing Agency's approval. At a minimum the AFHM Plan shall meet the requirements of the Guidelines, as the same may be amended from time to time. The AFHM Plan, upon approval by the Subsidizing Agency, shall become a part of this Agreement and shall have the same force and effect as if set out in full in this Agreement.

(h) The AFHM Plan shall designate entities to implement the plan that are qualified to perform their duties. The Subsidizing Agency may require that another entity be found if the Subsidizing Agency finds that the entity designated by the Developer is not qualified. Moreover, the Subsidizing Agency may require the removal of an entity responsible for a duty under the Affirmative Fair Housing Marketing Plan if that entity does not meet its obligations under the Affirmative Fair Housing Marketing Plan.

(i) The restrictions contained herein are intended to be construed as an affordable housing restriction as defined in Section 31 of Chapter 184 of Massachusetts General Laws which has the benefit of Section 32 of said Chapter 184, such that the restrictions contained herein shall not be limited in duration by any rule or operation of law but rather shall run for the Term hereof. In addition, this Agreement is intended to be superior to the lien of any mortgage on the Development and survive any foreclosure or exercise of any remedies thereunder and the Developer agrees to obtain any prior lienholder consent with respect thereto as the Subsidizing Agency shall require.

TENANT SELECTION AND OCCUPANCY

4. The Developer shall use its good faith efforts during the Term of this Agreement to maintain all the Affordable Units within the Development at full occupancy as set forth in Section 2 hereof. In marketing and renting the Affordable Units, the Developer shall comply with the Tenant Selection Plan and Affirmative Fair Housing Marketing Plan which are incorporated herein by reference with the same force and effect as if set out in this Agreement.

5. Occupancy agreements for Affordable Units shall meet the requirements of the Comprehensive Permit Rules, this Agreement, and any applicable Housing Subsidy Program, and shall contain clauses, among others, wherein each resident of such Affordable Unit:

(a) certifies the accuracy of the statements made in the application and income survey;

(b) agrees that the family income, family composition and other eligibility requirements, shall be deemed substantial and material obligations of his or her occupancy; that he or she will comply promptly with all requests for information with respect thereto from the Developer or the Subsidizing Agency; and that his or her failure or refusal to comply with a request for information with respect thereto shall be deemed a violation of a substantial obligation of his or her occupancy; and

(c) agrees that at such time as the Developer or the Subsidizing Agency may direct, he or she will furnish to the Developer certification of then current family income, with such documentation as the Subsidizing Agency shall reasonably require; and agrees to such charges as the Subsidizing Agency has previously approved for any facilities and/or services which may be furnished by the Developer or others to such resident upon his or her request, in addition to the facilities included in the rentals, as amended from time to time pursuant to Section 3 above.

EXPIRATION OF RESTRICTIONS - TENANT PROTECTIONS

6. (a) If, upon the expiration of the Term hereof, the affordability requirements under the Comprehensive Permit shall expire, the Developer shall deliver a written notice to all Low or Moderate or Income Tenants of such expiration (the "Expiration Notice") at the same time that it shall provide such notice to the Subsidizing Agency. The Expiration Notice shall inform all Low or Moderate or Income Tenants of the tenant protections described in this Section 6.

(b) For a period of one year after the date of expiration ("Year 1") (the date of expiration is hereinafter referred to as the "Expiration Date"), the Developer may not increase the rentals payable by any Low or Moderate-Income Tenant on the Expiration Date (a "Protected Low or Moderate-Income Tenant"), except for rental increases which would have been permitted by the terms and provisions of the applicable Housing Subsidy Program if such Expiration Date had not occurred.

(c) For a period of two years after Year 1 ("CPI Index Period"), the rentals for units occupied by Protected Low or Moderate Income Tenants may not be increased more than once annually by the greater of: (i) the consumer price index (applicable to the area in which the Development is located) times the rental rate in effect as of the Expiration Date; or (ii) such higher amount as the Subsidizing Agency shall approve. In no event may the Developer increase rentals for such Affordable Units in excess of any limitations contained in a Housing Subsidy Program which remains in effect after the Expiration Date.

(d) For three (3) years after the CPI Index Period (the "Transition Period"), the Developer shall provide Relocation Assistance, as defined herein, for any Protected Low or Moderate-Income Tenant who voluntarily terminates his or her lease during the Transition Period as a result of rental increases. For the purposes hereof, the term "Relocation Assistance" shall mean reasonable assistance in locating a comparable affordable unit, including the payment

of any broker's fees and the payment of reasonable moving expenses within a thirty (30) mile radius of the Development.

(e) Upon expiration, the Developer agrees to continue to use the form of occupancy agreement for all Protected Low or Moderate-Income Tenants until the expiration of the periods described in (b) and (c), above. Thereafter, the Developer may require that all Protected Low or Moderate-Income Tenants enter into the lease form used for tenants in the market-rental units or a lease substantially in the form published by the National Apartment Association, provided that any new occupancy agreement shall provide the Protected Low or Moderate-Income Tenants with the benefits of subsection (d), above.

(f) The provisions of this Section 6 shall survive the termination of any other provisions of this Agreement as a result of expiration until the expiration of the periods described in subsections (b), (c), and (d), above.

(g) Protected Low or Moderate-Income Tenants shall have a right to enforce the protections provided them in this Section 6.

LIMITED DIVIDENDS; USE OF DEVELOPMENT REVENUES

7. (a) The Developer covenants and agrees that no Distribution Payments may be made to the Developer other than Limited Dividend Distributions. Repayment of developer's fee loaned is treated as a Limited Dividend Distribution and is subject to the limitations set forth herein. Limited Dividend Distributions may be made: (i) on a quarterly basis within the Developer's Fiscal Year; (ii) only once all currently payable amounts as identified in subsection (i) below are paid as evidenced by a certificate provided by an independent accountant certifying that no such obligations are more than thirty (30) days past due and that there are no outstanding material extraordinary obligations incurred outside the ordinary course of business, even if thirty (30) or less days past due; and (iii) only after (x) submission by the Developer of the Audited Annual Limited Dividend Financial Report pursuant to Paragraph 12(b) below and (y) acceptance by the Subsidizing Agency of said report. Except with the prior written authorization of the Subsidizing Agency, Limited Dividend Distributions cannot be derived or made from borrowed funds or from the sale of capital assets.

For the purposes hereof, the term "Distribution Payments" shall mean all amounts paid from Development Revenues (herein called "Development Revenues") which are paid to any partner, manager, member or any other Related Person of the Developer (collectively, the "Developer Parties") as profit, income, or fees or other expenses which are unrelated to the operation of the Development or which are in excess of fees and expenses which would be incurred from persons providing similar services who are not Developer Parties and who provide such services on an arms-length basis.

(b) No Limited Dividend Distributions may be made when: (i) a default or an Event of Default has occurred and is continuing under this Agreement; (ii) there has been failure to comply with the Subsidizing Agency's notice of any reasonable requirement for adequate (as

determined by the Subsidizing Agency using its reasonable discretion) maintenance of the Development in order to continue to provide decent, good quality and safe affordable housing; or (iii) prior to the expiration of the Term hereof, there is outstanding against all or any part of the Development any lien or security interest other than a lien securing the Loan or a lien expressly permitted by the Subsidizing Agency.

(c) Subject to the provisions set forth above, Limited Dividend Distributions may only be made to the Developer from Surplus Cash, provided that no Limited Dividend Distribution for any Fiscal Year may exceed ten percent (10%) of Developer's Equity.

“Surplus Cash”, which is a balance sheet calculation, represents the long-term accumulation of working capital from the Development’s revenues that is available at the end of any given Fiscal Year to make: (i) Limited Dividend Distributions; (ii) deposits into the Excess Equity Account; and (iii), if necessary, a distribution to the Municipality for the purpose of developing and/or preserving Affordable Housing. The calculation of Surplus Cash is more fully detailed in Part A of the current “M.G.L. Ch. 40B RENTAL DEVELOPMENTS / Instructions for Use of Calculation Tool for Computation of Excess Equity and Limited Dividend Distributions” (as it may be amended, revised or replaced) available from the Subsidizing Agency and which currently is the form to be used in the preparation of the Audited Annual Limited Dividend Financial Report.

(d) For the purposes hereof the initial amount of "Developer’s Equity" shall be \$_____, subject to adjustment as provided herein. The initial amount of "Developer’s Equity" is established at the time of Final Approval based on the Developer’s projection pursuant to the Cost Method as defined below. This initial amount shall be adjusted and verified at the time of Cost Certification with respect to the construction of the Development in accordance with the “Inter-Agency 40B Rental Cost Certification Guidance for Owners, Certified Public Accountants and Municipalities” (as it may be amended, revised or replaced) as the greater of the amounts determined by (a) the “Cost Method” or (b) the “Value Method.” For purposes hereof the term “Cost Method” is defined as (i) actual cash contributed by the Developer to the Development, including tax credit equity (if applicable) plus (ii) the deferred portion of the maximum allowable developer fee determined in accordance with DHCD policy, provided that any payment of such deferred fee from project cash flow is treated as a Distribution Payment in accordance with Section 7 hereof, plus (iii) the appraised “as-is” market value of the land that exceeds the actual purchase price paid by the Developer for said land, if any. For purposes hereof the term “Value Method” is defined as (i) the as-complete and stabilized appraised market value of the Development, as determined by an independent appraisal commissioned by the Subsidizing Agency in accordance with this Section 7(d), less (ii) the sum of secured debt on the Development plus public equity, whether structured as a grant or loan, as determined by the Subsidizing Agency.

Thereafter, Developer’s Equity may be adjusted not more than once in any five year period with the first five - year period commencing with the first Fiscal Year of the Development. Any adjustments shall be made only upon the written request of the Developer. Unless the Developer is otherwise directed by the Subsidizing Agency, the initial appraised market value and any adjustment thereto shall be based upon an appraisal commissioned by (and

naming as a client) the Subsidizing Agency and prepared by an independent and qualified appraiser prequalified by, and randomly assigned to the Development by, the Subsidizing Agency. The appraiser shall submit a Self-Contained Appraisal Report to the Subsidizing Agency in accordance with the Uniform Standards of Professional Appraisal Practice (USPAP). The costs of such appraisal shall be borne by the Developer. Such appraisal shall use assumptions subject to the reasonable approval of the Subsidizing Agency.

Upon completion of an appraisal as provided above, the Developer's Equity shall be adjusted to equal the appraised value of the Development as determined by the appraisal less the unpaid principal amount of the sum of secured debt on the Development plus public equity, whether structured as a grant or loan determined as of the date of the appraisal. Such new Developer's Equity shall be the Developer's Equity commencing with the first day of the Fiscal Year following the date of such appraisal and remain in effect until a subsequent adjustment.

A sale or refinancing of the Development shall not result in a new evaluation of Developer's Equity, except as provided above.

(e) In the event that the amount available for Limited Dividend Distributions in a given Fiscal Year exceeds the Limited Dividend Distribution permitted for such Fiscal Year pursuant to Section 7(c) above, such excess shall be deposited and administered in accordance with Section 7(f) below. Amounts deposited into the Excess Equity Account may, subject to subsections (a) through (c) above, and pursuant to the Subsidizing Agency's Limited Dividend Policy, be distributed by the Lender (or the Subsidizing Agency, as applicable) to the Developer in amounts equal to the difference between the amount by which Limited Dividend Distributions actually made in any prior Fiscal Year were less than the amount permitted to be distributed under Section 7(c) hereof for such Fiscal Year. In the event that Surplus Cash is insufficient to allow the Developer to take its Limited Dividend Distribution as permitted herein and there are funds in the Excess Equity Account, Lender (or the Subsidizing Agency, as applicable) may distribute to the Developer an amount equal to the unpaid portion of the permitted Limited Dividend Distribution for such Fiscal Year, provided that, in no event shall the amount so distributed exceed the amount available in the Excess Equity Account.

Notwithstanding the foregoing, in the event that the amount available for Limited Dividend Distributions in a given Fiscal Year exceeds the Limited Dividend Distribution permitted for such Fiscal Year pursuant to Section 7(c) above, the amount of any such excess may be applied to pay, with simple interest, the amount by which Limited Dividend Distributions made in any of the preceding Fiscal Years were less than the amount permitted to be paid under Section 7(c) hereof for such Fiscal Years, subject to the provisions of subsections (a) through (c) above.

(f) Any amounts available for a Limited Dividend Distribution which may not be distributed in any year pursuant to the provisions of Section 7(c) above ("Excess Equity"), shall be deposited in the Excess Equity Account with the Lender (or if the Loan is paid off, with the Subsidizing Agency). No distributions may be made to the Developer from the Excess Equity Account except those permitted pursuant to Section 7(e) and (f) hereof. Upon the occurrence of an Event of Default under this Agreement or the Mortgage, the Lender (or the Subsidizing

Agency, as applicable) may apply any amounts in the Excess Equity Account to the payment of all or any portion of the debt secured by the Mortgage.

Upon the Developer's written request, amounts may also be withdrawn from the Excess Equity Account by the Lender (or the Subsidizing Agency, as applicable) during the Term hereof and applied for any purpose described in Section 7(i) hereof or for any purpose (i) that provides a direct and material benefit to Low or Moderate Tenants; (ii) that reduces rentals to Low or Moderate Tenants; (iii) that extends the affordability of the Development; or (iv) that provides relocation and transitional assistance to Low or Moderate Tenants as described in Section 6 hereof.

To the extent that the Term of this Agreement extends beyond satisfaction in full of the debt secured by the Mortgage, the Subsidizing Agency may, in its sole discretion, during the remaining Term, make amounts available from the Excess Equity Account to: (a) pay all or a portion of the annual monitoring fee that remains outstanding thirty (30) days after its due date, and/or (b) provide relocation and transitional assistance to tenants of Affordable Units.

Upon the Developer's written request, amounts may also be withdrawn from the Excess Equity Account during the Term hereof and applied for the following purposes: (i) payment of or adequate reserve for all sums due or currently required to be paid under the terms of the Mortgage; (ii) payment of or adequate reserve for all reasonable and necessary operating expenses of the Development as reasonably determined by the Developer; (iii) deposit of all amounts as may be deposited in a reserve fund for capital replacements reasonably determined by the Developer to be sufficient to meet anticipated capital needs of the Development which may be held by Lender or a lending institution reasonably acceptable to the Subsidizing Agency and which reserves shall be used for capital expenditures for the Development reasonably determined to be necessary by the Developer; (iv) payments of operating expense loans made by the partners, managers or members of the Developer for Development expenses, provided that the Developer shall have obtained prior written approval for such loans from the applicable Lender (or, if there is no mortgage, or after discharge of the Mortgage, from the Subsidizing Agency) and shall have supplied the applicable Lender (or the Subsidizing Agency) with such evidence as the applicable Lender (or the Subsidizing Agency, as applicable) may reasonably request as to the application of the proceeds of such operating expense loans to the Development; or (v) for any other purposes, subject to a determination by the Lender (or, if there is no Mortgage, or the Mortgage is discharged during the Term of this Agreement, the reasonable determination by the Subsidizing Agency) that the expenditure is necessary to address the Development's physical or financial needs and that no other Development reserve funds are available to address such needs. Notwithstanding the foregoing, payment of the items set forth in clauses (i), (ii) and (iv) above by the Developer shall be subject to the prior written approval of the Subsidizing Agency, which approval shall not be unreasonably withheld or delayed; it being agreed by the Subsidizing Agency that if the Developer can demonstrate that its proposed operating expenditures and reserves are substantially consistent with those made for comparable developments within the Commonwealth of Massachusetts, the Subsidizing Agency shall approve such request. Further, in no event shall such review or approval be required by the Subsidizing Agency to the extent any such capital expenditures or reserves are mandated by Lender.

In any event, cash available for distribution in any year in excess of 20% of Developer's Equity, subject to payment of a Limited Dividend Distribution pursuant to Section 7(c) hereof, shall be distributed to the Municipality within fifteen (15) business days of notice and demand given by the Subsidizing Agency as provided herein, or as otherwise directed by DHCD. Upon the expiration of the Limited Dividend Term (as defined in Section 23(b) hereof), any balance remaining in the Excess Equity Account shall (i) be contributed by the Developer to the replacement reserve held for the Development, if such contribution is deemed by the Subsidizing Agency (in its reasonable discretion) to be necessary, (ii) be distributed to the Subsidizing Agency for the purpose of developing and/or preserving affordable housing, or (iii) be distributed as otherwise directed by DHCD.

(g) All funds in the Excess Equity Account shall be considered additional security for the performance of obligations of the Developer under the Mortgage and this Agreement and the Developer hereby pledges and grants to the Lender (or the Subsidizing Agency, as applicable) a continuing security interest in said funds. Furthermore, the Developer recognizes and agrees that (i) possession of said funds by the Lender (or the Subsidizing Agency, as applicable) constitutes a bona fide pledge of said funds to the Lender (or the Subsidizing Agency, as applicable) for security purposes, (ii) to the extent required by applicable law, this Agreement, in combination, as necessary, with other documents referred to herein, constitutes a valid and binding security agreement, and (iii) the validity and effectiveness of said pledge will not be compromised if said funds are held in a bank or other financial institution. The Developer further acknowledges and agrees that, notwithstanding any nomenclature or title given to the Excess Equity Account by the bank or other financial institution at which the Excess Equity Account is held, or the fact that the Developer's tax identification number is used with respect to the Excess Equity Account, the Lender (or the Subsidizing Agency, as applicable), and not the Developer, shall be the customer of the bank or other financial institution holding the Excess Equity Account; such bank or other financial institution shall comply with instructions originated by the Lender (or the Subsidizing Agency, as applicable) directing the disposition of funds in the Excess Equity Account, without further consent of the Developer; and the Lender (or the Subsidizing Agency, as applicable), and not the Developer, shall have the exclusive right to withdraw funds from the Excess Equity Account.

(h) Payment of fees and profits from capital sources for the initial development of the Development to the Developer and/or the Developer's related party consultants, partners and legal or beneficial owners of the Development shall, unless otherwise limited by DHCD, be limited to no more than ten percent (10%) of Total Development Costs, net of (i) such fees and profits, and (ii) any working capital or reserves intended for operation of the Development and approved by the Subsidizing Agency. Such limited payment of fees and profits shall not include fees or profits paid to any other party, whether or not related to the Developer, to the extent the same are arm's length and commercially reasonable in light of the size and complexity of the Development. The Developer shall comply with the requirements of Section 21 below regarding Cost Certification. In accordance with the requirements of 760 CMR 56.04(8)(e), in the event that the Subsidizing Agency determines, following examination of the Cost Certification submitted by the Developer pursuant to Section 21 below, that amounts were paid or distributed by the Developer in excess of the above limitations (the "Excess Distributions"), the Developer

shall pay over in full such Excess Distributions to the Municipality within fifteen (15) business days of notice and demand given by the Subsidizing Agency as provided herein.

For the purposes hereof, the term “Total Development Costs” shall mean the total of all costs associated with acquisition, construction (including construction contingency), and general development (such as architectural, engineering, legal, and financing fees, insurance, real estate taxes and loan interest) for the Development. Total Development Costs include (i) developer overhead and developer fees, and (ii) any capitalized reserves intended for operation of the Development and approved by the Subsidizing Agency as being specifically excluded from the calculation of fees and profits payable from capital sources for the initial development of the Development.

(i) The Developer shall apply Development Revenues in the following order of priority: (x) payment of or adequate reserve for all sums due or currently required to be paid under the terms of the Loan; and (y) payment of or adequate reserve for all reasonable and necessary expenses of the Development as identified below. With respect to the application of Development Revenues as described above, the Developer agrees as follows:

(i) Payment for services, supplies, or materials shall not exceed the amount ordinarily and reasonably paid for such services, supplies, or materials in the area where the services are rendered or the supplies or materials furnished;

(ii) Reasonable and necessary expenses which may be payable pursuant to subsection (i), above, shall be directly related to the operation, maintenance or management of the Development; and

(iii) Without the Subsidizing Agency’s prior written consent, the Developer may not assign, transfer, create a security interest in, dispose of, or encumber any Development Revenues except as expressly permitted herein.

(j) Notwithstanding anything to the contrary contained in this Agreement, a distribution resulting from the proceeds of a sale or refinancing of the Development shall not be regulated by this Agreement. A sale or refinancing shall not result in a new evaluation of Developer’s Equity.

MANAGEMENT OF THE DEVELOPMENT

8. The Developer shall maintain the Development in good physical condition in accordance with the Subsidizing Agency’s requirements and standards and the requirements and standards of the Mortgage and any applicable Housing Subsidy Program. The Developer shall provide for the management of the Development in a manner that is consistent with accepted practices and industry standards for the management of multi-family market rate rental housing. Notwithstanding the foregoing, the Subsidizing Agency shall have no obligation hereunder, expressed or implied, to monitor or enforce any such standards or requirements and, further, the Subsidizing Agency has not reviewed nor approved the Plans and Specifications for compliance with federal, state or local codes or other laws.

CHANGE IN COMPOSITION OF DEVELOPER ENTITY; RESTRICTIONS ON TRANSFERS

9. Prior to Substantial Completion, the following actions, without limitation, shall be subject to the Subsidizing Agency's prior written approval (which approval shall not be unreasonably withheld, conditioned or delayed):

(a) any change, substitution or withdrawal of any general partner, manager, or agent of the Developer; or

(b) the conveyance, assignment, transfer, or relinquishment of twenty-five percent (25%) or more of the Beneficial Interests (herein defined) in the Developer (except for such a conveyance, assignment, transfer or relinquishment among holders of Beneficial Interests as of the date of this Agreement).

For purposes hereof, the term "Beneficial Interest" shall mean: (i) with respect to a partnership, any limited partnership interests or other rights to receive income, losses, or a return on equity contributions made to such partnership; (ii) with respect to a limited liability company, any interests as a member of such company or other rights to receive income, losses, or a return on equity contributions made to such company; or (iii) with respect to a company or corporation, any interests as an officer, board member or stockholder of such company or corporation to receive income, losses, or a return on equity contributions made to such company or corporation;

(c) the sale, conveyance, transfer, ground lease, or exchange of the Developer's interest in the Development or any part of the Development.

Prior to any transfer of ownership of the Development or any portion thereof or interest therein, the Developer agrees to secure from the transferee a written agreement stating that the transferee will assume in full the Developer's obligations and duties under this Agreement.

10. The Developer shall provide the Subsidizing Agency with thirty (30) days' prior written notice of any pledge, assignment or mortgage of the Development, whether direct or indirect, and also, after Substantial Completion, of any sale, conveyance, transfer, ground lease or exchange of the Developer's interest in the Development or any part of the Development. As in Section 9 above, prior to any transfer of ownership of the Development or any portion thereof or interest therein, the Developer agrees to secure from the transferee a written agreement stating that the transferee will assume in full the Developer's obligations and duties under this Agreement.

BOOKS AND RECORDS

11. All records, accounts, books, tenant lists, applications, waiting lists, documents, and contracts relating to the Development shall at all times be kept separate and identifiable from any other business of the Developer which is unrelated to the Development, and shall be maintained, as required by applicable regulations and/or guidelines issued by DHCD and/or the Subsidizing Agency from time to time, in a reasonable condition for proper audit and subject to examination during business hours by representatives of the Subsidizing Agency or DHCD. Failure to keep such books and accounts and/or make them available to the Subsidizing Agency or DHCD will be an Event of Default hereunder.

ANNUAL FINANCIAL REPORT

12. (a) Within ninety (90) days following the end of each Fiscal Year of the Development, the Developer shall furnish the Subsidizing Agency with a complete annual financial report for the Development based upon an examination of the books and records of the Developer containing a detailed, itemized statement of all income and expenditures, prepared and certified by a certified public accountant in accordance with the reasonable requirements of the Subsidizing Agency which include: (i) financial statements submitted in a format acceptable to the Subsidizing Agency; (ii) the financial report on an accrual basis and in conformity with generally accepted accounting principles applied on a consistent basis; and (iii) amounts available for distribution under Section 7 above. A duly authorized agent of the Developer must approve such submission in writing. The provisions of this paragraph may be waived or modified by the Subsidizing Agency.

(b) In addition to the financial information required to be furnished by the Developer to the Subsidizing Agency pursuant to Section 12(a) above, the Developer shall furnish to the Subsidizing Agency, within ninety (90) days of the end of its Fiscal Year, an Audited Annual Limited Dividend Financial Report (including a certificate from the independent certified public accountant (the "CPA") who prepared the Developer's audited financial statements) in the form then required by the Subsidizing Agency. The Subsidizing Agency's agreement to waive or modify the requirement of an Audited Annual Limited Dividend Financial Report for a given Fiscal Year shall not be deemed to constitute a waiver or modification of the requirement of an Audited Annual Limited Dividend Financial Report for any subsequent Fiscal Year. Should the Developer fail in any given year to comply with its obligations under this subparagraph, the Developer acknowledges and agrees that such failure constitutes a knowing waiver and relinquishment of any Limited Dividend Distributions to which it might otherwise be entitled for such Fiscal Year pursuant to Sections 7(c) and/or 7(e) above.

(c) Such Audited Annual Limited Dividend Financial Report shall be accompanied by a Certificate of Developer (in the form as then reasonably required by the Subsidizing Agency) certifying to the Developer's best knowledge and belief, under the pains and penalties of perjury, as to matters such as, without limitation, the fact that (i) the Developer has made available all necessary financial records and related data to the CPA who prepared the Audited Annual Limited Dividend Financial Report, (ii) there are no material transactions related to the Development that have not been properly recorded in the accounting records underlying the Audited Annual Limited Dividend Financial Report, (iii) the Developer has no knowledge of any fraud or suspected fraud affecting the entity involving management, subcontractors, employees who have

significant roles in internal control, or others where the fraud could have a material effect on the Audited Annual Limited Dividend Financial Report and has no knowledge of any allegations of fraud or suspected fraud affecting the Developer or the Development received in communications from employees, former employees, subcontractors, regulators, or others, and (iv) the Developer has reviewed the information presented in the Audited Annual Limited Dividend Financial Report and believes that such determination is an appropriate representation of the Development.

(d) The Subsidizing Agency shall have sixty (60) days after the delivery of the Audited Annual Limited Dividend Financial Report to accept it, to make its objections in writing to the Developer and the Developer's CPA, or to request from the Developer and/or CPA additional information regarding it. If the Subsidizing Agency does not object to the Audited Annual Limited Dividend Financial Report or request additional information with respect to it, the Audited Annual Limited Dividend Financial Report shall have been deemed accepted by the Subsidizing Agency. If the Subsidizing Agency shall request additional information, then the Developer shall provide the Subsidizing Agency with such additional information as promptly as possible and the Subsidizing Agency shall have an additional thirty (30) days thereafter to review such information and either accept or raise objections to such Audited Annual Limited Dividend Financial Report. If no such objections are made within such thirty day (30) period, the Audited Annual Limited Dividend Financial Report shall be deemed accepted by the Subsidizing Agency.

To the extent that the Subsidizing Agency shall raise any objections to such Audited Annual Limited Dividend Financial Report as provided above, then the Developer and the Subsidizing Agency shall consult in good faith and seek to resolve such objections within an additional thirty (30) day period. If any objections are not resolved during such period, then the Subsidizing Agency may enforce the provisions under this Section 12 by the exercise of any remedies it may have under this Agreement.

(e) If upon the acceptance of an Audited Annual Limited Dividend Financial Report as provided above, such Audited Annual Limited Dividend Financial Report shall show that the aggregate Distribution Payments to the Developer during the applicable Fiscal Year exceed the allowable Limited Dividend Distribution for the Developer, then upon thirty (30) days written notice from the Subsidizing Agency, the Developer shall cause such excess to be deposited in the Excess Equity Account from sources other than Development Revenues to the extent not otherwise required by the Lender to remain with the Development.

If such Audited Annual Limited Dividend Financial Report as accepted shall show that there are excess Development Revenues for the Developer which have not been distributed ("Excess Development Revenues"), such amounts shall be applied as provided in Section 7(e) above within thirty (30) days after the acceptance of the Audited Annual Limited Dividend Financial Report as set forth in subsection (d) above.

FINANCIAL STATEMENTS AND OCCUPANCY REPORTS

13. At the request of the Subsidizing Agency, the Developer shall furnish financial statements and occupancy reports and shall give specific answers to questions upon which information is reasonably desired from time to time relative to the ownership and operation of the Development. The Developer covenants and agrees to secure and maintain on file for inspection and copying by the Subsidizing Agency such information, reports and certifications as the Subsidizing Agency may reasonably require in writing in order to insure that the restrictions contained herein are being complied with. The Developer further covenants and agrees to submit to the Subsidizing Agency annually, or more frequently if required in writing by the Subsidizing Agency, reports detailing such facts as the Subsidizing Agency reasonably determines are sufficient to establish compliance with the restrictions contained hereunder, copies of leases for all Affordable Units, and a certification by the Developer that, to the best of its knowledge, the restrictions contained herein are being complied with. The Developer further covenants and agrees promptly to notify the Subsidizing Agency if the Developer discovers noncompliance with any restrictions hereunder.

NO CHANGE OF DEVELOPMENT'S USE

14. Except to the extent permitted by the Comprehensive Permit, as it may be amended pursuant to the Comprehensive Permit Rules, the Developer shall not change the type or number of Affordable Units without prior written approval of the Subsidizing Agency and an amendment to this Agreement. Except to the extent permitted by applicable zoning requirements then in effect, the Developer shall not permit the use of the dwelling accommodations of the Development for any purpose except residences and any other use permitted by the Comprehensive Permit.

NO DISCRIMINATION

15. (a) There shall be no discrimination upon the basis of race, color, disability, religion, sex, familial status, sexual orientation, national origin, genetic information, ancestry, children, marital status, public assistance reciprocity or any other basis prohibited by law in the lease, use, or occupancy of the Development (provided that if the Development qualifies as elderly housing under applicable state and federal law, occupancy may be restricted to the elderly in accordance with said laws) or in connection with the employment or application for employment of persons for the construction, operation and management of the Development.

(b) There shall be full compliance with the provisions of all state or local laws prohibiting discrimination in housing on the basis of race, color, disability, religion, sex, familial status, sexual orientation, national origin, genetic information, ancestry, children, marital status, public assistance reciprocity or any other basis prohibited by law, and providing for nondiscrimination and equal opportunity in housing, including without limitation in the implementation of any local preference established under the Comprehensive Permit. Failure or refusal to comply with any such provisions shall be a proper basis for the Subsidizing Agency to

take any corrective action it may deem necessary including, without limitation, referral to DHCD for enforcement.

DEFAULTS; REMEDIES

16. (a) If any default, violation, or breach of any provision of this Agreement is not cured to the satisfaction of the Subsidizing Agency within thirty (30) days after the giving of notice to the Developer as provided herein, then at the Subsidizing Agency's option, and without further notice, the Subsidizing Agency may either terminate this Agreement, or the Subsidizing Agency may apply to any state or federal court for specific performance of this Agreement, or the Subsidizing Agency may exercise any other remedy at law or in equity or take any other action as may be necessary or desirable to correct noncompliance with this Agreement. No party other than the Subsidizing Agency or its designee shall have the right to enforce the Developer's compliance with the requirements of this Agreement. The thirty (30) day cure period set forth in this paragraph shall be extended for such period of time as may be necessary to cure a non-monetary default so long as the Developer is diligently prosecuting such a cure.

(b) If the Subsidizing Agency elects to terminate this Agreement as the result of an uncured breach, violation, or default hereof, then whether the Affordable Units continue to be included in the Subsidized Housing Inventory maintained by DHCD for purposes of the Act shall from the date of such termination be determined solely by DHCD rules and regulations then in effect.

(c) In the event the Subsidizing Agency or its designee brings an action to enforce this Agreement, unless the Developer prevails in such action the Developer shall pay all fees and expenses (including legal fees) of the Subsidizing Agency and/or its designee. In such event, the Subsidizing Agency and/or its designee shall be entitled to seek recovery of its respective fees and expenses incurred in enforcing this Agreement against the Developer and to assert a lien on the Development, junior to the lien securing the Loan, to secure payment by the Developer of such fees and expenses. The Subsidizing Agency and its designee may perfect a lien on the Development by recording/filing in the Registry one or more certificates setting forth the amount of the costs and expenses due and owing.

(d) The Developer hereby grants to the Subsidizing Agency or its designee the right to enter upon the Development for the purpose of enforcing the terms of this Agreement, or of taking all actions with respect to the Development which the Subsidizing Agency may determine to be necessary or appropriate to prevent, remedy or abate any violation of this Agreement.

MONITORING AGENT; FEES; SUCCESSOR SUBSIDIZING AGENCY

17. The Subsidizing Agency intends to monitor the Developer's compliance with the requirements of this Agreement. The Developer hereby agrees to pay the Subsidizing Agency fees as partial compensation for its services hereunder, as set forth on Appendix B hereto, initially in the amounts and on the dates therein provided, and hereby grants to the Subsidizing

Agency a security interest in Development Revenues as security for the payment of such fees subject to the lien of the Mortgage and this Agreement shall constitute a security agreement with respect thereto.

18. The Subsidizing Agency shall have the right to engage a third party (the “Monitoring Agent”) to monitor compliance with all or a portion of the ongoing requirements of this Agreement. The Subsidizing Agency shall notify the Developer and the Municipality in the event the Subsidizing Agency engages a Monitoring Agent, and in such event (i) as partial compensation for providing these services, the Developer hereby agrees to pay to the Monitoring Agent an annual monitoring fee in an amount reasonably determined by the Subsidizing Agency, payable within thirty (30) days of the end of each Fiscal Year of the Developer during the Term of this Agreement, but not in excess of the amounts as shown on Appendix B hereto and any fees payable under Section 17 hereof shall be net of such fees payable to a Monitoring Agent; and (ii) the Developer hereby agrees that the Monitoring Agent shall have the same rights, and be owed the same duties, as the Subsidizing Agency under this Agreement, and shall act on behalf of the Subsidizing Agency hereunder, to the extent that the Subsidizing Agency delegates its rights and duties by written agreement with the Monitoring Agent. The Monitoring Agent shall apply and adhere to the applicable standards, guidance and policies of DHCD relating to the administrative responsibilities of subsidizing agencies where available, and otherwise shall apply and adhere to the standards and practices of the Subsidizing Agency where applicable.

19. The Subsidizing Agency may resign from its duties hereunder upon ninety (90) days prior written notice to DHCD, the Developer, and the Municipality. In such event, DHCD may appoint a Successor Subsidizing Agency hereunder. If DHCD fails to appoint a Successor Subsidizing Agency, the Subsidizing Agency shall identify a Successor Subsidizing Agency. The Successor Subsidizing Agency shall succeed to all the duties and rights of the Subsidizing Agency hereunder and the Subsidizing Agency shall turn over all amounts and security held by it hereunder to the Successor Subsidizing Agency.

CONSTRUCTION AND FINAL COST CERTIFICATION

20. The Developer shall provide to the Subsidizing Agency evidence that the final plans and specifications for the Development comply with the requirements of the Comprehensive Permit and that the Development was built substantially in accordance with such plans and specifications. Upon Substantial Completion, the Developer shall provide the Subsidizing Agency with a certificate of the architect for the Development in the form of a “Certificate of Substantial Completion” (AIA Form G704) or such other form of completion certificate acceptable to the Subsidizing Agency.

As used herein, the term “Substantial Completion” shall mean the time when the construction of the Development is sufficiently complete so that all of the units may be occupied and amenities may be used for their intended purpose, except for designated punch list items and seasonal work which does not interfere with the residential use of the Development.

21. Within ninety (90) days after Substantial Completion, the Developer shall provide the Subsidizing Agency with its Cost Certification for the Development. The Subsidizing Agency may allow additional time for submission of the Cost Certification if significant issues are determined to exist which prevent the timely submission of the Cost Certification, and may in certain circumstances (such as a halt in construction for a significant period of time) require submission of an interim Cost Certification within ninety (90) days of written notice to the Developer.

For the purposes hereof the term “Cost Certification” shall mean the Developer’s documentation which will enable determination by the Subsidizing Agency of the aggregate amount of all Allowable Development Costs as a result of its review and approval of: (i) an itemized statement of Total Development Costs together with a statement of gross income from the Development received by the Developer to date, all in the format provided in the Subsidizing Agency’s Cost Examination Program, which Cost Certification must be examined (the “Cost Examination”) in accordance with the attestation standards of the American Institute of Certified Public Accountants (AICPA) by an independent certified public accountant (CPA) and (ii) an owner’s certificate, executed by the Developer under pains and penalties of perjury, which identifies the amount of the Construction Contract, the amount of any approved Change Orders, including a listing of such Change Orders, and any amounts due to subcontractors and/or suppliers. “Allowable Development Costs” shall mean any hard costs or soft costs paid or incurred with respect to Development as determined by and in accordance with the Guidelines.

22. In order to ensure that the Developer shall complete the Cost Certification as and when required by Section 21 hereof and, if applicable, pay any Excess Distributions to the Municipality, the Developer has provided the Subsidizing Agency with adequate financial surety (the “Surety”) provided through a letter of credit, bond or cash payment in the amounts and in accordance with the Comprehensive Permit Rules and in a form approved by the Subsidizing Agency. If the Subsidizing Agency shall determine that the Developer has failed in its obligation to provide Cost Certification as and when described above or to pay over to the Municipality any Excess Distributions, the Subsidizing Agency may draw on such Surety in order to pay the costs of completing Cost Certification and/or paying such Excess Distribution amounts due plus reasonable attorneys fees and collections costs.

TERM

23. (a) This Agreement shall bind, and the benefits shall inure to, respectively, the Developer and its successors and assigns, and the Subsidizing Agency and its successors and assigns, until the date which is thirty (30) years from the date hereof (the “Term”). Upon expiration of the Term, this Agreement and the rights and obligations of the Subsidizing Agency hereunder shall automatically terminate without the need of either party executing any additional document. Notwithstanding the foregoing, this Agreement may be released by the Subsidizing Agency if the Development is financed by a state or federal agency and, in connection with such financing, a regulatory agreement acceptable to the Subsidizing Agency is recorded in the Registry. The rights and obligations of the Developer and of the Subsidizing Agency under this Agreement shall continue for the Term, regardless of whether the loan from the NEF Lender is

still outstanding. Prior to the expiration of the Term, the Developer shall enter into a use agreement with the Municipality, or as otherwise required by the Comprehensive Permit Rules, ensuring that the Development will comply with the continued affordability requirements applicable to the Development.

(b) Notwithstanding subsection (a) above, the provisions of Section 7 herein shall bind, and the benefits shall inure to, respectively, Developer and its successors and assigns, and the Subsidizing Agency and its successors and assigns, and the Municipality and its successors and assigns, until the date which is the latter of (i) the expiration of the term of the Loan or (ii) fifteen (15) years from the date of Substantial Completion (the “Limited Dividend Term”).

INDEMNIFICATION/LIMITATION ON LIABILITY

24. The Developer, for itself and its successors and assigns, agrees to indemnify and hold harmless the Subsidizing Agency and any Monitoring Agent against all damages, costs and liabilities, including reasonable attorney’s fees, asserted against the Subsidizing Agency or the Monitoring Agent by reason of its relationship to the Development under this Agreement and not involving the Subsidizing Agency or the Monitoring Agent acting in bad faith or with gross negligence.

25. The Subsidizing Agency shall not be held liable for any action taken or omitted under this Agreement so long as it shall have acted in good faith and without gross negligence.

26. Notwithstanding anything in this Agreement to the contrary, no partner, manager, or member of the Developer and no officer, director, shareholder, trustee, member, manager, agent, or employee of the Developer or of any partner, manager, or member thereof shall have any personal liability for the payment of any sum of money that is, or may become, payable by the Developer under or pursuant to this Agreement or for the performance of any obligation by the Developer arising pursuant to this Agreement, and the Subsidizing Agency shall look only to the Developer’s interest in the Development for such payment or performance.

Nothing herein shall preclude the Subsidizing Agency from asserting such claims as it may have at law or in equity against any partner, manager or member of the Developer or any officer, director, shareholder, trustee, member, manager, agent, or employee of the Developer or of such partner, manager or member for any loss or damage the Subsidizing Agency actually suffers as a result of any of the following:

- (i) a willful breach by such person of the provisions limiting payments or distributions to partners, members, managers, or affiliates as set forth in this Agreement;
or
- (ii) intentional fraud committed by such person; or
- (iii) a willful breach by such person of a warranty contained in this Agreement or a false representation of a material fact made by such person with respect to itself, the

Developer or the Development which was known by such person to be false when made;
or

(iv) a false representation knowingly made by such person that it has legal capacity and is authorized to sign this Agreement on behalf of the entity on whose behalf such individual has signed.

Nothing contained in the provisions of this Section 26 or elsewhere shall limit: (i) the right of the Subsidizing Agency to obtain injunctive relief or to pursue equitable remedies under this Agreement, excluding only any injunctive relief ordering payment of obligations by any person or entity for which personal liability does not otherwise exist; or (ii) the liability of any attorney, law firm, architect, accountant or other professional who or which renders or provides any written opinion or certificate to the Subsidizing Agency in connection with the Development even though such person or entity may be an agent or employee of the Developer or of any partner, manager, or member thereof.

MINIMUM SUBSIDY REQUIREMENTS

27. To ensure that the minimum subsidy requirements of the Comprehensive Permit Rules are satisfied, the Developer shall provide to the Subsidizing Agency a certification from the Lender (which certification may, in the case of the Construction Loan, be combined with the certification required pursuant to Section 2(b) hereof) that the Lender is an FHLBB member bank and shall not transfer all or any portion of its interest in the Loan (including participations or sale of servicing rights, but not including foreclosure of its mortgage) or consent to a refinancing of the Loan (which the Developer hereby agrees not to seek) during the first five (5) years of the Loan without the prior written approval of the Subsidizing Agency.

CASUALTY

28. Subject to the rights of the Lender, the Developer agrees that if the Development, or any part thereof, shall be damaged or destroyed or shall be condemned or acquired for public use, the Developer shall have the right, but not the obligation, to repair and restore the Development to substantially the same condition as existed prior to the event causing such damage or destruction, or to relieve the condemnation, and thereafter to operate the Development in accordance with the terms of this Agreement. Notwithstanding the foregoing, in the event of a casualty in which some but not all of the buildings in the Development are destroyed, if such destroyed buildings are not restored by the Developer then the Developer shall be required to maintain the same percentage of Affordable Units of the total number of units in the Development.

DEVELOPER'S REPRESENTATIONS, COVENANTS AND WARRANTIES

29. The Developer hereby represents, covenants and warrants as follows:

(a) The Developer (i) is a _____ duly organized under, and is qualified to transact business under, the laws of the Commonwealth of Massachusetts, (ii) has the power and authority to own its properties and assets and to carry on its business as now being conducted, and (iii) has the full legal right, power and authority to execute and deliver this Agreement.

(b) The execution and performance of this Agreement by the Developer (i) will not violate or, as applicable, has not violated any provision of law, rule or regulation, or any order of any court or other agency or governmental body, and (ii) will not violate or, as applicable, has not violated any provision of any indenture, agreement, mortgage, mortgage note, or other instrument to which the Developer is a party or by which it or the Development is bound, and (iii) will not result in the creation or imposition of any prohibited encumbrance of any nature.

(c) The Developer will, at the time of execution and delivery of this Agreement, have good and marketable title to the premises constituting the Development free and clear of any lien or encumbrance (subject to encumbrances created pursuant to this Agreement, and any other documents executed in connection with the loan from the NEF Lender, or other encumbrances permitted by the Subsidizing Agency).

(d) There is no action, suit or proceeding at law or in equity or by or before any governmental instrumentality or other agency now pending, or, to the knowledge of the Developer, threatened against or affecting it, or any of its properties or rights, which, if adversely determined, would materially impair its right to carry on business substantially as now conducted (and as now contemplated by this Agreement) or would materially adversely affect its financial condition.

(e) **[for use when the Developer is nominee trust/otherwise delete]** [(i) The undersigned Trustee(s) are the sole Trustee(s) of said Trust, duly appointed in accordance with the terms of the Trust; (ii) said Trust has not been altered, amended, revoked, or terminated, and is presently in full force and effect as recorded; (iii) pursuant to the powers granted under said Trust, the Trustee(s) have the power and authority to execute this Agreement, transfer real estate, and to execute and deliver deeds and related closing documents of any or all trust property; (iv) if under said Trust the consent of beneficiaries is required to authorize the Trustee(s) to execute this Agreement, that written consent of all beneficiaries has been obtained; and (v) no beneficiary is a minor, a corporation selling all or substantially all of its assets or a personal representative of an estate subject to estate tax liens or is now deceased or under any legal disability.]

MISCELLANEOUS CONTRACT PROVISIONS

30. This Agreement may not be modified or amended except with the written consent of the Subsidizing Agency or its successors and assigns and Developer or its successors and assigns. The Developer hereby agrees to make such modifications to this Agreement as may be required by DHCD to implement the Comprehensive Permit Rules, as amended from time to time.

31. The Developer warrants that it has not, and will not, execute any other agreement with provisions contradictory to, or in opposition to, the provisions hereof, and that, in any event, the requirements of this Agreement are paramount and controlling as to the rights and obligations set forth and supersede any other requirements in conflict therewith.

32. The invalidity of any clause, part or provision of this Agreement shall not affect the validity of the remaining portions thereof.

33. Any titles or captions contained in this Agreement are for reference only and shall not be deemed a part of this Agreement or play any role in the construction or interpretation hereof.

34. Words of the masculine gender shall be deemed and construed to include correlative words of the feminine and neuter genders. Unless the context shall otherwise indicate, words importing the singular number shall include the plural number and vice versa, and words importing persons shall include corporations and associations, including public bodies, as well as natural persons.

35. The terms and conditions of this Agreement have been freely accepted by the parties. The provisions and restrictions contained herein exist to further the mutual purposes and goals of DHCD, the Subsidizing Agency, the Municipality and the Developer set forth herein to create and preserve access to land and to decent and affordable rental housing opportunities for eligible families who are often denied such opportunities for lack of financial resources.

NOTICES

36. Any notice or other communication in connection with this Agreement shall be in writing and (i) deposited in the United States mail, postage prepaid, by registered or certified mail, or (ii) hand delivered by any commercially recognized courier service or overnight delivery service, such as Federal Express, or (iii) sent by facsimile transmission if a fax number is designated below, addressed as follows:

If to the Developer:

with copies by regular mail or such hand delivery
[or facsimile transmission] to:

If to the Subsidizing Agency:

Massachusetts Housing Finance Agency
One Beacon Street
Boston, MA 02108
Attention: Director of Comprehensive Permit Programs
Fax: 617-854-1029

Any such addressee may change its address for such notices to any other address in the United States as such addressee shall have specified by written notice given as set forth above.

A notice shall be deemed to have been given, delivered and received upon the earliest of: (i) if sent by certified or registered mail, on the date of actual receipt (or tender of delivery and refusal thereof) as evidenced by the return receipt; or (ii) if hand delivered by such courier or overnight delivery service, when so delivered or tendered for delivery during customary business hours on a business day at the specified address; or (iii) if facsimile transmission is a permitted means of giving notice, upon receipt as evidenced by confirmation. Notice shall not be deemed to be defective with respect to the recipient thereof for failure of receipt by any other party.

RECORDING

37. Upon execution, the Developer shall immediately cause this Agreement and any amendments hereto to be recorded or filed with the Registry, and the Developer shall pay all fees and charges incurred in connection therewith. Upon recording or filing, as applicable, the Developer shall immediately transmit to the Subsidizing Agency and the Monitoring Agent, if any, evidence of such recording or filing including the date and instrument, book and page or registration number of the Agreement.

GOVERNING LAW

38. This Agreement shall be governed by the laws of the Commonwealth of Massachusetts. Any amendments to this Agreement must be in writing and executed by all of the parties hereto. The invalidity of any clause, part, or provision of this Agreement shall not affect the validity of the remaining portions hereof.

CONFLICT; PRIORITY OF AGREEMENT

39. In the event of any conflict or inconsistency (including without limitation more restrictive terms) between the terms of the Comprehensive Permit, any other document relating to the Development and the terms of this Agreement, the terms of this Agreement shall control.

This Agreement is senior to the Mortgage and to any other mortgage encumbering the Development. Furthermore, the Developer understands and agrees that, in the event of foreclosure of the Mortgage and the exercise by the Lender of the power of sale therein, the Development will be sold subject to the restrictions imposed hereby. The Developer acknowledges that any discharge or termination of this Agreement shall not affect the validity or enforceability of the Comprehensive Permit or the obligations of the Developer to comply with the provisions thereof.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, the parties have caused these presents to be signed and sealed by their respective, duly authorized representatives, as of the day and year first written above.

DEVELOPER:

By: _____
Name:
Title:

**MASSACHUSETTS HOUSING
FINANCE AGENCY, as Subsidizing
Agency as aforesaid**

By: _____
Gregory P. Watson, AICP, Manager,
Comprehensive Permit Programs

Attachments:

- Exhibit A – Legal Description
- Appendix A – Rent Schedule
- Appendix B – Subsidizing Agency Fees

Acknowledgment of Zoning Board of Appeals

COMMONWEALTH OF MASSACHUSETTS

County of Suffolk _____, 20__

Then personally appeared before me, the undersigned notary public, the above-named Gregory P. Watson the Manager of Comprehensive Permit Programs of the Massachusetts Housing Finance Agency, as Subsidizing Agency as aforesaid, proved to me through satisfactory identification which was my own personal knowledge of identity of the signatory to be the person whose name is signed on the preceding document, and acknowledged to me that he/she signed it voluntarily for its stated purpose as the Director of Comprehensive Permit Programs of the Massachusetts Housing Finance Agency.

Before me,

Notary Public
My Commission Expires: _____

STATE OF _____

County of

_____, 20__

Then personally appeared before me _____, the _____ of _____, proved to me through satisfactory evidence of identification, which was [] a current driver's license, [] a current U.S. passport, [] my personal knowledge, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose as his/her free act and deed, in such capacity, before me

Notary Public

My Commission Expires:

EXHIBIT A
LEGAL DESCRIPTION

APPENDIX A
RENT SCHEDULE (INITIAL)
 [Sample/Model]

Low-Income / Rental Assisted At or Below ____ % of AMI Rental Assisted <i>[Delete Columns if N/A]</i>	Low/Moderate-Income ¹ Rent Set at 30% of 80% AMI Qualify with Incomes at or Below 80% of AMI	Market Rate Unrestricted
--	---	---------------------------------

Number of Bedrooms	<u>1 BR</u>	<u>2 BR</u>	<u>3 BR</u>	<u>1 BR</u>	<u>2 BR</u>	<u>3 BR</u>	<u>1 BR</u>	<u>2 BR</u>	<u>3 BR</u>
Number of Units	#	#	#	#	#	#	#	#	#
Net SF/Unit	---	-,---	-,---	---	-,---	-,---	---	-,---	-,---
Elev. (E) / Non-Elev. (N)	E or N	E or N	E or N	E or N	E or N	E or N	E or N	E or N	E or N
Applicable Base/Gross Rent:	\$-,---	\$-,---	\$-,---	\$-,---	\$-,---	\$-,---	\$-,---	\$-,---	\$-,---
Per: <u>[Identify²]</u> MSA or HMFA									
Utility Allowance**	\$---	\$---	\$---	\$---	\$---	\$---	N/A	N/A	N/A
Tenant Rent*	30% of adjusted gross income			\$-,---	\$-,---	\$-,---	\$-,---	\$-,---	\$-,---

* **Tenant Rents** are net of utility allowances. The total of tenant rent and utility allowance may not exceed the Applicable Base/Gross Rent.

****Utility Allowances** are based on the attached schedule or matrix prepared by the [Town Name] Housing Authority and dated _____, as the same may be amended from time to time. The dollar amount listed assumes the following utilities are to be paid by the tenant: *[list all that apply or "All utilities included in rent."]*
 [Oil, Gas or Electric] Heat for the [e.g. "Low-Rise – Garden"] Housing Type;
 [Oil, Gas or Electric] Water Heating; [Gas or Electric] Cooking Fuel; and Electricity

The following utilities are to be paid by the owner/landlord and included in the rent: *[list all that apply or "none"]*
 [Oil, Gas or Electric] Heat for the [e.g. "Low-Rise – Garden"] Housing Type;
 [Oil, Gas or Electric] Water Heating; [Gas or Electric] Cooking Fuel; and Electricity

[If alternative method for calculation of utility allowances is employed, describe here in detail.]

¹ Maximum NEF Ch. 40B affordable unit Rent Limits are calculated based on 30% of the 80% of the Area Median Income (AMI) Limit as derived from income limits published annually by HUD. Changes to the published income limits will result in changes to the rent limits. Unless subsidized under another housing subsidy program, the 80% of AMI Limit also is the standard used to qualify for occupancy at NEF Ch. 40B affordable housing developments.

² Identify subject income limit area, i.e. Metropolitan Statistical Area (MSA) or HUD Metro FMR Areas (HMFA) – See "Area" definition.

APPENDIX B

FEE PAYABLE TO SUBSIDIZING AGENCY

- **Masshousing NEF Rental Regulatory Agreement Affordability and Limited Dividend Monitoring Fees**
 - Initial Fee Due upon Execution of the Regulatory Agreement by MassHousing
 - \$7,500
 - Annual Fee Payable at the time of Initial Occupancy and Annually thereafter
 - \$200 per affordable unit per year

ACKNOWLEDGEMENT OF ZONING BOARD OF APPEALS

The undersigned duly authorized Chairman and members of the _____ Zoning Board of Appeals hereby acknowledges that, after due consideration of the Developer’s request, pursuant to the requirements of 760 CMR 56.05(11), the Board hereby agrees that the foregoing Regulatory Agreement satisfies the requirements of the Comprehensive Permit as defined therein. Without limiting the generality of the foregoing, the units in the Development required to be affordable under the Comprehensive Permit shall be affordable if such units are rented in accordance with Section 3, 4 and 5 of the foregoing Regulatory Agreement; any local preference set forth in the Comprehensive Permit shall be implemented only to the extent in compliance with applicable state and federal fair housing rules; and compliance with the limited dividend requirement shall be determined solely by the Subsidizing Agency under the Regulatory Agreement using the standards of the Subsidizing Agency applicable to comprehensive permit projects in accordance with the Comprehensive Permit Rules. In addition, the conflict provision of the Regulatory Agreement shall control over any conflict provision of the Comprehensive Permit.

Name:
Chairman, _____ Zoning Board of Appeals

Name:

Name:

Name:

Name:

COMMONWEALTH OF MASSACHUSETTS

_____ County, ss.

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____, the Chairman of the _____ Zoning Board of Appeals, proved to me through satisfactory evidence of identification, which was [a current driver’s license] [a current U.S. passport] [my personal knowledge], to be the person whose name is signed on the preceding instrument and acknowledged the foregoing instrument to be his or her free act and deed.

Notary Public
My commission expires:

ELMROCK ESTATES
GRAFTON, MASSACHUSETTS

WAIVER REQUEST LIST

September 13, 2016

RULES & REGULATIONS GOVERNING THE SUBDIVISION OF LAND

A general waiver is sought from all site plan approval requirements under Planning Board's jurisdiction where the project will be reviewed by the Zoning Board of Appeals per the Comprehensive Permit and M.G.L. Ch. 40B regulations.

3.3.3.19 Waive the stormwater management hydrological study, including all calculations, shall be submitted by the applicant which satisfies the Design requirements of Section 4 of these Regulations, as well as the Regulations of the Grafton Conservation Commission. The analysis and design of stormwater management systems shall be based, at a minimum, on the methods contained in the United States Soil Conservation Service URBAN HYDROLOGY for SMALL WATERSHEDS, Technical Release Number 55. The design shall describe the impacts of the 2 year, 10 year, and 100 year 24-hour rainfalls. The maximum length which is to be used for sheet flow shall be 75 feet, unless otherwise justified. Drainage calculations and design shall be prepared by a registered professional engineer. All stormwater management designs shall be in conformance with the Town's Stormwater By-Law, as amended.

3.3.4.1 Waive the requirement for an Environmental and Community Impact Analysis (ECIA).

3.3.4.2 Waive the requirement that any waivers from the requirements of these Rules and Regulations which are sought by the applicant, including the citation from the Regulations and a description of the requirements, a justification for each requested waiver, and a thorough description of the harm to be suffered by compliance with these Regulations, and of the benefit(s) to be realized by allowing such waiver(s).

3.3.4.4a Waive the requirement that all tests shall be witnessed by the designated agent of the Planning Board. All information concerning the test pits, borings or soundings (location, depth, soil stratas, depth of water table) shall be submitted to the Board in a written report made, evaluated and stamped by a registered professional engineer, at the time of the Definitive Plan application is filed. The Applicant shall file with the Conservation Commission as appropriate for any testing within areas protected under the Wetlands Protection Act and the Grafton Wetland Protection By-Law prior to such testing.

3.3.4.4.b.1-4 Waive the requirement for test pits, borings or soundings shall be taken along the center line of each street shown on the plan at intervals of at least every two hundred feet (200') and at locations such as cut sections and areas of questionable foundation material, where the subsurface conditions may, in the opinion of the Board, be factors affecting the quality, integrity and service life of the street.

3.3.4.4c Waive the requirement that soil surveys shall include a test excavation not less than seven feet (7') below finished grade at a frequency of one (1) per every four (4) lots, the locations of which shall be shown on the contour plan, and a report thereon.

4.1.3.6 Waive the requirement that streets shall be laid out so as to intersect with adjacent streets or adjacent unsubdivided land at intervals of from six hundred feet (600') to twelve hundred feet (1200').

4.1.4.a Waive the requirement that the minimum width of right-of-way shall be fifty feet (50') for Minor Streets.

4.1.6.3 Waive the requirement that dead end streets and their extensions or segments shall not be longer than five hundred feet (500').

4.1.6.6 Waive the requirement that if a dead end street is subsequently extended beyond the required turn-around, any easement other than land required for the extension of the roadway may be relinquished to the adjacent properties.

4.1.6.8 Waive the requirement for a snow easement and associated curb cut shall be provided along the outside of the turnaround and clearly marked on site at the end of the dead end streets. When the contours of the land make the outside impractical, the snow easement shall be located elsewhere as directed by the Planning Board, with the advice of the Superintendent of Streets. The minimum size of the snow easement shall be fifteen feet (15') deep by thirty feet (30') wide.

4.2.1 Waive the requirement that unless otherwise specified by the Planning Board, granite curbs of the dimensions given for granite curbs (Section M.9.04.1) Type VA4 shall be provided at intersections along the paving edge the distance of arcs of the curves plus a straight section of eight feet (8') at each end of said arcs, along each edge of the roadway where the grade exceeds two percent (2%) and along each edge of the roadway on all curves with a radius of less than two hundred and fifty feet (250').

4.2.2 Waive the requirement that except where granite curbing has been required, the edges of a street shall be provided with a bituminous concrete low profile "Cape Cod" berm along both edges of the roadway for the full length of the roadway.

4.3.1 Waive the requirement that driveways in subdivisions containing one (1) and/or two (2) family dwellings only shall be at least twelve feet (12') wide, have a curb return at the roadway of two feet (2') in radius, and shall have an opening of at least sixteen feet (16') at the gutter line.

4.3.2 Waive the requirement that driveways for multiple dwellings and all non-residential uses shall be at least sixteen feet (16') wide, have a curb return at the roadway of two feet (2') in radius, and shall have an opening of at least twenty feet (20') at the gutter line.

4.3.5 Waive the requirement that driveways or other curb cut openings shall be designed so that surface runoff can neither enter nor leave the road right of way.

4.3.6 Waive the requirement that all curb cuts and Driveway Openings shall be designed and constructed in conformance with the Town of Grafton Driveway Regulations, as may be amended.

4.5.1 Waive the requirement that due regard shall be shown for all natural features, such as trees, wooded areas, water courses, scenic points, historic spots, and similar community assets, which, if preserved, will add attractiveness and value to the subdivision. Any clearing, backfilling, cutting, thinning or other disturbance to trees twelve inches (12") or over in diameter measured four feet (4') above finished ground level located within the street right of way and the minimum front setback

distance or other natural vegetation shall be prohibited unless deemed both proper by the Board and not in conflict or contradiction to the intent of Section 4.9.1. Any such proposed clearing shall be shown on the plan and written reasons therefore may be requested by the Board.

4.5.2 Waive the requirement that tree wells or retaining walls should be installed when and as requested by the Superintendent of Streets for suitable grading around trees. Tree wells or retaining walls shall be of such design as to meet the standards as set forth in the Tree Experts Manual or some similar publication acceptable to the Board.

4.6.1 Waive the requirement that lots shall be prepared and graded in such a manner that development of one lot shall not cause detrimental drainage onto streets either during construction or upon completion. Any necessary drainage easements shall be a minimum width of twenty-five feet (25').

4.7.1.3 Waive the requirement that all drain, sewer, gas, water pipes, telephone, electricity, fire alarm systems, cable TV and other underground utilities and other structures shall be installed to a point a minimum of two (2) feet outside the back edge of the sidewalk, or, if there is none, the line which would otherwise be the required back edge at the property line, before the placing of the sub-base, gravel base course, sidewalks or pavement.

4.7.4 Waive the requirement that gas mains may be installed, if gas connection is available, under the sidewalk or under the grass strip with three feet (3') of cover or as required by the appropriate utility.

4.7.6 Waive the requirement that street lighting shall be located, at a minimum, at intersections and every 300 feet and shall be in accordance with all requirements of the Board of Selectmen and utility provider and as required by the Planning Board.

4.9.1 Waive the requirement that sidewalks, grass plots and trees shall be provided for the full length of each street Sidewalks shall be provided on one side (preferably north, west sides) of Minor Streets and on both sides of Major Streets. Sidewalks shall be at least four (4) feet wide, shall conform to all Access codes, and shall be located as shown on the plans and profiles required by these Regulations.

4.12.1.6 Waive the requirement that, for residential uses, a common driveway shall not serve more than three (3) lots for detached one-family dwellings, or four (4) dwelling units for detached two-family dwellings.

5.1.9 Waive the requirement that the developer shall have obtained the necessary approvals from the Board of Selectmen under Article 13 (Earth Removal) of the By-Laws of the Town of Grafton

5.3.2 Waive the requirement that sewers shall be installed in the center of the street as nearly as practicable at a minimum depth of seven feet six inches (7' 6") of cover in the traveled way.

5.4.1.1 Wave the requirement that the standard depth of catch basins shall be four feet (4') below the invert of the lowest drain. Manholes shall be constructed to the required depth at each junction point and shall be as shown on the plan. Basin and inlet grates shall be of a type approved by the Superintendent of Streets.

5.4.2.1 Waive the requirement that all drain and culvert pipes shall be reinforced concrete pipe at least twelve inches (12") inside diameter.

5.4.3.1 Subdrains shall be bedded in crushed stone, of ¾-inch gradation.

5.5 Waive the requirement that sidewalks shall be constructed of concrete (such as Portland Cement) conforming to MHD specification M4.02.00.

5.13.1 Waive the requirement that the street and pedestrian lights shall be installed to conform to the type and style specified by the Planning Board and the Board of Selectmen.

5.13.2 Waive the requirement that the street and pedestrian light stanchions shall be of a type specified by the Board of Selectmen and the Planning Board and shall be located in the grass plot or median.

5.13.3 Waive the requirement that prior to the issuance of a Certificate of Occupancy (CO) for any lot within the subdivision, a certification shall be submitted to the Building Inspector that all approved streetlights have been installed and energized from the nearest intersection of any subdivision way and an existing street providing access to the subdivision on said subdivision way up to, and within three hundred feet (300') beyond, said lot(s).

CROSS SECTIONS

A general waiver is sought from all Schedules A & B cross sections and details requirements under Planning Board.

EARTH RELOCATION/REMOVAL

Waivers of all Town of Grafton Bylaws and Regulations regarding the removal and/or relocation of earth, where this is a development pursuant to MGL Ch. 40B.

ZONING BYLAWS

3.2.3.1 Waive the regulations that state that a Detached two-family dwelling (one per lot) and a Multi-family dwelling are not allowed in this zone.

3.2.3.2 Waive the minimum lot area requirement.
Waive the minimum frontage requirement.
Waive the minimum setback requirements.

5.9.1 Waive the regulation requiring a Special Permit issued by the Planning Board to allow common driveways.

STORMWATER MANAGEMENT BYLAW

SECTION 2. Applicability. Waive the regulation that this Bylaw applies to any land-disturbing activity in the Town of Grafton defined as Any activity, including clearing and grubbing, that causes a change in the position or location of soil, sand, rock, gravel, or similar earth material.

SECTION 2. Stormwater Management Permit Waive the requirement that land-disturbing activities, whether new development or redevelopment, shall require a Stormwater Management Permit when the project includes excavating, grading, or other activity which disturbs an area of 40,000 or more square feet or a volume of earth resulting in a total quantity equal to or greater than 1,000 cubic yards. The application for a Stormwater Management Permit shall include the submittal of a Stormwater Management Plan to the Conservation Commission. This Stormwater Management Plan shall contain sufficient information for the Commission to evaluate the environmental impact, effectiveness, and acceptability of the measures proposed by the applicant for reducing adverse impacts from stormwater. The Plan shall be designed to meet, at a minimum, the Massachusetts Stormwater Management Standards as set forth in the DEP Stormwater Management Regulations, Volumes I and II and as amended from time to time. The Town of Grafton requires the use of nonstructural stormwater management practices, better site design practices or Low Impact Development (LID) practices, such as reducing impervious cover and the preservation of Open Space and other natural areas, to the maximum extent practicable

SECTION 5. Administration - Permits, Determination, and Conditions Waive the requirement that the Grafton Conservation Commission, as established under M.G.L. C. 40, § 8C shall have authority to administer this Bylaw. The Conservation Commission shall administer, implement and enforce this Bylaw. Any powers granted to or duties imposed upon the Conservation Commission may be delegated in writing by the Conservation Commission to its employees or agents.

SECTION 5. a. Review Waive the requirement that the Commission and its agents shall review all applications for Stormwater Management Permits, conduct inspections, issue a final permit and conduct any necessary enforcement action. The applicant shall submit all additional information requested by the Commission to issue a decision on the application.

SECTION 5.c. Action Waive the requirement that the Commission may:

1. Approve the Stormwater Management Permit application and issue a permit if it finds that the proposed plan will protect water resources and meets the objectives and requirements of this Bylaw;
2. Approve the Stormwater Management Permit application and issue a permit with conditions, modifications or restrictions that the Commission determines are required to ensure that the project will protect water resources and meet the objectives and requirements of this Bylaw;
3. Disapprove the Stormwater Management Permit application and deny the permit if it finds that the proposed plan will not protect water resources or fails to meet the objectives and requirements of this Bylaw.

SECTION 6. Coordination with other Boards. Waive the requirement that following receipt of a completed application, the Commission shall seek review and comments from the Planning Board, Board of Health, Building Inspector, and Department of Public Works. The Commission shall not make a decision on the Stormwater Management Permit until it has received comments from these entities or until 14 days have elapsed after receipt of the application materials without submission of comments thereon.

SECTION 7. a. Application Waive the requirement that a completed application for a Stormwater Management Permit shall be filed with the Commission. A permit, or a determination that a permit is

not required, must be obtained prior to the commencement of land disturbing activity. The permit application requirements are specified in regulations adopted by the Commission.

SECTION 7. b. Public Hearing Waive the requirement that the Commission shall hold a public hearing within 30 days of the receipt of a complete application, with written notice given at the expense of the applicant five days prior to the hearing. The applicant shall also notify abutters by certified mail at least five days prior to the hearing. The Commission shall make the application available for inspection by the public during business hours at the Town Hall. The Commission shall take final action within 21 days from the time of the close of the hearing unless such time is extended by agreement between the applicant and the Commission.

SECTION 8. Operation and Maintenance Plans Waive the requirement that an operation and maintenance plan (O&M Plan) is required at the time of application for all projects subject to a Stormwater Management Permit. The maintenance plan shall be designed to ensure compliance with the Permit and this Bylaw and are met in all seasons and throughout the life of the system. The Commission shall make the final decision on what maintenance option is appropriate in a given situation. The Commission will consider natural features, proximity of site to water bodies and wetland resource areas, extent of impervious surfaces, size of the site, the types of stormwater management structures, and potential need for ongoing maintenance activities when making this decision. The operation and maintenance plan shall remain on file with the Commission and shall be an ongoing requirement. Requirements for the content of the O&M Plan and its implementation are specified in Stormwater Management Rules and Regulations associated with this Bylaw.

SECTION 9. Certificate of Completion Waive the requirement that upon the completion of the activities allowed under a Stormwater Management Permit, the applicant shall notify the Commission and request a final inspection and certificate of completion. The applicant shall submit an as-built plan prepared by a professional land surveyor or registered professional engineer along with certification from a registered professional engineer that all construction has been done in accordance with the approved stormwater management plan.

SECTION 12. Security Waive the requirement that the Commission may require the applicant to post a surety bond, cash, or other acceptable security before the start of any land-disturbing activity. The form of the bond/surety shall be approved by Town Counsel and the Town Treasurer, and be in an amount deemed sufficient by the Commission to insure that the work will be completed in accordance with the permit. Any performance bond or certificate of guarantee shall be executed and maintained by a financial institution, surety, or guaranty company qualified to do business in the Commonwealth.

SECTION 13. Enforcement and Penalties Waive the requirement that the Commission or its authorized agent shall enforce this Bylaw, its regulations, orders, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

SECTION 14. Inspection Waive the requirement that filing an application for a Stormwater Management Permit grants the Commission, or its agent, permission to enter the site of the land-disturbing activity, as permitted by law, to verify the information in the application and to inspect for compliance with permit conditions.

SECTION 15. Fees Waive the requirement that the Commission by regulation shall promulgate an application fee schedule for stormwater management permit applications and completion certificates. The fee schedule shall be reasonably related to the costs of processing, reviewing and acting upon the application. The fee specified in such a fee schedule shall be made payable to the Town of Grafton and shall accompany the permit application or request for certificate of completion. The Commission may require an additional fee for review of any change in or alteration from an approved permit. Said fee shall be paid into a special account set up by the Town Treasurer and may be expended by the Commission for the purpose allocated without further appropriation in accordance with the provisions of M.G.L C. 44, § 55E 1/2.

STORMWATER MANAGEMENT REGULATIONS

Section 4: Applicability Waive the requirement that these Regulations apply to all activities in accordance with the Applicability of Section 2 of the Stormwater Management Bylaw.

Section 5: Permit Procedures, Requirements, and Fees Waive the requirement that projects requiring a Stormwater Management Permit per Section 2 Applicability of the Stormwater Management Bylaw shall be required to submit the materials as specified in this Section, and are required to meet the Performance Standards as specified in Section 6 of these Regulations.

Section 5.D. Fees 1. General Waive the requirement that the Conservation Commission shall obtain with each submission an Application Fee established by the Commission to cover expenses connected with the administration of an application review of the Stormwater Management Permit.

Section 5.E. Public Hearings Waive the requirement that a public meeting will be held within thirty (30) days of the receipt of a Completed Application and shall take final action within thirty (21) days from the close of the hearing unless such time is extended by agreement between the Applicant and the Conservation Commission. Notice of the public meeting shall be given, at the expense of the Applicant, by a publication in a local newspaper of general circulation, by posting, and by hand delivery or a certified mailing, return receipt requested, at least fourteen (5) days prior to the hearing.

Section 5.F. Permit Application Review Procedures Waive the requirement that all applications for a Stormwater Management Permit shall be reviewed and determined by the Conservation Commission.

Section 5.G. Plan Modifications Waive the requirement that the applicant must notify the Conservation Commission in writing of any changes in the Stormwater Management Plan as authorized in the Stormwater Management Permit before any change or alteration is made. If the Conservation Commission determines that the change or alteration is significant, based on the Stormwater Management Standards in Section 7 and accepted construction practices, the Conservation Commission may require that an amendment request with Plan Modifications be filed.

Section 6.A.1 Low Impact Development and Better Site Design

Waive the requirement that the use of non-structural LID Management practices and Better Site Design are encouraged to minimize reliance on structural management measures. The use of Better Site Design and or LID Management Practices may, if approved by the Conservation Commission, also

allow for a reduction in the treatment volume, a reduction of applicable fees associated with the project, or other incentive approved by the Permitting Authority.

Section 6.A.2 Landscape Design Waive the requirement that the site plans and landscape plans for all proposed projects shall take appropriate steps to minimize water use for irrigation and to allow for natural recharge of groundwater. Native species and habitat creating species shall be used in all landscape plans to the maximum extent possible. Invasive species shall not be planted in the Town of Grafton.

Section 6.A.3 Hydrologic Basis for Design Waive the requirement for stormwater facility sizing criteria, the basis for hydrologic and hydraulic evaluation of development and redevelopment sites are as follows:

- b. The rainfall amounts shall be determined using Type III 24-hour storm precipitation as referenced in Technical Release Number 55 and 20. Precipitation amounts shall be defined by NRCC Cornell data.
- c. The minimum time of concentration for street drainage (Rational Method) shall be five (5) minutes.
- d. Water velocities in pipes and gutters shall be between two (2) and ten (10) feet per second, not more than five (5) feet per second on paved surfaces, and not more than four (4) feet per second in vegetated areas.
- f. Off-site areas shall be assessed based on their “pre-developed condition” for computing the water quality volume (i.e., treatment of only onsite areas is Stormwater Regulations Page 15 of 25 May 28, 2013 required). However, if an offsite area drains to a proposed BMP, flow from that area must be accounted for in the sizing of a specific practice.
- g. Off-site areas draining to a proposed facility should be modeled as "present condition" for peak-flow attenuation requirements.
- h. The length of sheet flow used in time of concentration calculations is limited to no more than 50 feet.
- i. Detention time is defined as the time between the center of mass of the inflow hydrograph and the center of mass of the outflow hydrograph.
- j. For purposes of choosing a runoff Curve Number, all pervious lands in the site shall be assumed prior to development to be in “good” hydrologic condition regardless of conditions existing at the time of computation.
- k. Flooding and channel erosion impacts to receiving streams due to land development projects shall be determined at each point of discharge from the development project and such determination shall include any runoff from the balance of the watershed which also contributes to that point of discharge.

Section 6.C. Sensitive Areas – Additional Design Criteria Waive the requirement that Stormwater discharges to Critical Areas with sensitive resources as defined in the Massachusetts Stormwater Management Standard No. 6, and vernal pools, whether certified or not, (providing they meet the standards for certification, are subject to additional criteria, and may need to utilize or restrict certain Stormwater Management practices at the discretion of the Conservation Commission. The Conservation Commission may designate additional Sensitive Areas and specific criteria for these areas by amending these Regulations.

Section 6.D. Discharges to Water Quality Impaired Waters Waive the requirement that the Applicant must determine whether stormwater discharges from the proposed site will contribute, either directly or indirectly, to an impaired water body. Structural and non-structural stormwater BMPs shall be selected that will control the discharge of the pollutants of concern and ensure that the discharges will not cause

any instream exceedances of applicable water quality standards. Pollutants of concern refer to the pollutant identified as causing the impairment.

Section 7 A. Waive the requirement that the application for a Stormwater Management Permit shall include the submittal of a Stormwater Management Plan (Stormwater Report, Erosion and Sediment Control Plan, Operation and Maintenance Plan, Cost Estimate and Timeline) to the Stormwater Regulations Page 16 of 25 May 28, 2013 Conservation Commission prepared in accordance with the criteria established in these Regulations. This Stormwater Management Plan shall contain sufficient information for the Conservation Commission to evaluate the environmental impact, effectiveness, and acceptability of the site planning process and the measures proposed by the applicant for reducing adverse impacts from stormwater runoff. The Stormwater Management Plan shall remain on file with the Conservation Commission.

Section 7.B. Waive the requirement that the Stormwater Management Plan shall fully describe the project in drawings, narrative and calculations. The plan shall bear the stamp and signature of a Professional Engineer (PE) licensed in the Commonwealth of Massachusetts to certify that the Stormwater Management Plan is in accordance with the criteria established in the Stormwater Handbook, the Stormwater Management Bylaw and these Regulations. To demonstrate compliance to the Conservation Commission, the applicant shall include the following in addition to the requirements in the Stormwater Handbook:

1. Stormwater Report

- h. The site's existing & proposed topography with contours at 1-foot intervals;
- i. The existing site hydrology (both groundwater recharge and surface runoff);
- j. A description and delineation of existing stormwater conveyances, impoundments, wetlands, drinking water resource areas, swimming beaches, sensitive areas, vernal pools, NHESP (Natural Heritage and Endangered Species Program) habitat, or other protected resource areas, on or adjacent to the site or into which stormwater flows;
- k. A delineation of 100-year flood plains, if applicable;
- l. The existing and proposed vegetation and ground surfaces with runoff coefficients for each; (including all impervious cover – parking, driveways, etc.)
- m. A drainage area map showing pre- and post-construction watershed boundaries, drainage areas, time of concentration (tc), and stormwater flow paths, including municipal drainage system flows;
- n. A description and drawings of all components of the proposed Stormwater Management system including:
 - i. All measures for the detention, retention or infiltration of water;
 - ii. Description of non-structural BMPs;
 - iii. All measures for the protection of water quality (see Erosion and Control Plan for more details);
 - iv. The structural details for all components of the proposed drainage systems and Stormwater Management facilities;
 - v. Notes on drawings specifying materials to be used, construction specifications, and expected hydrology with supporting calculations;
 - vii. Any other information requested by the Conservation Commission.
- o. Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the Stormwater Handbook. Such calculations shall include:
 - i. Description of the design storm frequency, intensity and duration;
 - ii. Time of concentration;

- iii. Soil Runoff Curve Number (RCN) based on land use and soil hydrologic group;
- iv. Peak runoff rates and total runoff volumes for each watershed area;
- v. Provisions for protecting, during construction, the infiltration capacity of the soil where infiltration is proposed;
- vi. Infiltration rates, where applicable;
- vii. Culvert capacities;
- viii. Flow velocities;
- ix. Data on the increase in rate and volume of runoff for the specified design storms, and
- x. Documentation of sources for all computation methods and field test results.
- p. Landscaping plan describing the woody and herbaceous vegetative stabilization and management techniques to be used within and adjacent to the stormwater practice.

2. The Erosion and Sediment Control Plan (Drawings and Narrative) shall contain the following:

- a. Direction(s) of stormwater flow and approximate slopes anticipated after major grading activities;
- d. Locations where stabilization practices are expected to occur;
- e. Locations where stormwater discharges to a surface water (include all roads, drains and other structures that could carry stormwater to a wetland or other water body, on or offsite); and
- g. Estimation of the total area (in square footage and percentage) and total volume (in cubic feet) expected to be disturbed by excavation, grading or other construction activities (include dedicated off-site borrow and fill areas).
- h. Description of appropriate erosion control measures, the general sequence during the construction process in which the measures will be implemented, and which operator is responsible for the control measure's implementation.
- i. Description of structural practices to divert flows from exposed soils, retain/detain flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
- j. Description of construction and waste materials expected to be stored onsite and a description of controls, including storage practices, to minimize exposure of the materials to stormwater, and spill prevention and response practices.
- k. Description of interim and permanent slope stabilization practices for the site, including a schedule of when the practices will be implemented. Site plans should ensure that existing vegetation is preserved where possible and that disturbed portions of the site are stabilized. Use of impervious surfaces for stabilization should be avoided.
- l. A description of measures to minimize the tracking of sediments and dust off-site.

3. Operation and Maintenance Plan (Drawings and Narrative shall contain the following:

When applicable, Stormwater Management easements will be required for all areas used for offsite stormwater control, unless the Conservation Commission grants a waiver.

- a. The location of the systems and facilities including all stormwater and low impact development best management practices, catch basins, manholes/access lids, pipes, and other stormwater devices;
- b. The location(s) of Stormwater Management easements provided by the property owner(s) as necessary for:
 - i. Access for facility inspections and maintenance;
 - ii. Preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the 100-year storm event;
 - iii. Direct maintenance access by heavy equipment to structures requiring regular maintenance.
- c. The names, addresses and contact information of the property owner;
- d. The names, addresses and contact information of the person(s) responsible for site operation and maintenance;

- e. The person(s) responsible for financing maintenance and emergency repairs;
 - f. A list of easements with the purpose of each; and
 - g. An Inspection and Maintenance Schedule for all stormwater management facilities, including what routine and non-routine maintenance tasks are to be performed, when they are to be conducted, who is to perform them, and to whom to report results (per SECTION, Annual Reports).
 - h. Maintenance Inspections
 - i. Stormwater management facilities and practices included in an O & M Plan with a Maintenance Agreement in accordance with Section 6.M of these Regulations shall undergo ongoing inspections to document maintenance and repair needs and ensure compliance with the requirements of the agreement, the Plan and these Regulations.
 - ii. At a minimum, inspections shall occur once every year. A Maintenance Agreement as specified under Section 6.M of these Regulations between the owner and the Conservation Commission shall be executed for privately owned stormwater management systems that specify the Responsible Party for conducting long term inspections.
 - i. Records of Maintenance and Repair Activities Parties responsible for the operation and maintenance of a stormwater management facility shall provide records of all maintenance and repairs to the Conservation Commission upon request. Parties responsible for the operation and maintenance of a stormwater management facility shall prepare records of the installation and of all maintenance and repairs, and shall retain the records for the most recent five years on site. These records shall be made available to the Conservation Commission annually, during inspection of the facility, and upon request.
4. Budget and Timeline shall contain the following if requested by Commission:
- a. A pre-construction, construction and post-construction budget should be included in the project description. Any variances should be noted and communicated as soon as discovered to the Conservation Commission.
 - b. A timeline should be included in the project description. Any variances should be noted and communicated as soon as discovered to the Conservation Commission.

Section 7.C Waive the requirement that if in the applicant’s opinion one or more of the Stormwater Management Standards or other requirements cannot be reasonably met, the applicant shall provide a detailed explanation in the Stormwater Report. This narrative shall include reasons that the requirement or Standard could not be met and a description of potential consequences if no mitigating measures are provided.

Section 8 Surety Waive the requirement that before the start of any land disturbance or construction activity, the Conservation Commission may require the applicant to furnish a Performance Bond of cash, certified check, a surety bond, irrevocable letter of credit, or other acceptable security to the Town as obligee in a penal sum. The form of the bond shall be approved by Town Counsel, and be in an amount deemed sufficient by the Conservation Commission to ensure that the work will be completed in accordance with the Stormwater Management Permit. If the project is phased, the Conservation Commission may release part of the bond as each phase is completed in compliance with the permit but the bond may not be released to an amount less than 15% of the original amount until the Conservation Commission has received the final inspection report as required by Section 11 of these Regulations and issued a Certificate of Completion.

Section 10: Enforcement Waive the requirement that enforcement powers of the Conservation Commission or an authorized agent of the Conservation Commission are granted in the Stormwater Management Bylaw, Section 13.

Section 10.B. Purchase, Inheritance, or Acquisition of Property Waive the requirement that any person who purchases, inherits or otherwise acquires real estate upon which work has been done in violation of the provisions of the Stormwater Management Bylaw and these Regulations, or in violation of the approved Plans under this Section shall forthwith comply with any such Order, and restore such real estate to its condition prior to such violation, as the Stormwater Agent deems necessary to remedy such violation.

Section 10C. Fines Waive the requirement that any person who violates any provision of the Town of Grafton Stormwater Management Bylaw, these Regulations, or order or permit issued thereunder, may be ordered to correct the violation and/or shall be punished by a fine of not more than \$300.00, excluding the cost of damages. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

Section 11. A. Notice of Construction Commencement Waive the requirement that the applicant must notify the Conservation Commission or its authorized Agent 14 days prior to the commencement of construction.

Section 11. B. Stormwater Management System Installation. Waive the requirement that the applicant must notify the Conservation Commission 14 days in advance of construction of critical components (as defined during hearing process) of any stormwater management facility and before the backfilling of any underground drainage or stormwater conveyance structures

Section 11. C. At the discretion of the Conservation Commission, periodic inspections of the stormwater management system construction shall be conducted by qualified personnel (a professional engineer, or their designee who has been approved by the Conservation Commission). All inspections shall be documented and written reports prepared that contain the following information:

1. The date and location of the inspection;
2. Names, titles, and qualifications of personnel making the inspection;
3. Whether construction is in compliance with the approved Stormwater Management Plan;
4. Variations from the approved construction specifications; and
5. Any other variations or violations of the conditions of the approved Stormwater Management Plan.

Section 11.D.1. Waive the requirement to ensure erosion control practices are in accord with the filed Stormwater Management Plan, Erosion Control Inspections will be conducted by the site owner or an authorized representative at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater from the start of construction until the site is permanently stabilized. Inspection the Conservation Commission to be temporarily stabilized, such as runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or the ground is frozen), or if construction is occurring during seasonal dry periods. The Applicant is required to notify the conservation Commission of any change in inspection frequency, including termination of inspections due to site stabilization.

Section 11.D.2. Waive the requirement for the inspection form which would include:

- a. Name, date, and signature of qualified inspector.
- b. Weather information for the period since the last inspection (or since commencement of construction activity if the first inspection) including a best estimate of the beginning of each storm event, duration of each storm event, approximate amount of rainfall for each storm event (in inches), and whether any discharges occurred;

- c. Location(s) of discharges of sediment or other pollutants from the site;
- d. Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location, and/or location(s) where additional BMPs are needed that did not exist at prior inspection;
- and e. Corrective action required including any changes to the Stormwater Management Plan necessary and implementation dates.

Section 11.D.2. Waive the requirement that if a project requires a Stormwater Pollution Prevention Plan (SWPPP) per the NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) General Permit for Storm Water Discharges From Construction Activities (the most recent EPA Construction General Permit), then the Applicant is required to submit all Inspection Reports to the Conservation Commission. If the Inspection Reports meet the requirements of the most recent Construction General Permit, it will be considered equivalent to the Erosion Control Inspection as described above.

Section 11.E. Waive the requirement that the Conservation Commission or its designee shall inspect the project site at the following stages, at a minimum:

1. Initial Site Inspection: prior to approval of any plan;
2. Stormwater Management System Inspection: An inspection will be made of the completed stormwater management system, prior to backfilling of any underground drainage or stormwater conveyance structures.
3. Final Inspection, following receipt of final As-Built.
 - a. After the stormwater management system has been constructed and before the surety has been released, all applicants are required to submit actual "as built" plans for any stormwater management facilities or practices after final construction is completed and must be certified by a Professional Engineer.
 - b. The Conservation Commission or an authorized agent shall inspect the system to confirm its "as-built" features. This inspector shall also evaluate the effectiveness of the system in an actual storm. If the inspector finds the system to be adequate, he shall so report to the Conservation Commission before a Certificate of Completion is issued.

Section 11.F. 1. Waive the requirement that if the system is found to be inadequate by virtue of physical evidence of operational failure, even though it was built in accordance with the Stormwater Management Plan, it shall be corrected by the applicant before the Certificate of Completion is released. If the applicant fails to act the Conservation Commission may use the surety bond to complete the work.

Section 11.F. 2. Waive the requirement that if the Conservation Commission determines that there is a failure to comply with the plan, the property owner shall be notified in writing of the nature of the violation and the required corrective actions. A Stop Work Order shall be issued until any violations are corrected and all work previously completed has received approval by the Conservation Commission.

Section 12.A. "As-Built" Plans Waive the requirement that within 90 days of completion of the project, the applicant shall submit an on-the-ground surveyed as-built of all structural stormwater controls and treatment best management practices required in Section 7. A Registered Professional Engineer must prepare Asbuilt Plans that show the "as built" conditions, including all final grades, all work completed, including, but not limited to all drainage, elevations, location of all wetland

resource areas, no-disturb zone, tree-shrub lines, and any other areas of work associated with this project developed by contractor. As-built drawings shall be shown as *bolded* overlays on proposed plans in a scale not greater than 50:1. All work deleted, corrections in elevations, and changes in materials, shall be shown on the asbuilt drawings and explained in writing. A Registered Professional Engineer shall certify deviations, if any, from the approved SMP. As-builts shall also be submitted electronically to the Conservation Commission in PDF and GIS format consistent with the current Standard for Digital Plan Submission to Municipalities, published by the Commonwealth's Office of Environmental Information (MassGIS) or as otherwise required by Town of Grafton and compatible with ArcView GIS.

Section 12.B.1 Waive the requirement that upon completion, the Applicant is responsible for certifying that the completed project is in accordance with the approved plans and specifications by submitting As-built Plans to the Conservation Commission. The certification statement shall be based on regular inspections that occurred during construction sufficient to adequately document compliance.

Section 12.B.2 Waive the requirement that easements shall be properly recorded and/or registered at the Worcester County Registry of Deeds before the Conservation Commission can issue a Certificate of Completion.

Section 12.B.3 Waive the requirement that The Conservation Commission will issue a Certificate of Completion to the Applicant certifying completion upon receipt and approval of the final inspection and reports and/or upon otherwise determining that all work of the permit has been satisfactorily completed in conformance with the Stormwater Management Bylaw and these Regulations.

Section 13: Perpetual Inspection and Maintenance Waive the requirement that the owner of the property on which work has been done pursuant to these Regulations for private stormwater management facilities, or any other person or agent in control of such property, shall maintain in good condition and promptly repair and restore all grade surfaces, walls, drains, dams and structures, vegetation, erosion and sedimentation controls, and other protective devices. Such repairs or restoration and maintenance shall be in accordance with approved plans.

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Section I.C.1. Waive the requirement that the permit fees are payable at the time of application. Make check payable to "Town of Grafton Conservation Commission." Filing fees are additive and apply to each activity or portion of activity proposed within a jurisdictional area. Filing fees will be calculated by the applicant per the schedule below. Such fee calculation shall be subject to approval by the Commission. Filing fees are non-refundable. This fee is in addition to the state filing fee and consultant fees.

Section I.C.2 Waive the requirement that all publications, abutter lists and any other fees as required shall be the responsibility of the applicant.

Section I.D. Rules for Hiring Consultants Waive the requirement as provided by GL Ch. 44 § 53G, the Grafton Conservation Commission may impose reasonable fees for the employment of outside consultants, engaged by the Conservation Commission, for specific expert services deemed necessary by the Commission to come to a final decision on an application submitted to the Conservation Commission pursuant to the requirements of the Wetlands Protection Act (GL Ch. 131 § 40), the

Grafton non-zoning wetlands bylaw, Conservation Commission Act (GL Ch. 40 § 8C), or any other state or municipal statute, bylaw or regulation, as they may be amended or enacted from time to time. Funds received by the Conservation Commission pursuant to these rules shall be deposited with the town treasurer who shall establish a special account for this purpose. Expenditures from this special account may be made at the direction of the Conservation Commission without further appropriation as provided in GL Ch. 44 §53G. Expenditures from this account shall be made only in connection with the review of a specific project or projects for which a consultant fee has been collected from the applicant.

Section III.A. General Waive the requirement that any person who desires a Determination as to whether the Bylaw applies to an area, or work to be performed in an area, or who desires to confirm the delineation of wetland boundaries on 3 acres or less shall submit a written request and the appropriate fee to the Commission. Any person who desires to confirm the delineation of wetland boundaries on a parcel of land greater than 3 acres shall submit a written request and the appropriate fee to the Commission and shall, in addition, file with the Commission an Abbreviated Notice of Resource Area Delineation (ANORAD) as specified under MGL Chapter 131, Section 40.

Section III.B. Filing Procedures Waive the requirement that a Request for a Determination of Applicability (RFD) on “Form C” and the appropriate fee shall be submitted to the Commission and received by the Commission at least 7 business days prior to the meeting. Notice of the time and place of the public meeting shall be given by the Commission, at the expense of the applicant, not less than five (5) business days prior to the meeting, by publication in a newspaper of general circulation in the Town.

Section III.C. Notices to Other Departments Waive the requirement that a copy of the Request for Determination shall be provided at the time of filing to the Planning Board, Board of Health, Board of Selectmen, Inspector of Buildings, Town Engineer, and the applicable Board of Water Commissioners, and a cover memo, on” Form J” shall be affixed to each copy submitted. A copy of the notice and an affidavit of the person providing the notice shall be filed with the Commission.

Section III.D. Public Meeting/Request for Determination Waive the requirement that the Commission shall hold a public meeting on the Request for Determination within twenty-one days of the close of the day of the receipt of the Request.

Section III.E. Determination Waive the requirement that prior to making a determination, the Commission may require the submission of additional data deemed pertinent to the determination. The Commission shall issue its determination in writing within 21 days of the close of the public meeting, unless an extension is authorized in writing by the applicant. The Commission’s Determination shall be issued on “Form D”.

Section IV.A. General Waive the requirement that any person who desires review of an Application for Permit shall file with the Commission plans and specifications as required under MGL Chapter 131 Section 40, and as further defined below.

Section IV.B. Filing Procedure Waive the requirement that an original and 2 copies of the application for the permit, Part A and Part B, if applicable, and accompanying plans and appurtenant data, and the appropriate filing fee, payable to the “Town of Grafton Conservation Commission,” shall be sent by certified mail, or hand delivered, to the Grafton Conservation Commission, 30 Providence Road, Grafton, Massachusetts 01519, and shall be on the “Form A” in the appendix. The applicant shall

provide, as part of the application, a certified list of abutters to whom notice has been sent, in accordance with the provisions of Section 5 of the Bylaw. The notice to abutters shall be sent on "Form B". No later than the date of the public hearing, the petitioner shall provide copies of signed receipts from abutters, as proof of notification, plus an affidavit of all to whom notice was given.

Section IV.D. Notice to Town Departments Waive the requirement that at the time of filing the application with the Commission, the applicant shall submit a complete copy of the application and all accompanying data to each of the following departments at Municipal Center, 30 Providence Road, Grafton, MA 01519. A copy of the notice and affidavit of the person providing the notice shall be filed with the Commission.

Planning Board, Board of Health, Inspector of Buildings, Town Engineer, Dept. of Sewer Commissioners, and to: Board of Water Commissioners Grafton Water District 44 Millbury Street Grafton, MA 01519 or (whichever Board is applicable) Board of Water Commissioners South Grafton Water District 8A Main Street S. Grafton, MA 01560

A cover memo, on "Form J" shall be affixed to each submission listed above.

Section V. B.3. Existing Conditions Site Plans Waive the following plan requirements:

- (c) Existing contours at two feet intervals based on the National Geodetic Vertical Datum.
- (d) All existing natural and man-made features including tree lines, rock outcrops, stone walls, fence lines, cart roads, foot paths, overhead and underground utilities, and drainage structures.
- (e) The location of all surface and subsurface water supplies, wells, and septic systems on the property and abutting properties.
- (f) All water courses, water bodies, intermittent streams, vernal pools, springs, open and closed channels, drainage ways with or without a defined channel, storm drains, kettleholes, bordering or isolated land subject to flooding, and freshwater wetlands on the site and within 100 feet of the site and rivers and perennial streams on the site and within 200 feet of the site. The boundaries of these features shall be identified by a wetlands scientist and their locations determined from an on-the-ground field survey performed by a registered land surveyor or registered professional civil engineer.
- (g) Elevations of all natural and man-made drainage structures, waterways and wetlands.
- (h) Flood elevations of all natural and man-made waterways and water bodies are determined from the FEMA, Flood Insurance Rate Maps and Flood Boundary and Floodway Maps. Where the floodplains of wetlands and water bodies have not been mapped by the FEMA, hydrologic and hydraulic calculations must be prepared by a registered professional engineer to determine the boundary of the 2, 10, and 100-year floodplains, Watershed modeling, hydrograph routing, and backwater analysis shall be performed using the nationally recognized modeling techniques developed by the USDA, Soil Conservation Service. The SCS Type III, 24-hour storm shall be used in the drainage calculations. Calculations based on a Rational Method analysis will not be accepted.
- (i) Hydraulic calculations showing the full-flow capacity and velocity of all water courses, open and closed channels, and storm drains flowing into, on and out of the property.
- (j) Soil boundaries as determined from mapping by the USDA, Soil Conservation Service.
- (k) Site plan shall be submitted at a scale of 1"= not more than 50'.
- (l) Soil characteristics in representative portions of the site, including depth of peat, muck and organic matter in wetland areas.
- (m) Maximum groundwater elevations must be given. The calendar dates of measurement, samplings, and percolation tests on non-sewered lots shall be included.

Section V.B.4. Developed Conditions Site Plans Waive the following plan requirements:

- (a) All proposed man-made features including roads, driveways, parking areas, structures, buildings, overhead and underground utilities.
- (b) Subsurface sewage disposal systems.
- (c) Proposed grading and changes in elevation shown with two-foot contours and spot grades.
- (d) All surface and subsurface drainage structures including the location, cross-section, slope, and surface treatment of all drainage channels and the inverts, slope, pipe materials, catch basins, manholes, and end treatment of all storm drains discharging within 100 feet of any wetland or waterway.
- (e) The location and detail of all temporary erosion control devices, diversions, terraces, silt fences, hay bale barriers, and sedimentation basins.

Section V.B.5. Supplemental Documentation Waive the following requirements:

- (c) Where alterations will exceed the maximum allowable thresholds described in 310 CMR 10.00 for land on the lower (10-year) floodplain, bank, land under a water body, or bordering land subject to flooding, or where the alteration of a habitat of a rare species is involved, or where a vernal pool, or other potentially significant wildlife habitat will be altered, a habitat study shall be performed by a qualified wildlife biologist. The habitat study and the design of a compensating wetland/wildlife habitat shall be performed in accordance with 310 CMR 10.60.
- (d) Planting plans, specifications, and construction schedules shall be provided for all area that will be altered within 100 feet of a bordering vegetated wetland. Specifications shall be provided for both temporary and permanent ground covers. Planting of exotic invasive species is prohibited in this area.
- (e) An erosion control plan shall be submitted describing all methods to control erosion and siltation on site, temporarily and permanently. Proposed location of any fill material which will be stored on site must be shown.
- (f) A site-specific phasing plan shall be submitted for all projects disturbing 3 acres or more.
- (g) Where new point source discharges are proposed within 100 feet of a protected resource area, either open channels or closed subsurface system, a comprehensive storm water management system shall be designed that will not impair the value and function of the receiving or downstream water courses, wetlands, surface and groundwater supplies. Stormwater management systems shall be designed to meet the Massachusetts Stormwater Management Standards detailed in the "Stormwater Management Policy" issued by the Massachusetts Department of Environmental Protection on November 18, 1996, and as may be amended from time to time. The applicant must submit a Stormwater Management Plan prepared by a registered Professional Civil Engineer that demonstrates compliance with the DEP Stormwater Management Policy and Town of Grafton regulations. The plan must include a copy of the DEP Stormwater Management Form describing how the project meets the stormwater management standards. The form must be signed and stamped by a registered Professional Civil Engineer.
- (h) Stormwater management systems shall be designed, constructed and operated in accordance with the March 1997 DEP Stormwater Management Handbooks: Volume I, Stormwater Policy Handbook; and Volume II, Stormwater Technical Handbook. In addition, detention basins, wet ponds and infiltration systems shall also be designed to meet the following standards:
 1. The maximum slope of the embankment on both the inside and outside of the basin shall be no steeper than 3 horizontal to 1 vertical.
 2. The minimum width of the top of an earthen embankment shall be twelve (12) feet along the side designed for maintenance access and ten (10) along the remaining sides.
 3. The basin shall be fenced and securely gated to deter unauthorized access. Fencing shall be placed so as not to interfere with the maintenance of the basin.
 4. The basin may not be located within 100 feet of an existing residence.

5. The applicant shall be responsible for securing by way of a covenant, easement, deed restriction, bond, or other legal instrument a perpetual mechanism or fund for the maintenance or repair of the basin by the heirs and assigns of the property on which the basin is located.
6. Forebays shall be sized for a minimum of 0.1 inch runoff/acre times the entire drainage area to the forebay, not just the impervious area.
7. The basin and outlet structures shall be located a minimum distance of 25 feet outside the boundary of all water resource areas and important wildlife habitat areas.
8. The basin shall be designed to intercept overflows from the upstream storm drainage system when the capacity of this collection system is exceeded by the maximum design storm. Diversions, swales, high capacity inlet grates, and other hydraulic improvements may be necessary to successfully collect and transmit flows to the detention basin.
9. The soil structure and composition at the bottom of a wet basin shall be capable of supporting wetlands vegetation within two years following the completion of the storm drainage system.
10. Infiltration systems shall be designed in conjunction with other best management practices that remove at least 80% of the total suspended solids before discharging to the infiltration system.
11. Infiltration-type drainage system shall be located outside the boundary of all protected wetland resource areas and wildlife habitat areas.

Section V.C.1.(b) Waive the requirement that replicated wetlands and compensatory flood storage areas must be excavated and graded to the specifications in the plan prior to the construction that will alter or disturb the wetlands and related surface and ground water resource areas, except in instances where alteration is necessary to create access to replication area. In the event that the creation of such access is necessary, then wetland plants and soils shall be removed and stockpiled for use in replication area. The preparation and planting of replication area shall be completed as soon as is practicable following alteration, but in no event later than 30 days after alteration. Once wetland alteration has commenced, no other work is to be commenced on site until replication area is complete.

Section V.C.1.(c) Waive the requirement that replication is prohibited in areas providing habitat for rare and endangered species as listed by the Massachusetts Natural Heritage Program. The Commission may further prohibit replication in areas determined to be significant wildlife habitat areas.

Section V.C.1.(d) Waive the requirement that the maximum allowable five thousand (5,000) square foot cumulative total disturbance of wetlands that *may* be permitted shall apply to the entire property referenced in the application, and including any abutting property presently or formerly owned by the same owner. The Commission will consider the total cumulative environmental impact of projects segmented by multiple applications, multiple phases, multiple ownerships, or subsequent multiple subdivisions and may impose conditions designed to enforce threshold limitations.

Section V.C.2. Waive the requirement that notwithstanding other provisions of Section V, the Commission may permit the construction and maintenance of a new roadway or driveway of minimum legal and practical width acceptable to Planning Board dimensional standards, where an owner has no alternative means of access from an existing public or private way or across other property of the same owner from an existing public or private way, to any of the upland area on the property. Replication of altered wetlands resources may be required by the Commission to minimize adverse impacts and to protect the interests identified in the By-Law.

Section V.C.3. Waive the requirement that wetlands alterations intended to make lands buildable, as by fulfilling septic system setback requirements, flood elevation requirements, or other minimum

construction setback requirements, or to achieve minimum lot area requirements, or to provide access to multiple upland areas of the same owner, are prohibited.

Section V.C.4. Waive the requirement that alteration and disturbance of adjoining land areas may be permitted on a lot with a total contiguous upland acreage of at least 75 percent of the minimum building lot size for the zoning district in which it is located, provided that such alteration and disturbance is proposed within the portion of the lot containing said contiguous upland acreage. Upland is to be considered as land outside the boundary of any wetland resource areas, proposed wetland replication areas, or water bodies and above the 100-year flood elevation. Detention, retention, and infiltration basins, and other stormwater management structures, including the easement for such structures, are not considered upland. For existing nonconforming lots that are smaller than the minimum building lot size for the zoning district in which they are located, alteration and disturbance of adjoining land areas may be permitted on a lot with a total contiguous upland acreage of at least 75 percent of the total lot area, provided that such alteration and disturbance is proposed within the portion of the lot containing said contiguous upland acreage.

Section V.C.5. Waive the requirement that the Town of Grafton Conservation Commission has determined that activities in the jurisdictional resource area abutting wetlands, water bodies and land subject to flooding as set out in the Bylaw pose a significant risk to the health of such wetland resource areas. The role that a protective buffer zone plays in the maintenance of healthy resource areas is well established. There is a direct relationship between increased nitrogen, phosphorous and pollutant loading to wetlands and water bodies when their watersheds are cleared. Water quality can be better maintained if undisturbed vegetative areas are maintained and preserved along surface water bodies. Adverse impacts from sediment erosion and transport are also minimized with the maintenance of undisturbed vegetation between the site development and the wetland resource area. Further, the transitional assemblage of trees, shrubs, and groundcover found in undisturbed naturally vegetated areas is known to be significant to the support of a greater number of native wildlife species and fauna in the interior of resource areas which they border.

a) Therefore, alteration and disturbance is prohibited within the first 25 feet (measured horizontally outward from the water/wetland resource) of the following resource areas as set out in the Bylaw:

“within 100 feet of any freshwater wetland, vegetative wetland, marsh, wet meadow, bog or swamp; within 100 feet of any bank, beach or flat; any lake, river, pond, stream or estuary; within 100 feet of any lake, river, pond, stream or estuary; any land under said waters; or within 100 feet of any land subject to flooding or inundation by groundwater, surface water, tidal action, or storm flowage.”

b) A minimum setback does not apply to water-access structures (docks, boat ramps, beaches) or wetland dependent structures, fences, unpaved public trails, and alteration necessary for upland access as permitted elsewhere in Section C above. However, the Commission may impose such setbacks as required to protect the interests of the Bylaw.

c) The leaching facility of subsurface sewage disposal systems is prohibited within any portion of the jurisdictional resource areas set out in the bylaw.

d) Underground storage of gasoline, oil, other fuels and hazardous materials is prohibited within any portion of the jurisdictional resource areas set out in the bylaw.

e) For projects involving steep slopes, highly erodible soils, extensive disturbed areas, or hydrologic conditions likely to promote significant erosion, the Commission may require a wider undisturbed buffer to ensure protection of wetland resource areas.

f) Pre-existing activities or structures not meeting these criteria need not be discontinued or removed.

Section VI.A. Waive the requirement that public hearings on applications filed pursuant to the Grafton Wetlands Protection Bylaw and Rules and Regulations may be conducted simultaneously with public hearings held pursuant to MGL Chapter 131, Section 40, as amended.

Section VII.A. Waive the requirement that as part of a permit issue pursuant to the Bylaw, the Conservation Commission shall impose such conditions as are necessary to protect the values of wetlands, related water resources and adjoining land areas under its jurisdiction.

Section VII.B. Waive the requirement that if the Commission deems that the interests stated in the Bylaw are not adequately protected under the terms of the applicant's proposal, the Commission may deny a permit. Where the Commission votes to deny a permit, it shall issue a written decision.

Section VII.C. Waive the requirement that the Commission may require, as a condition of a permit, that certain work shall be performed within specific periods of time.

Section VII.H. Waive the requirement that the Commission may revoke or modify a permit issue under this By-law if any of the following circumstances occurs:

- (1) The applicant and/ or his successors fail(s) to comply with the terms of the permit;
- (2) The applicant and/or his successors fail(s) to comply with the terms of other town permits which have been issued for the project and the issuing authority has requested in writing that the Commission revoke or modify the wetlands permit.

Section XI.A. Bonds of Surety Waive the requirement that the Commission may require the applicant to file a surety company performance bond or a deposit of money in an amount determined by the Commission to be sufficient to cover the cost of all or any part of the site alterations specified in the Permit and/or shown on the plans approved by the Commission. Such bond or surety, if required to be filed or deposited, shall be approved, as to form and manner of execution by the Town Counsel, and as to the sureties by the Town Treasurer, and shall be contingent upon the completion of such alterations within the time frame of the permit and extension, if granted. The Commission will require a bond for projects which include wetland filling, stream crossings, and/or replication and may require a bond for other projects.

Section XI.B. Covenant Waive the requirement that the Commission may require the applicant to secure performance and observance conditions imposed on the project, by a conservation restriction, easement or other covenant enforceable in a court of law, executed and duly recorded by the owner of record, running with the land to the benefit of the Town and members of the public, whereby the permit conditions shall be performed and observed before any lot may be conveyed other than by mortgage deed.

GENERAL WETLANDS PROTECTION BY-LAW – ARTICLE 25

Section 2. Jurisdiction Waive the requirement that except as permitted by the Conservation Commission or as provided in this by-law, no person shall remove, fill, dredge, build upon, or alter the following resource areas: within 100 feet of any freshwater wetland vegetative wetland, marsh, wet meadow, bog or swamp; within 100 feet of any bank, beach or flat; any lake, river, pond, stream or estuary; within 100 feet of any lake, river, pond, stream or estuary; any land under said waters; or

within 100 feet of any land subject to flooding or inundation by groundwater, surface water, tidal action, or storm flowage.

Section 4. Application and Fees Waive the requirement that a written application shall be filed with the Conservation Commission to perform activities affecting resource areas protected by this bylaw. The permit application shall include such information and plans as are deemed necessary by the Commission to describe proposed activities and their effects on the resource areas protected by this bylaw. No activities shall commence without receiving and complying with a permit issued pursuant to this bylaw.

Waive the requirement that the Commission in an appropriate case may accept as the application and plans under this bylaw any application and plans filed under the Wetlands Protection Act (G.L. Ch. 131 s40) and Regulations (310 CMR 10.00). Notwithstanding the aforesaid such applications and plans shall be filed concurrently with any application for a special permit and/or site plan review for any projected located on a priority development site designated as such by vote of Town Meeting under the provisions of G.L. c. 43D (T.M. 5/12/08)

Waive the requirement that notwithstanding the aforesaid, such applications and plans shall be filed concurrently with any application for a special permit and/or site plan review for any project located on a priority development site designated as such by vote of Town Meeting under the provisions of GL c. 43D (T.M. 5/11/09)

Waive the requirement that at the time of an application, the applicant shall pay a filing fee specified in Regulations of the Commission. The fee is in addition to that required by the Wetlands Protection Act and Regulations. Such filing fees shall be deposited in a municipal revolving fund established pursuant to G.L. Ch. 44 s53E1/2 for deposit and for uses set out in the vote establishing the fund. This account shall be kept separate from the account established for filing fees paid under the State Wetlands Protection Act.

Section 5.b. Applications for Permit and Hearings. Waive the requirement that any person filing an application herein referred to with the Commission at the same time shall give written notice thereof, by certified mail (return receipt requested) or hand delivery, to all abutters at their mailing addresses shown on the most recent applicable tax list of the Assessors, including owners of land directly opposite on any public or private street or way, and abutters to the abutters within 300 feet of the property line of the applicant, including any in another municipality or across a body of water. The notice to abutters shall enclose a copy of the application, with plans, or shall state where copies may be examined and obtained by abutters free of charge. An affidavit of the person providing such notice, with a copy of the notice mailed or delivered, shall be filed with the Commission. When a person requesting a hearing herein is other than the owner, the application, the notice of the hearing, and the permit itself shall be sent by the Commission to the owner as well as to the person making the request.

Waive the requirement that the Commission shall conduct a public hearing on any application referred to herein, with written notice given at the expense of the applicant, five working days prior to the hearing, in a newspaper of general circulation in the municipality.

Section 6. Coordination with other Boards Waive the requirement that any person filing a permit application or a request for determination with the Commission shall provide a copy thereof at the same time, by certified mail (return receipt requested) or hand delivery, to the Board of Selectmen,

Planning Board, Board of Health, Town Engineer, Inspector of Buildings, Board of Water Commissioners and State Department of Environmental Quality Engineering. An affidavit of the person providing such notice, with a copy of the notice mailed or delivered, shall be filed with the Commission. The Commission shall not take final action until such boards and officials have had 20 days from receipt of notice to file written comments and recommendations with the Commission, which the Commission shall take into account but which shall not be binding on the Commission. The applicant shall have the right to receive any such comments and recommendations, and to respond to them at a hearing of the Commission, prior to final action. Permit applications for new construction, to include wells and septic systems where applicable, shall show the entire lot and all wetland resources delineated within 100 feet of proposed construction, and lot boundaries. Permit applications not including this information shall be returned as “incomplete”.

Section 7. Permits, Determination, and Conditions Waive the requirement that the Commission is empowered to deny a permit for failure to meet the requirements of this by-law; for failure to submit necessary information and plans requested by the Commission; for failure to meet the design specifications, performance standards, and other requirements in regulations of the Commission; for failure to avoid or prevent unacceptable significant or cumulative effects upon the wetland values protected by this by-law; and where no conditions are adequate to protect those values. Due consideration shall be given to any demonstrated hardship on the applicant by reason of denial, as presented at the public hearing.

Waive the requirement that for good cause the Commission may revoke or modify a permit issued under this by-law after notice to the holder of the permit, notice to the public, abutters, and town boards pursuant to Section 5, and public hearing.

Section 8. Regulations Waive the requirement that after public notice and public hearing the Commission shall promulgate rules and regulations to effectuate the purposes of this by-law. Failure by the Commission to promulgate such rules and regulations or a legal declaration of their invalidity by a court of law shall not act to suspend or invalidate the effect of this by-law. At a minimum these regulations shall define key terms in this by-law not inconsistent with this by-law.

Section 10. Security Waive the requirement that as part of a permit issued under this by-law, in addition to any security required by any other municipal or state board, agency or official, the Commission may require that the performance and observance of the conditions imposed hereunder be secured wholly or in part by one or more of the methods described below:

- a. By a proper bond or deposit of money or other undertaking of financial responsibility sufficient in the opinion of the Commission, to be release in whole or in part upon issuance of a certificate of Compliance for work performed pursuant to the permit;
- b. By a conservation restriction, easement, or other covenant enforceable in a court of law, executed and duly recorded by the owner of record, running with the land to the benefit of this municipality whereby the permit conditions shall be performed and observed before any lot may be conveyed other than by mortgage deed.

Section 11. Enforcement Waive the requirement that the Commission, its agents, officers, and employees shall have authority to enter upon privately owned land for the purpose of performing their duties under this by-law and may make or cause to be made such examination, surveys or sampling as the Commission deems necessary.

Waive the requirement that the Commission shall have authority to enforce this by-law, its regulations, and permits issued thereunder by violation notices, administrative orders, and civil and criminal court actions.

Waive the requirement that any person who violates any provision of this by-law, regulations thereunder, or permits issued thereunder, shall be punished by a fine of not more than \$300.00. Each day or portion thereof during which a violation continues shall constitute a separate offense, and each provision of the by-law, regulation, or permit violated shall constitute a separate offense.

Section 12. Burden of Proof Waive the requirement that the applicant for a permit shall have the burden of proving by a preponderance of the credible evidence that the work proposed in the application will not have unacceptable significant or cumulative effect upon the wetland values protected by this by-law. Failure to provide adequate evidence to the Commission supporting this burden shall be sufficient cause for the Commission to deny a permit or grant a permit with conditions.

The applicant reserves the right to modify this waiver list as necessary for final design.

MEMORANDUM

To: Stephen O' Connell, PE
From: Jennifer Conley, PE, PTOE
Date: August 30, 2016
Project Name: Wheeler Road Traffic Impact Analysis
Project Number: 52779D
Subject: Study Findings

WSP|Parsons Brinckerhoff (PB) accessed the traffic impacts associated with the development of the 36 unit single family homes proposed at 21 Wheeler Road in Grafton, Massachusetts. The townhouses will be accessed via a new driveway that will intersect Wheeler Road at an unsignalized intersection.

The following traffic analysis concentrates on the weekday AM (7:00 AM to 9:00 AM) and weekday PM (4:00 PM to 6:00 PM) commuter peak periods, the critical time periods for a residential development. The analysis focuses on the intersection of Wheeler Road and Route 122 and the proposed site driveway.

EXISTING CONDITIONS

As indicated above, the single family homes will be accessed via a single driveway that will intersect Wheeler Road from the south. In the vicinity of the site, Wheeler Road consists of a single lane in each direction with no lane delineation.

Wheeler Road intersects Route 122 forming a three-way intersection. At its intersection with Route 122, Wheeler Road is controlled by a stop sign. Route 122 consists of a single lane in each direction separated by a double yellow center line.

PB collected traffic volume data in June of 2016. An Automatic Traffic Recorder (ATR) collected traffic volumes for a 24-hour period on Tuesday, June 28, 2016 near the proposed site location. According to the ATR 506 vehicles passed by the proposed site (251 westbound and 255 eastbound). The weekday AM peak hour occurred from 7:45 to 8:45 AM when approximately 38 vehicles passed by the proposed site (12 westbound and 26 eastbound). The weekday PM peak hour occurred from 4:00 to 5:00 PM when approximately 47 vehicles passed by the proposed site (25 westbound and 22 eastbound). During the morning, the majority of traffic (70 percent) on Wheeler Road proceeded eastbound. During the evening, following commuting traffic patterns, the traffic reversed direction and the majority of traffic (65 percent) proceeded westbound).

Turning Movement Counts (TMCs) were conducted at the intersection of Wheeler Road at Route 122 during the AM peak (7:00 to 9:00 AM) and weekday PM (4:00 to 6:00 PM) peak periods. Data collected indicated that the weekday AM peak occurred between 7:45 to 8:45 AM and the weekday PM peak hour occurred between 4:45 to 5:45 PM at the unsignalized intersection of Wheeler Road at Route 122.

In addition to traffic volume data, the ATR collected speed information. The 85th percentile speed or prevailing speed on Wheeler Road was 40 mph from the east and 43 mph from the west.

The traffic volumes collected in June 2016 were evaluated to determine monthly traffic variations. PB researched traffic volume data from MassDOT permanent count stations within the area to determine an appropriate seasonal traffic volume adjustment. Continuous counting data were taken from the closest permanent count stations: 307, located on the Boston Worcester Turnpike (Route 9) just west of Route 20 in Westborough, MA and 3178, located on Route 20 just east of Interstate 290 in Auburn, MA. Based on information from count station 307, June traffic volumes are historically 5 percent higher than average month volumes. Based on 3178, June traffic volumes are historically 4 percent higher than average month volumes. To be conservative, no seasonal adjustment was made to the June traffic volumes. The 2016 Existing weekday AM and PM peak traffic volumes are included in the Appendix.

SITE RELATED TRAFFIC

PB calculated the net increase in traffic expected as a result of the proposed single family homes development. The trips associated with the proposed 36 single family home units were calculated using the Institute of Transportation Engineer’s (ITE) Trip Generation Manual, 9th Edition, rates for Land Use Code (LUC) 210, Single-Family Detached Housing.

Table 1: ITE Trip Generation Summary – 36 Homes

Time Period	In	Out	Total
Weekday Daily	172	172	344
Weekday AM Peak Hour	5	22	27
Weekday PM Peak Hour	29	7	36

Note: Trip generation based on Trip Generation, 9th Edition, published by Institute of Transportation Engineers, 2012. Assumes 36 units of LUC 210, Single-Family Detached Housing.

As shown in Table 1, the proposed homes are expected to generation 344 vehicle trips over the course of a weekday. The project is anticipated to generate 27 vehicles trips (5 in and 22 out) during the weekday AM peak hour and 36 vehicles trips (29 in and 7 out) during the weekday PM peak hour.

TMC data collected at the intersection of Wheeler Road and Meadow Lane was reviewed. Meadow Lane provides access to a residential subdivision similar to the proposed subdivision. Trips from the residential units accessing Wheeler Road are oriented 75 percent to and from the east and 25 percent to and from the west. Based on these trips and travel patterns observed on Route 122, approximately 75 percent of the trips generated from the new site driveway that provides access to the proposed subdivision are oriented to and from the east and 25 percent of the trips are oriented to and from the west.

The trip generation of the proposed subdivision was distributed through the study area based on existing traffic patterns. Approximately 20 percent of the site traffic is expected to travel to and from points west of the site along Wheeler Road and the remaining 80 percent of the site traffic is expected to travel to and from points east of the site. (The trip generation associated with the proposed residential development was added to the 2016 Existing condition peak hour traffic volumes to determine the 2016 Build condition peak hour traffic volumes. The 2016 Build weekday AM and weekday PM peak hours can be found in the Appendix.

INTERSECTION OPERATIONS

The traffic operations of the study area intersections were determined. Analysis was based on methodologies outlined in the Highway Capacity Manual (HCM). Level of Service (LOS) and delays were calculated and are summarized below.

LOS is a calculation of control delay for an intersection. It is an indication of driver discomfort, frustration, fuel consumption, and lost time. LOS is defined by an index from A (free flow) to F (long delays). LOS control delay values are given in Table 2.

For unsignalized intersections, delay values apply only to the controlled movements since the main street movements are not restricted. Control delay is the elapsed time for deceleration, queue time, stopped delay, and final acceleration. Average control delay for unsignalized intersections is a function of the capacity of the approach and the degree of saturation. Synchro 9 software was used as the analysis tool for determining the unsignalized LOS at the study area intersections. Synchro implements the methods of the Highway Capacity Manual to analyze intersection capacity and determine LOS.

Table 2: Level of Service Criteria

	Average Delay (seconds)
Level of Service	Unsignalized Intersections
A	≤ 10
B	>10 and ≤ 15
C	>15 and ≤ 25
D	>25 and ≤ 35
E	>35 and ≤ 50
F	>50

Source: Highway Capacity Manual

The LOS procedures described above were used to determine peak operating LOS at the study area intersections. The existing intersections and future site driveway intersection were analyzed. All backup calculations are provided in the Appendix.

The operations of the unsignalized intersections were determined. Table 3 summarizes the LOS and average delay per vehicle at the stop controlled approaches to unsignalized intersections.

Table 3: Unsignalized Intersections Operations Analysis Summary

	2016 Existing		2016 Build	
	LOS	Delay	LOS	Delay
Wheeler Road at Route 122				
Eastbound Approach				
AM Peak Hour	E	44.9	F	57.1
PM Peak Hour	E	43.6	E	48.8
Northbound Left Turn				
AM Peak Hour	A	8.5	A	8.5
PM Peak Hour	B	10.6	B	10.8
Wheeler Road at Meadow Lane				
Eastbound Approach				
AM Peak Hour	A	0*	A	0*
PM Peak Hour	A	7.3	A	7.3
Southbound Approach				
AM Peak Hour	A	8.7	A	8.8
PM Peak Hour	A	8.7	A	8.8
Wheeler Road at Site Driveway				
Westbound Approach				
AM Peak Hour	N/A	N/A	A	7.3
PM Peak Hour	N/A	N/A	A	7.3
Northbound Approach				
AM Peak Hour	N/A	N/A	A	8.6
PM Peak Hour	N/A	N/A	A	8.6

LOS is Level of Service

Delay is in seconds per vehicle

*zero trips made this movement so no delay is reported

Following HCM guidelines, intersection operations analysis was performed at the study area intersections. The Wheeler Road approach to Route 122 currently operates at LOS E while Route 122 operates at an LOS A during the weekday AM and weekday PM peak hours. With the addition of site related traffic, the intersection approaches at Route 122 are anticipated to operate at LOS B with an increase in about two seconds of delay. The Wheeler Road approach to Route 122 operates with about twelve seconds increase in delay. The Meadow Lane approach to Wheeler Road operates at an LOS A and will continue to operate at the same LOS with the project in place. The site driveway approach to Wheeler Road will operate at LOS A during the weekday AM and weekday PM peak hours.

STOPPING SIGHT DISTANCE

PB has reviewed the available sight lines approaching the proposed driveway to access the residential development and compared them to industry standards. PB measured the available sight lines approaching the site driveway.

The American Association of State Highway and Transportation Officials (AASHTO) calculates the requirements for Stopping Sight Distance (SSD). SSD is the critical measurement of sight lines as the distance a vehicle needs to come to a complete stop to avoid a collision when traveling at a certain speed. In the state of Massachusetts, the assumed speed limit for a road with no posted speed limit is 30 mph. For a posted speed of 30 mph, the required SSD is 200 feet.

Approaching the driveway from the east along Wheeler Road, a motorist can see an object on the proposed site driveway from over 500 feet away. Approaching the driveway from the west along Wheeler Road, a motorist can see an object on the proposed site driveway from approximately 420 feet away. The available SSD meets the 200 feet required approaching the proposed site driveway based on the 30 mph speed limit from either direction.

As outlined above, the 85th percentile speed for vehicles approaching the site driveway is 40 mph from the east along Wheeler Road and 43 mph from the west along Wheeler Road. On a level roadway the SSD for a vehicle traveling 40 mph is 305 feet. The available SSD meets the 305 feet required for vehicles approaching the proposed site driveway at the prevailing speed of 40 mph from the east. The SSD for a vehicle traveling 43 mph is 338 feet. On a level roadway the available SSD meets the 338 feet required for vehicles approaching the proposed site driveway at the prevailing speed of 43 mph from the west.

The downgrade of Wheeler Road approaching the proposed site driveway from the west is approximately six percent. The SSD for a vehicles traveling 43 mph on a road with six percent downgrade is 375 feet. The available SSD is exceeded for the 375 feet required for vehicles approaching the proposed driveway at the prevailing speed of 43 mph from the west. The available SSD is exceeded for the 305 feet required for vehicles approaching the proposed driveway at the prevailing speed of 40 mph from the east.

CONCLUSIONS

The 36 single family home development proposed on Wheeler Road will generate 27 trips during the weekday AM peak hour and 36 trips during the weekday PM peak hour. Although the presumed speed on Wheeler Road was 30 mph, the prevailing travel speed was observed to be 40 mph from the east and 43 mph from the west. The stopping sight distance required for a vehicle to stop to avoid a collision is exceeded at the new proposed driveway location for both the posted and prevailing speed.

The site driveway intersection with Wheeler Road will operate at LOS A with ten seconds or less of delay for vehicles exiting the driveway. The Wheeler Road approach to Route 122 currently operates at LOS E while Route 122 operates at an LOS A during the weekday AM and weekday PM peak hours. With the addition of site related traffic, the Wheeler Road approach will experience a twelve second increase in delay and the Route 122 approaches will experience only a two second delay increase.

21 Wheeler Road
 west of Meadow Lane (West)
 City, State: Grafton, MA
 Client: WSP/Parsons/ S.Srinivas



PRECISION
 D A T A
 INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

165170 A Volume
 Site Code: 52779 D

Start Time	WB		EB		Combin ed		28-Jun-16 Tue
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
12:00	0	3	1	5	1	8	
12:15	0	8	1	5	1	13	
12:30	0	3	0	5	0	8	
12:45	0	3	17	0	2	3	18
01:00	0	4	0	4	0	8	35
01:15	0	1	0	2	0	3	
01:30	0	4	0	4	0	8	
01:45	0	3	12	0	0	2	12
02:00	0	4	0	4	0	8	24
02:15	0	4	0	2	0	6	
02:30	0	2	0	4	0	6	
02:45	0	4	14	0	0	6	16
03:00	0	4	0	3	0	7	
03:15	0	4	0	2	0	6	
03:30	0	6	0	5	0	11	
03:45	0	6	20	0	0	5	15
04:00	0	5	0	5	0	10	
04:15	0	7	0	5	0	12	
04:30	0	3	0	4	0	7	
04:45	1	10	25	0	0	8	22
05:00	0	8	0	2	0	10	
05:15	0	3	2	3	2	6	
05:30	0	6	1	2	1	8	
05:45	0	4	21	1	4	1	8
06:00	1	3	2	5	3	8	29
06:15	1	14	3	9	4	23	
06:30	3	9	1	3	4	12	
06:45	0	3	29	2	8	4	21
07:00	1	4	5	2	6	6	50
07:15	1	4	7	3	8	7	
07:30	2	4	5	3	7	7	
07:45	3	5	17	6	23	8	16
08:00	4	4	5	3	9	7	
08:15	3	4	7	4	10	8	
08:30	2	3	8	2	10	5	
08:45	5	0	11	4	24	0	9
09:00	5	4	2	3	7	7	38
09:15	5	3	3	2	8	5	0
09:30	3	1	2	4	5	5	20
09:45	1	1	9	0	7	2	11
10:00	2	1	5	1	7	2	21
10:15	5	3	7	1	12	4	3
10:30	4	2	3	0	7	2	29
10:45	1	1	7	2	17	1	3
11:00	5	0	0	0	5	0	29
11:15	1	3	6	0	7	3	2
11:30	5	0	4	0	9	0	3
11:45	2	0	3	8	18	1	1
Total	66	185	103	152	169	337	4
Percent	39.1%	54.9%	60.9%	45.1%			
Day Total		251		255		506	
Peak	08:45	-	05:45	-	07:45	-	06:00
Vol.	18	-	30	-	26	-	50
P.H.F.	0.900	-	0.536	-	0.813	-	0.543

21 Wheeler Road
 west of Meadow Lane (West)
 City, State: Grafton, MA
 Client: WSP/Parsons/ S.Srinivas



PRECISION
 D A T A
 INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

165170 A Class
 Site Code: 52779 D

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/28/1														
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
07:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
08:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14
09:00	0	10	1	0	3	0	0	0	0	0	0	0	0	14
10:00	1	6	4	0	0	1	0	0	0	0	0	0	0	12
11:00	0	8	4	0	1	0	0	0	0	0	0	0	0	13
12 PM	0	10	6	0	1	0	0	0	0	0	0	0	0	17
13:00	0	10	1	0	1	0	0	0	0	0	0	0	0	12
14:00	0	8	5	1	0	0	0	0	0	0	0	0	0	14
15:00	0	16	4	0	0	0	0	0	0	0	0	0	0	20
16:00	0	18	6	0	1	0	0	0	0	0	0	0	0	25
17:00	0	18	3	0	0	0	0	0	0	0	0	0	0	21
18:00	0	23	5	0	1	0	0	0	0	0	0	0	0	29
19:00	0	15	2	0	0	0	0	0	0	0	0	0	0	17
20:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11
21:00	0	6	2	0	1	0	0	0	0	0	0	0	0	9
22:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
23:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
Total	1	188	51	1	9	1	0	0	0	0	0	0	0	251
Percent	0.4%	74.9%	20.3%	0.4%	3.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	08:00	10:00		09:00	10:00								08:00
Vol.	1	12	4		3	1								14
PM Peak		18:00	12:00	14:00	12:00									18:00
Vol.		23	6	1	1									29

21 Wheeler Road
 west of Meadow Lane (West)
 City, State: Grafton, MA
 Client: WSP/Parsons/ S.Srinivas



PRECISION
 D A T A
 INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

165170 A Class
 Site Code: 52779 D

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/28/1														
6	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
06:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
07:00	0	19	2	0	2	0	0	0	0	0	0	0	0	23
08:00	0	16	6	0	2	0	0	0	0	0	0	0	0	24
09:00	0	4	2	0	1	0	0	0	0	0	0	0	0	7
10:00	0	13	3	0	0	0	0	0	1	0	0	0	0	17
11:00	0	13	4	0	1	0	0	0	0	0	0	0	0	18
12 PM	0	11	4	0	2	0	0	1	0	0	0	0	0	18
13:00	0	10	0	0	2	0	0	0	0	0	0	0	0	12
14:00	0	9	7	0	0	0	0	0	0	0	0	0	0	16
15:00	0	14	1	0	0	0	0	0	0	0	0	0	0	15
16:00	0	14	5	0	3	0	0	0	0	0	0	0	0	22
17:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
18:00	0	18	3	0	0	0	0	0	0	0	0	0	0	21
19:00	0	14	2	0	0	0	0	0	0	0	0	0	0	16
20:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
21:00	0	9	2	0	0	0	0	0	0	0	0	0	0	11
22:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
23:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	188	52	0	13	0	0	1	1	0	0	0	0	255
Percent	0.0%	73.7%	20.4%	0.0%	5.1%	0.0%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	08:00		07:00				10:00					08:00
Vol.		19	6		2				1					24
PM Peak		18:00	14:00		16:00			12:00						16:00
Vol.		18	7		3			1						22

21 Wheeler Road
 west of Meadow Lane (West)
 City, State: Grafton, MA
 Client: WSP/Parsons/ S.Srinivas



PRECISION
 D A T A
 INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

165170 A Speed
 Site Code: 52779 D

WB	Start Time	14	15	19	20	24	25	29	30	34	35	39	40	44	45	49	50	54	55	59	60	64	65	69	70	9999	Total	85th % ile	Ave Speed	
06/28/																														
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
04:00	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	28	27		
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
06:00	0	0	0	0	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	40	33		
07:00	0	0	0	0	1	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	38	33		
08:00	0	0	0	2	4	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	41	33		
09:00	0	0	0	1	4	4	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	41	33		
10:00	2	0	2	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	36	27		
11:00	1	1	0	3	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	37	30		
12 PM	1	0	1	5	3	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	40	32		
13:00	0	0	0	4	5	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	36	32		
14:00	0	1	1	3	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	37	31		
15:00	0	1	2	1	5	8	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	39	34		
16:00	0	2	1	5	10	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	38	31		
17:00	0	0	1	3	3	8	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	41	36		
18:00	0	0	1	5	6	11	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	40	35		
19:00	0	0	1	1	4	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	41	36		
20:00	1	1	1	0	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	40	31		
21:00	0	1	1	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	37	29		
22:00	0	0	0	1	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	43	37		
23:00	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	46	40		
Total	5	7	15	48	64	66	37	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	251				
%	2.0%	2.8%	6.0%	19.1%	25.5%	26.3%	14.7%	3.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%					
AM Peak	10:00	11:00	08:00	08:00	07:00	11:00	09:00	08:00																			08:00			
Vol.	2	1	2	4	4	4	4	1																			14			
PM Peak	12:00	16:00	15:00	12:00	16:00	18:00	18:00	15:00	12:00																		18:00			
Vol.	1	2	2	5	10	11	6	2	1																		29			

Stats

15th Percentile : 25 MPH
 50th Percentile : 32 MPH
 85th Percentile : 40 MPH
 95th Percentile : 43 MPH

Mean Speed(Average) : 33 MPH
 10 MPH Pace Speed : 30-39 MPH
 Number in Pace : 130
 Percent in Pace : 51.8%
 Number of Vehicles > 35 MPH : 99
 Percent of Vehicles > 35 MPH : 39.4%

21 Wheeler Road
 west of Meadow Lane (West)
 City, State: Grafton, MA
 Client: WSP/Parsons/ S.Srinivas



PRECISION
 D A T A
 INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

165170 A Speed
 Site Code: 52779 D

EB	Start Time	14	15	19	20	24	25	29	30	34	35	39	40	44	45	49	50	54	55	59	60	64	65	69	70	9999	Total	85th % ile	Ave Speed	
06/28/																														
16	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	37	32	
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
05:00	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4	46	39	
06:00	0	0	1	0	2	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	42	36	
07:00	0	0	0	1	1	1	13	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	42	39		
08:00	0	0	2	2	3	7	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	44	37		
09:00	0	0	1	0	0	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	46	38		
10:00	0	2	2	1	4	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	41	33		
11:00	0	0	0	2	11	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	39	34		
12 PM	0	0	1	4	5	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	37	33		
13:00	0	0	1	2	5	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	37	33		
14:00	0	0	0	0	5	5	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	43	38		
15:00	0	0	0	0	4	5	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	45	39		
16:00	0	0	1	3	9	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	38	34		
17:00	0	0	0	3	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	43	34		
18:00	0	0	0	2	6	4	4	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	46	38		
19:00	0	0	0	1	4	3	2	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	48	40		
20:00	1	0	0	2	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	43	33		
21:00	0	0	0	1	1	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	41	37		
22:00	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	41	34		
23:00	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	1	28	27		
Total	1	2	9	27	66	73	47	25	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	255				
%	0.4%	0.8%	3.5%	10.6%	25.9%	28.6%	18.4%	9.8%	1.6%	0.4%	0.0%	0.0%	0.0%	0.0%																
AM Peak		10:00	08:00	08:00	11:00	07:00	07:00	08:00																			08:00			
Vol.		2	2	2	11	13	6	4																			24			
PM Peak	20:00		12:00	12:00	16:00	12:00	14:00	18:00	19:00	18:00																	16:00			
Vol.	1		1	4	9	7	4	4	2	1																	22			

Stats

- 15th Percentile : 28 MPH
- 50th Percentile : 35 MPH
- 85th Percentile : 43 MPH
- 95th Percentile : 47 MPH

Mean Speed(Average) : 36 MPH

10 MPH Pace Speed : 30-39 MPH

Number in Pace : 139

Percent in Pace : 54.5%

Number of Vehicles > 35 MPH : 135

Percent of Vehicles > 35 MPH : 53.1%



PRECISION
D A T A
INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

File Name : 165170 A
Site Code : 52779 D
Start Date : 6/28/2016
Page No : 1

N/S: Worcester Street (Route 122/140)
W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Groups Printed- Cars - Heavy Vehicles

Start Time	Worcester Street (Route 122/140) From North			Worcester Street (Route 122/140) From South			Wheeler Road From West			Int. Total
	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	
07:00 AM	1	79	0	213	0	0	0	7	0	300
07:15 AM	3	98	0	207	0	0	1	13	0	322
07:30 AM	2	97	0	248	0	0	0	8	0	355
07:45 AM	4	118	0	260	1	0	5	10	0	398
Total	10	392	0	928	1	0	6	38	0	1375
08:00 AM	2	117	0	252	2	1	2	9	0	385
08:15 AM	3	116	0	238	0	0	2	12	0	371
08:30 AM	5	128	0	226	2	0	4	8	0	373
08:45 AM	7	119	0	193	2	0	5	6	0	332
Total	17	480	0	909	6	1	13	35	0	1461
Grand Total	27	872	0	1837	7	1	19	73	0	2836
Apprch %	3	97	0	99.6	0.4	0.1	20.7	79.3	0	
Total %	1	30.7	0	64.8	0.2	0	0.7	2.6	0	
Cars	25	805	0	1784	7	1	17	71	0	2710
% Cars	92.6	92.3	0	97.1	100	100	89.5	97.3	0	95.6
Heavy Vehicles	2	67	0	53	0	0	2	2	0	126
% Heavy Vehicles	7.4	7.7	0	2.9	0	0	10.5	2.7	0	4.4

Start Time	Worcester Street (Route 122/140) From North				Worcester Street (Route 122/140) From South				Wheeler Road From West			Int. Total	
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn		App. Total
07:45 AM	4	118	0	122	260	1	0	261	5	10	0	15	398
08:00 AM	2	117	0	119	252	2	1	255	2	9	0	11	385
08:15 AM	3	116	0	119	238	0	0	238	2	12	0	14	371
08:30 AM	5	128	0	133	226	2	0	228	4	8	0	12	373
Total Volume	14	479	0	493	976	5	1	982	13	39	0	52	1527
% App. Total	2.8	97.2	0		99.4	0.5	0.1		25	75	0		
PHF	.700	.936	.000	.927	.938	.625	.250	.941	.650	.813	.000	.867	.959
Cars	13	442	0	455	953	5	1	959	11	37	0	48	1462
% Cars	92.9	92.3	0	92.3	97.6	100	100	97.7	84.6	94.9	0	92.3	95.7
Heavy Vehicles	1	37	0	38	23	0	0	23	2	2	0	4	65
% Heavy Vehicles	7.1	7.7	0	7.7	2.4	0	0	2.3	15.4	5.1	0	7.7	4.3

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



PRECISION
D A T A
INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Worcester Street (Route 122/140)
W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

File Name : 165170 A
Site Code : 52779 D
Start Date : 6/28/2016
Page No : 1

Groups Printed- Cars

Start Time	Worcester Street (Route 122/140) From North			Worcester Street (Route 122/140) From South			Wheeler Road From West			Int. Total
	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	
07:00 AM	0	75	0	205	0	0	0	7	0	287
07:15 AM	3	93	0	202	0	0	1	13	0	312
07:30 AM	2	86	0	238	0	0	0	8	0	334
07:45 AM	4	107	0	251	1	0	5	8	0	376
Total	9	361	0	896	1	0	6	36	0	1309
08:00 AM	2	109	0	250	2	1	2	9	0	375
08:15 AM	3	109	0	233	0	0	2	12	0	359
08:30 AM	4	117	0	219	2	0	2	8	0	352
08:45 AM	7	109	0	186	2	0	5	6	0	315
Total	16	444	0	888	6	1	11	35	0	1401
Grand Total	25	805	0	1784	7	1	17	71	0	2710
Apprch %	3	97	0	99.6	0.4	0.1	19.3	80.7	0	
Total %	0.9	29.7	0	65.8	0.3	0	0.6	2.6	0	

Start Time	Worcester Street (Route 122/140) From North				Worcester Street (Route 122/140) From South				Wheeler Road From West				Int. Total
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	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	4	107	0	111	251	1	0	252	5	8	0	13	376
08:00 AM	2	109	0	111	250	2	1	253	2	9	0	11	375
08:15 AM	3	109	0	112	233	0	0	233	2	12	0	14	359
08:30 AM	4	117	0	121	219	2	0	221	2	8	0	10	352
Total Volume	13	442	0	455	953	5	1	959	11	37	0	48	1462
% App. Total	2.9	97.1	0		99.4	0.5	0.1		22.9	77.1	0		
PHF	.813	.944	.000	.940	.949	.625	.250	.948	.550	.771	.000	.857	.972



PRECISION
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46 Morton Street, Framingham, MA 01702
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File Name : 165170 A
Site Code : 52779 D
Start Date : 6/28/2016
Page No : 1

N/S: Worcester Street (Route 122/140)
W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Groups Printed- Heavy Vehicles

Start Time	Worcester Street (Route 122/140) From North			Worcester Street (Route 122/140) From South			Wheeler Road From West			Int. Total
	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	
07:00 AM	1	4	0	8	0	0	0	0	0	13
07:15 AM	0	5	0	5	0	0	0	0	0	10
07:30 AM	0	11	0	10	0	0	0	0	0	21
07:45 AM	0	11	0	9	0	0	0	2	0	22
Total	1	31	0	32	0	0	0	2	0	66
08:00 AM	0	8	0	2	0	0	0	0	0	10
08:15 AM	0	7	0	5	0	0	0	0	0	12
08:30 AM	1	11	0	7	0	0	2	0	0	21
08:45 AM	0	10	0	7	0	0	0	0	0	17
Total	1	36	0	21	0	0	2	0	0	60
Grand Total	2	67	0	53	0	0	2	2	0	126
Apprch %	2.9	97.1	0	100	0	0	50	50	0	
Total %	1.6	53.2	0	42.1	0	0	1.6	1.6	0	

Start Time	Worcester Street (Route 122/140) From North				Worcester Street (Route 122/140) From South				Wheeler Road From West				Int. Total
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	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	1	4	0	5	8	0	0	8	0	0	0	0	13
07:15 AM	0	5	0	5	5	0	0	5	0	0	0	0	10
07:30 AM	0	11	0	11	10	0	0	10	0	0	0	0	21
07:45 AM	0	11	0	11	9	0	0	9	0	2	0	2	22
Total Volume	1	31	0	32	32	0	0	32	0	2	0	2	66
% App. Total	3.1	96.9	0		100	0	0		0	100	0		
PHF	.250	.705	.000	.727	.800	.000	.000	.800	.000	.250	.000	.250	.750



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File Name : 165170 A
Site Code : 52779 D
Start Date : 6/28/2016
Page No : 1

N/S: Worcester Street (Route 122/140)
W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Groups Printed- Peds and Bicycles

Start Time	Worcester Street (Route 122/140) From North				Worcester Street (Route 122/140) From South				Wheeler Road From West				Int. Total	
	Right	Thru	Peds EB	Peds WB	Thru	Left	Peds WB	Peds EB	Right	Left	Peds NB	Peds SB		
07:00 AM	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	1	0	1
07:30 AM	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	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	2
08:00 AM	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
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:45 AM	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	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	2	1	3
Apprch %	0	0	0	0	0	0	0	0	0	0	0	66.7	33.3	
Total %	0	0	0	0	0	0	0	0	0	0	0	66.7	33.3	

Start Time	Worcester Street (Route 122/140) From North					Worcester Street (Route 122/140) From South					Wheeler Road From West					Int. Total
	Right	Thru	Peds EB	Peds WB	App. Total	Thru	Left	Peds WB	Peds EB	App. Total	Right	Left	Peds NB	Peds SB	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	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	1	0	1	1
07:30 AM	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	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.500



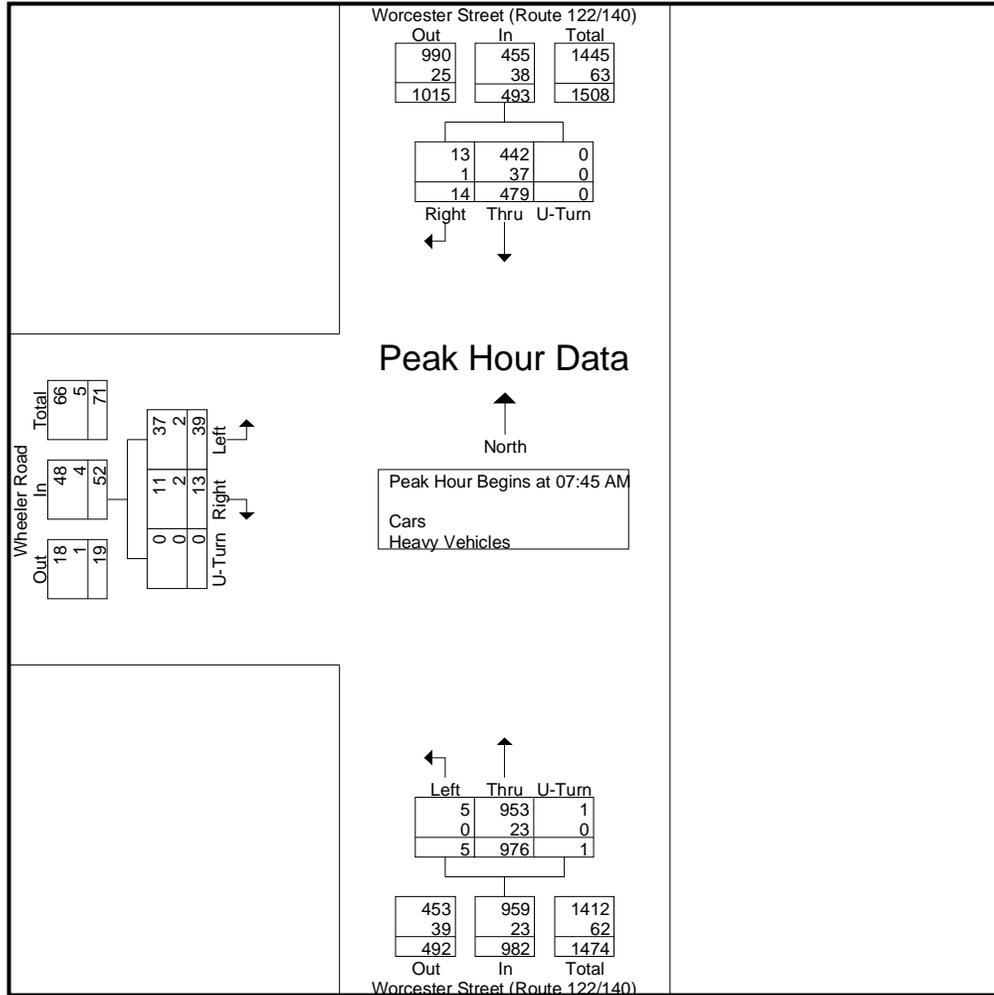
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Page No : 1

N/S: Worcester Street (Route 122/140)
W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Start Time	Worcester Street (Route 122/140) From North				Worcester Street (Route 122/140) From South				Wheeler Road From West				Int. Total
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	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	4	118	0	122	260	1	0	261	5	10	0	15	398
08:00 AM	2	117	0	119	252	2	1	255	2	9	0	11	385
08:15 AM	3	116	0	119	238	0	0	238	2	12	0	14	371
08:30 AM	5	128	0	133	226	2	0	228	4	8	0	12	373
Total Volume	14	479	0	493	976	5	1	982	13	39	0	52	1527
% App. Total	2.8	97.2	0		99.4	0.5	0.1		25	75	0		
PHF	.700	.936	.000	.927	.938	.625	.250	.941	.650	.813	.000	.867	.959
Cars	13	442	0	455	953	5	1	959	11	37	0	48	1462
% Cars	92.9	92.3	0	92.3	97.6	100	100	97.7	84.6	94.9	0	92.3	95.7
Heavy Vehicles	1	37	0	38	23	0	0	23	2	2	0	4	65
% Heavy Vehicles	7.1	7.7	0	7.7	2.4	0	0	2.3	15.4	5.1	0	7.7	4.3





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File Name : 165170 AA
Site Code : 52779 D
Start Date : 6/28/2016
Page No : 1

N/S: Worcester Street (Route 122/140)
W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Groups Printed- Cars - Heavy Vehicles

Start Time	Worcester Street (Route 122/140) From North			Worcester Street (Route 122/140) From South			Wheeler Road From West			Int. Total
	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	
04:00 PM	7	219	0	126	5	0	6	3	0	366
04:15 PM	6	214	0	150	3	0	2	4	0	379
04:30 PM	3	235	0	158	1	0	2	2	0	401
04:45 PM	11	230	0	179	5	0	5	5	0	435
Total	27	898	0	613	14	0	15	14	0	1581
05:00 PM	14	228	0	178	0	0	0	1	0	421
05:15 PM	6	228	0	177	4	0	6	5	0	426
05:30 PM	5	257	0	173	2	0	2	3	0	442
05:45 PM	5	236	0	157	3	0	1	1	0	403
Total	30	949	0	685	9	0	9	10	0	1692
Grand Total	57	1847	0	1298	23	0	24	24	0	3273
Apprch %	3	97	0	98.3	1.7	0	50	50	0	
Total %	1.7	56.4	0	39.7	0.7	0	0.7	0.7	0	
Cars	56	1824	0	1268	23	0	23	23	0	3217
% Cars	98.2	98.8	0	97.7	100	0	95.8	95.8	0	98.3
Heavy Vehicles	1	23	0	30	0	0	1	1	0	56
% Heavy Vehicles	1.8	1.2	0	2.3	0	0	4.2	4.2	0	1.7

Start Time	Worcester Street (Route 122/140) From North				Worcester Street (Route 122/140) From South				Wheeler Road From West			Int. Total	
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn		App. Total
04:45 PM	11	230	0	241	179	5	0	184	5	5	0	10	435
05:00 PM	14	228	0	242	178	0	0	178	0	1	0	1	421
05:15 PM	6	228	0	234	177	4	0	181	6	5	0	11	426
05:30 PM	5	257	0	262	173	2	0	175	2	3	0	5	442
Total Volume	36	943	0	979	707	11	0	718	13	14	0	27	1724
% App. Total	3.7	96.3	0		98.5	1.5	0		48.1	51.9	0		
PHF	.643	.917	.000	.934	.987	.550	.000	.976	.542	.700	.000	.614	.975
Cars	35	933	0	968	693	11	0	704	12	14	0	26	1698
% Cars	97.2	98.9	0	98.9	98.0	100	0	98.1	92.3	100	0	96.3	98.5
Heavy Vehicles	1	10	0	11	14	0	0	14	1	0	0	1	26
% Heavy Vehicles	2.8	1.1	0	1.1	2.0	0	0	1.9	7.7	0	0	3.7	1.5

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM



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N/S: Worcester Street (Route 122/140)
W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

File Name : 165170 AA
Site Code : 52779 D
Start Date : 6/28/2016
Page No : 1

Groups Printed- Cars

Start Time	Worcester Street (Route 122/140) From North			Worcester Street (Route 122/140) From South			Wheeler Road From West			Int. Total
	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	
04:00 PM	7	213	0	125	5	0	6	2	0	358
04:15 PM	6	212	0	141	3	0	2	4	0	368
04:30 PM	3	232	0	155	1	0	2	2	0	395
04:45 PM	10	227	0	178	5	0	5	5	0	430
Total	26	884	0	599	14	0	15	13	0	1551
05:00 PM	14	225	0	175	0	0	0	1	0	415
05:15 PM	6	226	0	169	4	0	6	5	0	416
05:30 PM	5	255	0	171	2	0	1	3	0	437
05:45 PM	5	234	0	154	3	0	1	1	0	398
Total	30	940	0	669	9	0	8	10	0	1666
Grand Total	56	1824	0	1268	23	0	23	23	0	3217
Apprch %	3	97	0	98.2	1.8	0	50	50	0	
Total %	1.7	56.7	0	39.4	0.7	0	0.7	0.7	0	

Start Time	Worcester Street (Route 122/140) From North				Worcester Street (Route 122/140) From South				Wheeler Road From West				Int. Total
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	10	227	0	237	178	5	0	183	5	5	0	10	430
05:00 PM	14	225	0	239	175	0	0	175	0	1	0	1	415
05:15 PM	6	226	0	232	169	4	0	173	6	5	0	11	416
05:30 PM	5	255	0	260	171	2	0	173	1	3	0	4	437
Total Volume	35	933	0	968	693	11	0	704	12	14	0	26	1698
% App. Total	3.6	96.4	0		98.4	1.6	0		46.2	53.8	0		
PHF	.625	.915	.000	.931	.973	.550	.000	.962	.500	.700	.000	.591	.971



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File Name : 165170 AA
Site Code : 52779 D
Start Date : 6/28/2016
Page No : 1

N/S: Worcester Street (Route 122/140)
W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Groups Printed- Heavy Vehicles

Start Time	Worcester Street (Route 122/140) From North			Worcester Street (Route 122/140) From South			Wheeler Road From West			Int. Total
	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	
04:00 PM	0	6	0	1	0	0	0	1	0	8
04:15 PM	0	2	0	9	0	0	0	0	0	11
04:30 PM	0	3	0	3	0	0	0	0	0	6
04:45 PM	1	3	0	1	0	0	0	0	0	5
Total	1	14	0	14	0	0	0	1	0	30
05:00 PM	0	3	0	3	0	0	0	0	0	6
05:15 PM	0	2	0	8	0	0	0	0	0	10
05:30 PM	0	2	0	2	0	0	1	0	0	5
05:45 PM	0	2	0	3	0	0	0	0	0	5
Total	0	9	0	16	0	0	1	0	0	26
Grand Total	1	23	0	30	0	0	1	1	0	56
Apprch %	4.2	95.8	0	100	0	0	50	50	0	
Total %	1.8	41.1	0	53.6	0	0	1.8	1.8	0	

Start Time	Worcester Street (Route 122/140) From North				Worcester Street (Route 122/140) From South				Wheeler Road From West				Int. Total
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	6	0	6	1	0	0	1	0	1	0	1	8
04:15 PM	0	2	0	2	9	0	0	9	0	0	0	0	11
04:30 PM	0	3	0	3	3	0	0	3	0	0	0	0	6
04:45 PM	1	3	0	4	1	0	0	1	0	0	0	0	5
Total Volume	1	14	0	15	14	0	0	14	0	1	0	1	30
% App. Total	6.7	93.3	0		100	0	0		0	100	0		
PHF	.250	.583	.000	.625	.389	.000	.000	.389	.000	.250	.000	.250	.682



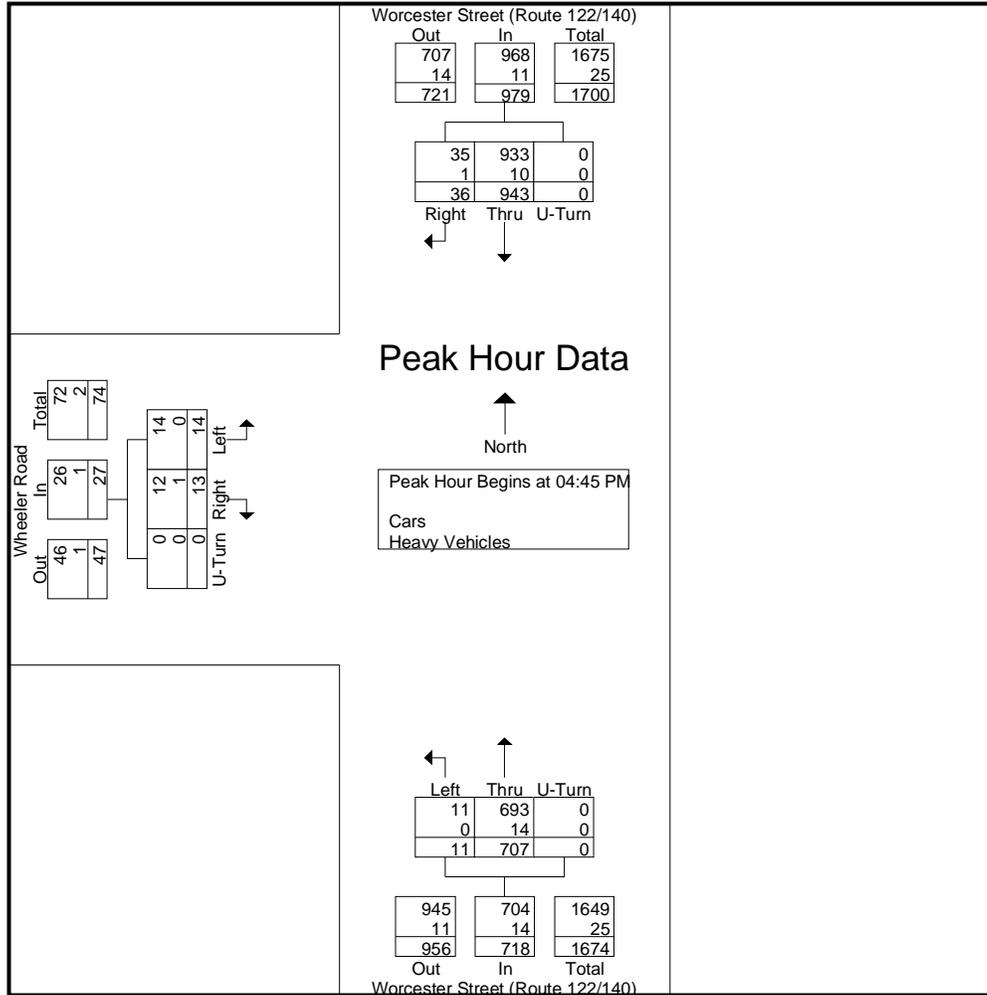
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File Name : 165170 AA
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Page No : 1

N/S: Worcester Street (Route 122/140)
W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Start Time	Worcester Street (Route 122/140) From North				Worcester Street (Route 122/140) From South				Wheeler Road From West				Int. Total
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	11	230	0	241	179	5	0	184	5	5	0	10	435
05:00 PM	14	228	0	242	178	0	0	178	0	1	0	1	421
05:15 PM	6	228	0	234	177	4	0	181	6	5	0	11	426
05:30 PM	5	257	0	262	173	2	0	175	2	3	0	5	442
Total Volume	36	943	0	979	707	11	0	718	13	14	0	27	1724
% App. Total	3.7	96.3	0		98.5	1.5	0		48.1	51.9	0		
PHF	.643	.917	.000	.934	.987	.550	.000	.976	.542	.700	.000	.614	.975
Cars	35	933	0	968	693	11	0	704	12	14	0	26	1698
% Cars	97.2	98.9	0	98.9	98.0	100	0	98.1	92.3	100	0	96.3	98.5
Heavy Vehicles	1	10	0	11	14	0	0	14	1	0	0	1	26
% Heavy Vehicles	2.8	1.1	0	1.1	2.0	0	0	1.9	7.7	0	0	3.7	1.5





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File Name : 165170 B
Site Code : 52779 D
Start Date : 6/28/2016
Page No : 1

N: Meadow Lane (West)
E/W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Groups Printed- Cars - Heavy Vehicles

Start Time	Meadow Lane (West) From North			Wheeler Road From East			Wheeler Road From West			Int. Total
	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	
07:00 AM	0	2	0	0	1	0	5	0	0	8
07:15 AM	0	1	0	0	1	0	7	0	0	9
07:30 AM	0	1	0	0	1	0	5	0	0	7
07:45 AM	0	2	0	0	4	0	6	0	0	12
Total	0	6	0	0	7	0	23	0	0	36
08:00 AM	1	0	0	0	3	0	5	0	0	9
08:15 AM	1	2	0	1	2	0	7	0	0	13
08:30 AM	0	2	0	2	2	0	8	0	0	14
08:45 AM	0	3	0	0	5	0	4	0	0	12
Total	2	7	0	3	12	0	24	0	0	48
Grand Total	2	13	0	3	19	0	47	0	0	84
Apprch %	13.3	86.7	0	13.6	86.4	0	100	0	0	
Total %	2.4	15.5	0	3.6	22.6	0	56	0	0	
Cars	2	13	0	2	18	0	44	0	0	79
% Cars	100	100	0	66.7	94.7	0	93.6	0	0	94
Heavy Vehicles	0	0	0	1	1	0	3	0	0	5
% Heavy Vehicles	0	0	0	33.3	5.3	0	6.4	0	0	6

Start Time	Meadow Lane (West) From North				Wheeler Road From East			Wheeler Road From West			Int. Total		
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left		U-Turn	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	2	0	2	0	4	0	4	6	0	0	6	12
08:00 AM	1	0	0	1	0	3	0	3	5	0	0	5	9
08:15 AM	1	2	0	3	1	2	0	3	7	0	0	7	13
08:30 AM	0	2	0	2	2	2	0	4	8	0	0	8	14
Total Volume	2	6	0	8	3	11	0	14	26	0	0	26	48
% App. Total	25	75	0		21.4	78.6	0		100	0	0		
PHF	.500	.750	.000	.667	.375	.688	.000	.875	.813	.000	.000	.813	.857
Cars	2	6	0	8	2	10	0	12	23	0	0	23	43
% Cars	100	100	0	100	66.7	90.9	0	85.7	88.5	0	0	88.5	89.6
Heavy Vehicles	0	0	0	0	1	1	0	2	3	0	0	3	5
% Heavy Vehicles	0	0	0	0	33.3	9.1	0	14.3	11.5	0	0	11.5	10.4



PRECISION
D A T A
INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

File Name : 165170 B
Site Code : 52779 D
Start Date : 6/28/2016
Page No : 1

N: Meadow Lane (West)
E/W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Groups Printed- Cars

Start Time	Meadow Lane (West) From North			Wheeler Road From East			Wheeler Road From West			Int. Total
	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	
07:00 AM	0	2	0	0	1	0	5	0	0	8
07:15 AM	0	1	0	0	1	0	7	0	0	9
07:30 AM	0	1	0	0	1	0	5	0	0	7
07:45 AM	0	2	0	0	4	0	5	0	0	11
Total	0	6	0	0	7	0	22	0	0	35
08:00 AM	1	0	0	0	3	0	5	0	0	9
08:15 AM	1	2	0	1	2	0	7	0	0	13
08:30 AM	0	2	0	1	1	0	6	0	0	10
08:45 AM	0	3	0	0	5	0	4	0	0	12
Total	2	7	0	2	11	0	22	0	0	44
Grand Total	2	13	0	2	18	0	44	0	0	79
Apprch %	13.3	86.7	0	10	90	0	100	0	0	
Total %	2.5	16.5	0	2.5	22.8	0	55.7	0	0	

Start Time	Meadow Lane (West) From North				Wheeler Road From East				Wheeler Road From West				Int. Total
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	1	0	0	1	0	3	0	3	5	0	0	5	9
08:15 AM	1	2	0	3	1	2	0	3	7	0	0	7	13
08:30 AM	0	2	0	2	1	1	0	2	6	0	0	6	10
08:45 AM	0	3	0	3	0	5	0	5	4	0	0	4	12
Total Volume	2	7	0	9	2	11	0	13	22	0	0	22	44
% App. Total	22.2	77.8	0		15.4	84.6	0		100	0	0		
PHF	.500	.583	.000	.750	.500	.550	.000	.650	.786	.000	.000	.786	.846



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N: Meadow Lane (West)
E/W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Groups Printed- Heavy Vehicles

Start Time	Meadow Lane (West) From North			Wheeler Road From East			Wheeler Road From West			Int. Total
	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	0	0	0	1	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	1	1	0	2	0	0	4
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	1	0	2	0	0	4
Grand Total	0	0	0	1	1	0	3	0	0	5
Apprch %	0	0	0	50	50	0	100	0	0	
Total %	0	0	0	20	20	0	60	0	0	

Start Time	Meadow Lane (West) From North				Wheeler Road From East				Wheeler Road From West				Int. Total
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	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	0	0	0	1	0	0	1	1
08:00 AM	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
08:30 AM	0	0	0	0	1	1	0	2	2	0	0	2	4
Total Volume	0	0	0	0	1	1	0	2	3	0	0	3	5
% App. Total	0	0	0		50	50	0		100	0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.250	.375	.000	.000	.375	.313



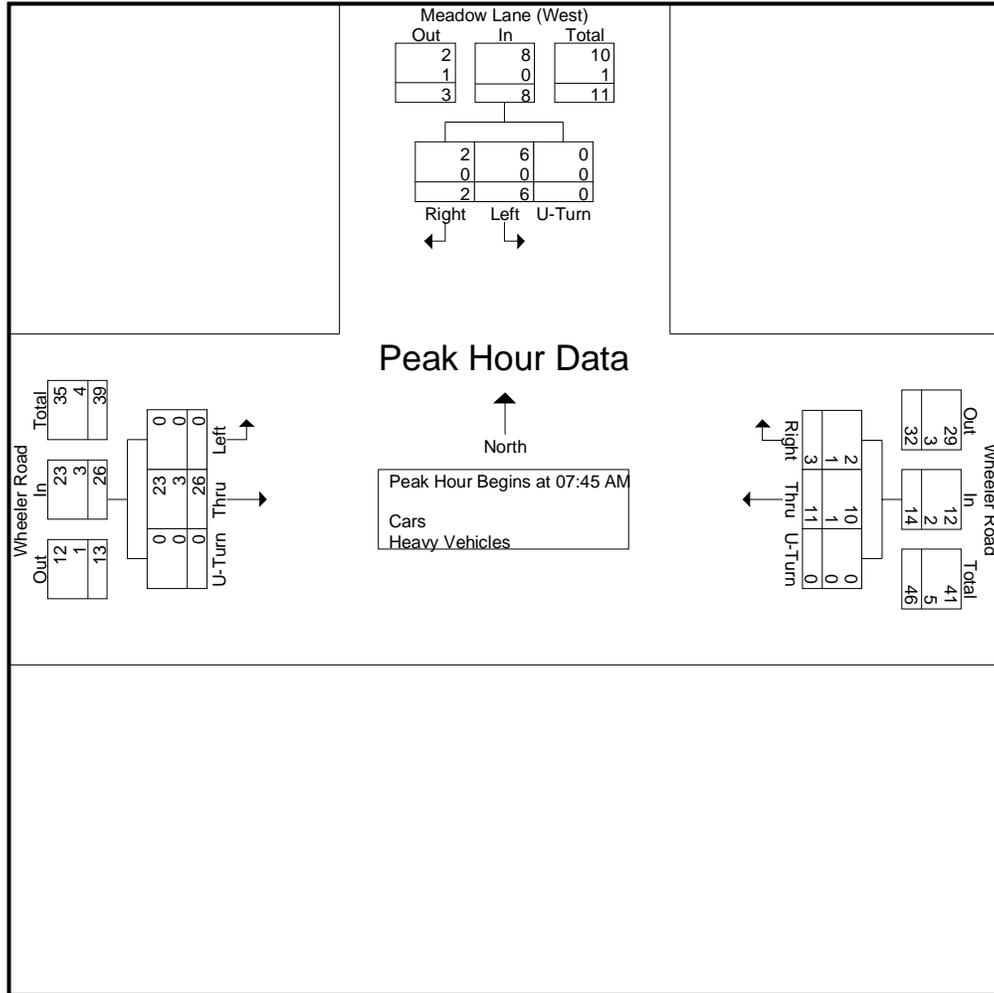
PRECISION
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N: Meadow Lane (West)
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City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Start Time	Meadow Lane (West) From North				Wheeler Road From East				Wheeler Road From West				Int. Total
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	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	2	0	2	0	4	0	4	6	0	0	6	12
08:00 AM	1	0	0	1	0	3	0	3	5	0	0	5	9
08:15 AM	1	2	0	3	1	2	0	3	7	0	0	7	13
08:30 AM	0	2	0	2	2	2	0	4	8	0	0	8	14
Total Volume	2	6	0	8	3	11	0	14	26	0	0	26	48
% App. Total	25	75	0		21.4	78.6	0		100	0	0		
PHF	.500	.750	.000	.667	.375	.688	.000	.875	.813	.000	.000	.813	.857
Cars	2	6	0	8	2	10	0	12	23	0	0	23	43
% Cars	100	100	0	100	66.7	90.9	0	85.7	88.5	0	0	88.5	89.6
Heavy Vehicles	0	0	0	0	1	1	0	2	3	0	0	3	5
% Heavy Vehicles	0	0	0	0	33.3	9.1	0	14.3	11.5	0	0	11.5	10.4





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Start Date : 6/28/2016
Page No : 1

N: Meadow Lane (West)
E/W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Groups Printed- Cars - Heavy Vehicles

Start Time	Meadow Lane (West) From North			Wheeler Road From East			Wheeler Road From West			Int. Total
	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	
04:00 PM	0	0	0	1	5	0	5	0	0	11
04:15 PM	1	0	0	1	6	0	5	0	0	13
04:30 PM	0	0	0	0	3	0	4	0	0	7
04:45 PM	1	0	0	0	9	0	8	0	0	18
Total	2	0	0	2	23	0	22	0	0	49
05:00 PM	0	2	0	0	7	0	1	0	1	11
05:15 PM	0	1	0	2	3	0	3	0	0	9
05:30 PM	0	0	0	1	6	0	2	0	0	9
05:45 PM	1	1	0	1	5	0	1	0	0	9
Total	1	4	0	4	21	0	7	0	1	38
Grand Total	3	4	0	6	44	0	29	0	1	87
Apprch %	42.9	57.1	0	12	88	0	96.7	0	3.3	
Total %	3.4	4.6	0	6.9	50.6	0	33.3	0	1.1	
Cars	3	4	0	6	43	0	27	0	1	84
% Cars	100	100	0	100	97.7	0	93.1	0	100	96.6
Heavy Vehicles	0	0	0	0	1	0	2	0	0	3
% Heavy Vehicles	0	0	0	0	2.3	0	6.9	0	0	3.4

Start Time	Meadow Lane (West) From North				Wheeler Road From East			Wheeler Road From West			Int. Total		
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left		U-Turn	App. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	1	5	0	6	5	0	0	5	11
04:15 PM	1	0	0	1	1	6	0	7	5	0	0	5	13
04:30 PM	0	0	0	0	0	3	0	3	4	0	0	4	7
04:45 PM	1	0	0	1	0	9	0	9	8	0	0	8	18
Total Volume	2	0	0	2	2	23	0	25	22	0	0	22	49
% App. Total	100	0	0		8	92	0		100	0	0		
PHF	.500	.000	.000	.500	.500	.639	.000	.694	.688	.000	.000	.688	.681
Cars	2	0	0	2	2	22	0	24	21	0	0	21	47
% Cars	100	0	0	100	100	95.7	0	96.0	95.5	0	0	95.5	95.9
Heavy Vehicles	0	0	0	0	0	1	0	1	1	0	0	1	2
% Heavy Vehicles	0	0	0	0	0	4.3	0	4.0	4.5	0	0	4.5	4.1



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Start Date : 6/28/2016
Page No : 1

N: Meadow Lane (West)
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City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Groups Printed- Cars

Start Time	Meadow Lane (West) From North			Wheeler Road From East			Wheeler Road From West			Int. Total
	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	
04:00 PM	0	0	0	1	5	0	4	0	0	10
04:15 PM	1	0	0	1	6	0	5	0	0	13
04:30 PM	0	0	0	0	3	0	4	0	0	7
04:45 PM	1	0	0	0	8	0	8	0	0	17
Total	2	0	0	2	22	0	21	0	0	47
05:00 PM	0	2	0	0	7	0	1	0	1	11
05:15 PM	0	1	0	2	3	0	2	0	0	8
05:30 PM	0	0	0	1	6	0	2	0	0	9
05:45 PM	1	1	0	1	5	0	1	0	0	9
Total	1	4	0	4	21	0	6	0	1	37
Grand Total	3	4	0	6	43	0	27	0	1	84
Apprch %	42.9	57.1	0	12.2	87.8	0	96.4	0	3.6	
Total %	3.6	4.8	0	7.1	51.2	0	32.1	0	1.2	

Start Time	Meadow Lane (West) From North				Wheeler Road From East				Wheeler Road From West				Int. Total
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	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	1	0	0	1	1	6	0	7	5	0	0	5	13
04:30 PM	0	0	0	0	0	3	0	3	4	0	0	4	7
04:45 PM	1	0	0	1	0	8	0	8	8	0	0	8	17
05:00 PM	0	2	0	2	0	7	0	7	1	0	1	2	11
Total Volume	2	2	0	4	1	24	0	25	18	0	1	19	48
% App. Total	50	50	0		4	96	0		94.7	0	5.3		
PHF	.500	.250	.000	.500	.250	.750	.000	.781	.563	.000	.250	.594	.706



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File Name : 165170 BB
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Start Date : 6/28/2016
Page No : 1

N: Meadow Lane (West)
E/W: Wheeler Road
City, State: Grafton, MA
Client: WSP/Parsons/ S. Srinivas

Groups Printed- Heavy Vehicles

Start Time	Meadow Lane (West) From North			Wheeler Road From East			Wheeler Road From West			Int. Total
	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	
04:00 PM	0	0	0	0	0	0	1	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	1	0	1	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1
Grand Total	0	0	0	0	1	0	2	0	0	3
Apprch %	0	0	0	0	100	0	100	0	0	
Total %	0	0	0	0	33.3	0	66.7	0	0	

Start Time	Meadow Lane (West) From North				Wheeler Road From East				Wheeler Road From West				Int. Total
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	1	0	1	1	0	0	1	2
% App. Total	0	0	0		0	100	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.250	.000	.000	.250	.500

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



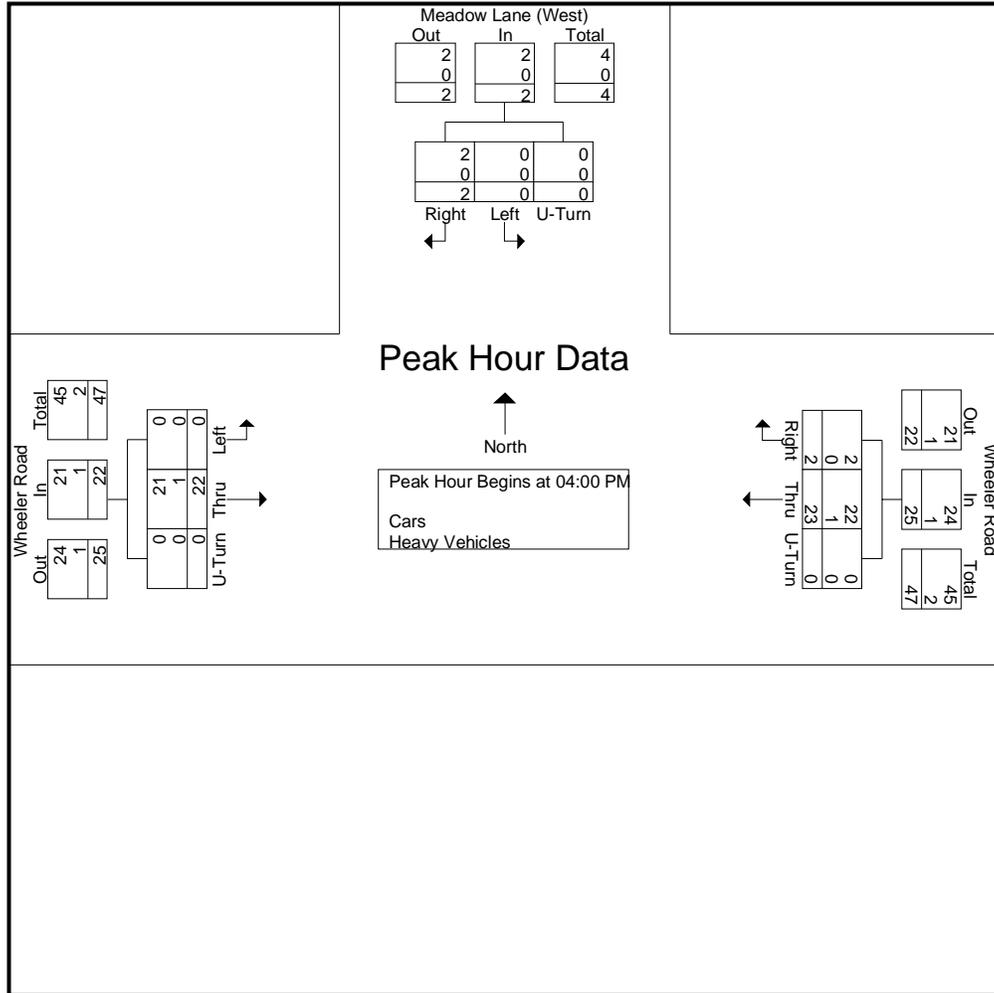
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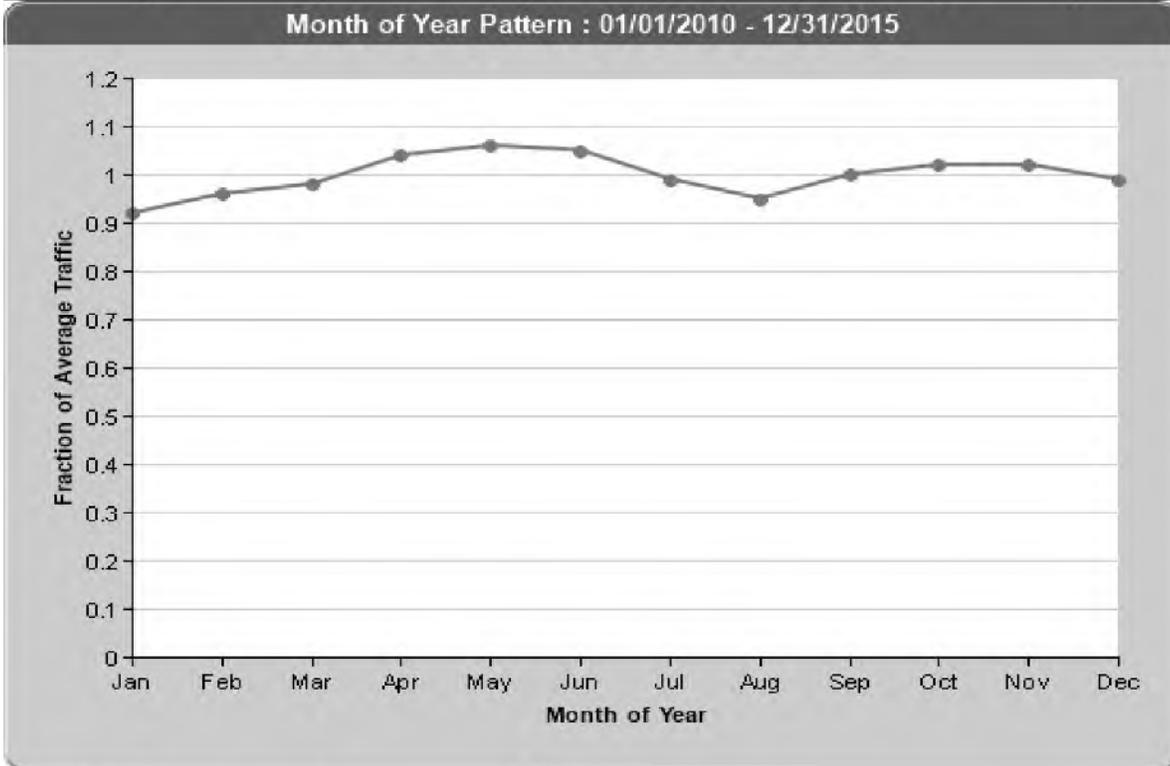
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Start Time	Meadow Lane (West) From North				Wheeler Road From East				Wheeler Road From West				Int. Total
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	1	5	0	6	5	0	0	5	11
04:15 PM	1	0	0	1	1	6	0	7	5	0	0	5	13
04:30 PM	0	0	0	0	0	3	0	3	4	0	0	4	7
04:45 PM	1	0	0	1	0	9	0	9	8	0	0	8	18
Total Volume	2	0	0	2	2	23	0	25	22	0	0	22	49
% App. Total	100	0	0		8	92	0		100	0	0		
PHF	.500	.000	.000	.500	.500	.639	.000	.694	.688	.000	.000	.688	.681
Cars	2	0	0	2	2	22	0	24	21	0	0	21	47
% Cars	100	0	0	100	100	95.7	0	96.0	95.5	0	0	95.5	95.9
Heavy Vehicles	0	0	0	0	0	1	0	1	1	0	0	1	2
% Heavy Vehicles	0	0	0	0	0	4.3	0	4.0	4.5	0	0	4.5	4.1



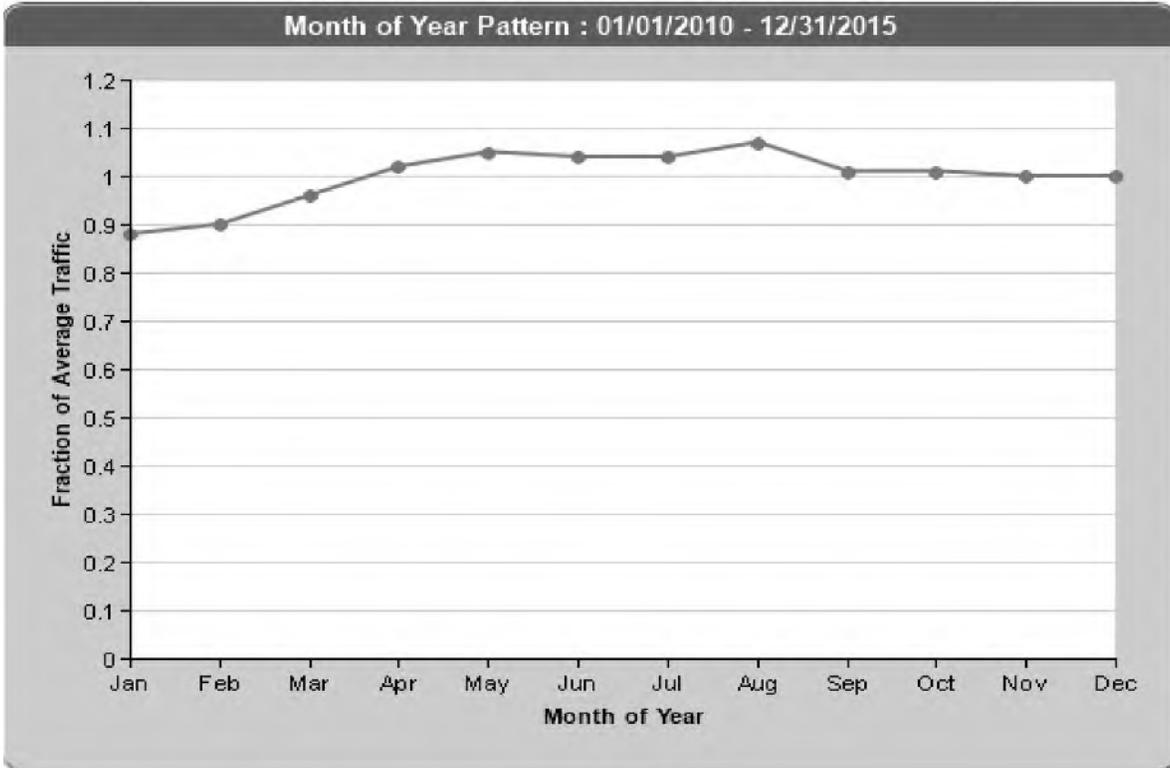
Loc ID	County	Community	On	From	To	At	Dir
307	WORCESTER	WESTBOROUGH	BOSTON WORCESTER TURNPIKE			NORTHBOROUGH	2-WAY



Month of Year	Average	Fraction
January	44,980	0.92
February	46,948	0.96
March	48,176	0.98
April	51,320	1.04
May	52,070	1.06
June	51,521	1.05
July	48,707	0.99
August	46,671	0.95
September	49,159	1
October	50,122	1.02
November	49,875	1.02
December	48,619	0.99

June
 volumes July volumes
 5% higher 1% lower

Loc ID	County	Community	On	From	To	At	Dir
3178	WORCESTER	AUBURN	WASHINGTON STREET			SOUTH ST.	2-WAY



Month of Year	Average	Fraction
January	18,218	0.88
February	18,565	0.9
March	19,805	0.96
April	20,988	1.02
May	21,654	1.05
June	21,562	1.04
July	21,452	1.04
August	22,119	1.07
September	20,863	1.01
October	20,937	1.01
November	20,661	1.00
December	20,634	1.00

June volumes 4% higher
 July volumes 4% higher

TRIP GENERATION WORKSHEET

x= Dwelling Units LUC: Single-Family Detached Housing (210)

WEEKDAY

Average Rate = <input type="text" value="9.52"/>	Fitted Curve Equation = $\ln(T) = 0.92 \cdot \ln(X) + 2.72$
Total Trips = <input type="text" value="342.72"/>	Total Trips = <input type="text" value="410.28"/>

AM PEAK HOUR of ADJACENT STREET

Average Rate = <input type="text" value="0.75"/>	Fitted Curve Equation = $T = 0.70 \cdot X + 9.74$
Total Trips = <input type="text" value="27"/>	Total Trips = <input type="text" value="34.94"/>
25% of Trips In = <input type="text" value="7"/>	25% of Trips In = <input type="text" value="9"/>
75% of Trips Out = <input type="text" value="20"/>	75% of Trips Out = <input type="text" value="26"/>

PM PEAK HOUR of ADJACENT STREET

Average Rate = <input type="text" value="1.00"/>	Fitted Curve Equation = $\ln(T) = 0.90 \cdot \ln(X) + 0.51$
Total Trips = <input type="text" value="36"/>	Total Trips = <input type="text" value="41.90"/>
80% of Trips In = <input type="text" value="29"/>	80% of Trips In = <input type="text" value="34"/>
20% of Trips Out = <input type="text" value="7"/>	20% of Trips Out = <input type="text" value="8"/>

AM PEAK HOUR of GENERATOR

Average Rate = <input type="text" value="0.77"/>	Fitted Curve Equation = $T = 0.70 \cdot X + 12.12$
Total Trips = <input type="text" value="27.72"/>	Total Trips = <input type="text" value="37.32"/>
26% of Trips In = <input type="text" value="7"/>	26% of Trips In = <input type="text" value="10"/>
74% of Trips Out = <input type="text" value="21"/>	74% of Trips Out = <input type="text" value="28"/>

PM PEAK HOUR of GENERATOR

Average Rate = <input type="text" value="1.02"/>	Fitted Curve Equation = $\ln(T) = 0.88 \cdot \ln(X) + 0.62$
Total Trips = <input type="text" value="36.72"/>	Total Trips = <input type="text" value="43.53"/>
64% of Trips In = <input type="text" value="24"/>	64% of Trips In = <input type="text" value="28"/>
36% of Trips Out = <input type="text" value="13"/>	36% of Trips Out = <input type="text" value="16"/>

SATURDAY

Average Rate = <input type="text" value="9.91"/>	Fitted Curve Equation = $\ln(T) = 0.93 \cdot \ln(X) + 2.64$
Total Trips = <input type="text" value="356.76"/>	Total Trips = <input type="text" value="392.55"/>

PEAK HOUR of GENERATOR

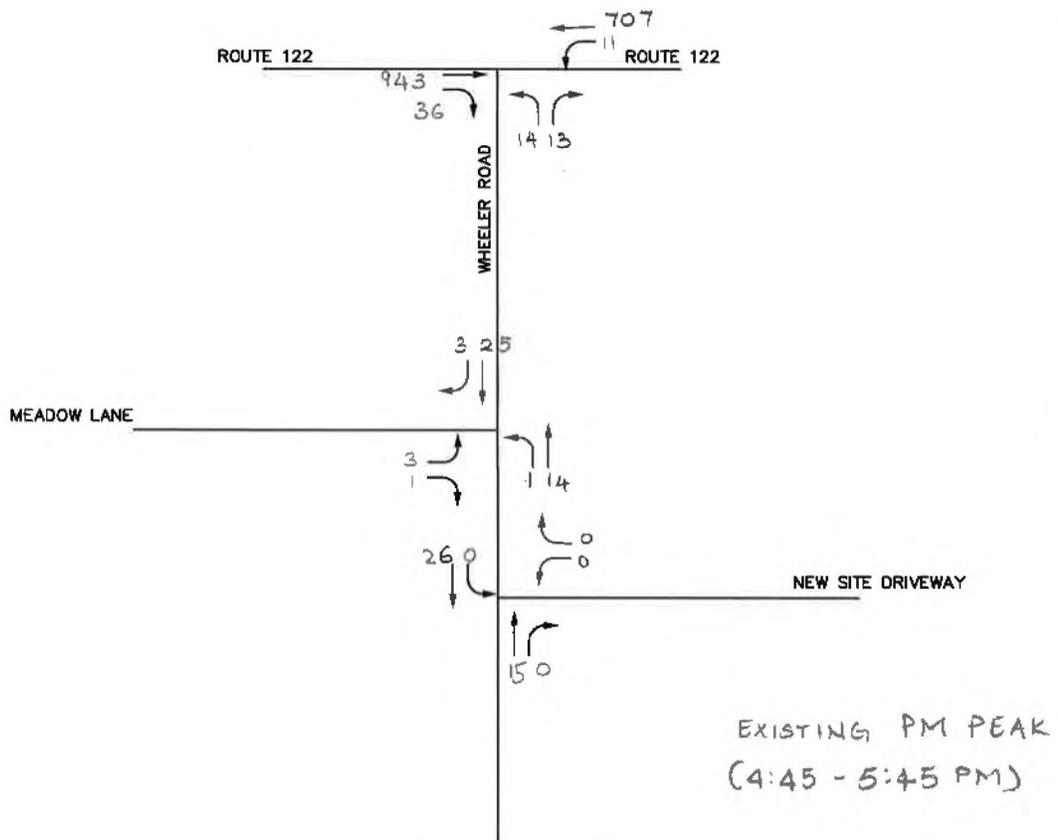
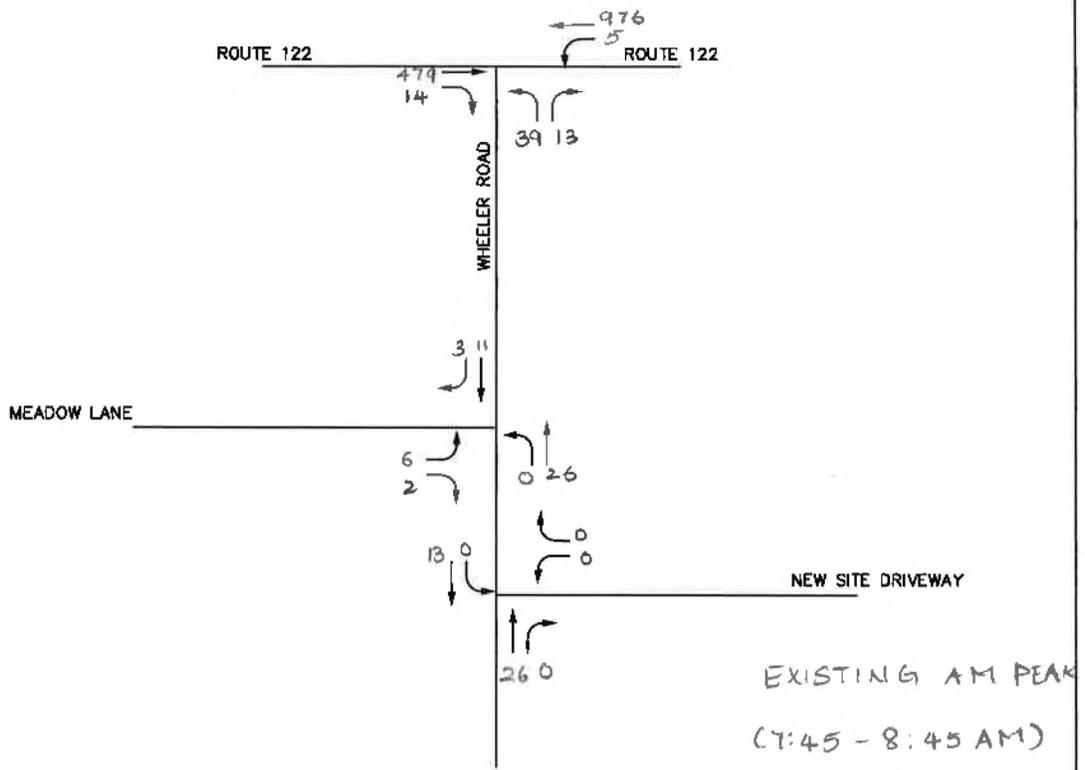
Average Rate = <input type="text" value="0.93"/>	Fitted Curve Equation = $T = 0.89 \cdot X + 8.77$
Total Trips = <input type="text" value="33.48"/>	Total Trips = <input type="text" value="40.81"/>
54% of Trips In = <input type="text" value="18"/>	54% of Trips In = <input type="text" value="22"/>
46% of Trips Out = <input type="text" value="15"/>	46% of Trips Out = <input type="text" value="19"/>

SUNDAY

Average Rate = <input type="text" value="8.62"/>	Fitted Curve Equation = $T = 8.63 \cdot X - 0.63$
Total Trips = <input type="text" value="310.32"/>	Total Trips = <input type="text" value="310.05"/>

PEAK HOUR of GENERATOR

Average Rate = <input type="text" value="0.86"/>	Fitted Curve Equation = $\ln(T) = 0.91 \cdot \ln(X) + 0.31$
Total Trips = <input type="text" value="30.96"/>	Total Trips = <input type="text" value="35.55"/>
53% of Trips In = <input type="text" value="16"/>	53% of Trips In = <input type="text" value="19"/>
47% of Trips Out = <input type="text" value="15"/>	47% of Trips Out = <input type="text" value="17"/>



NOT TO SCALE

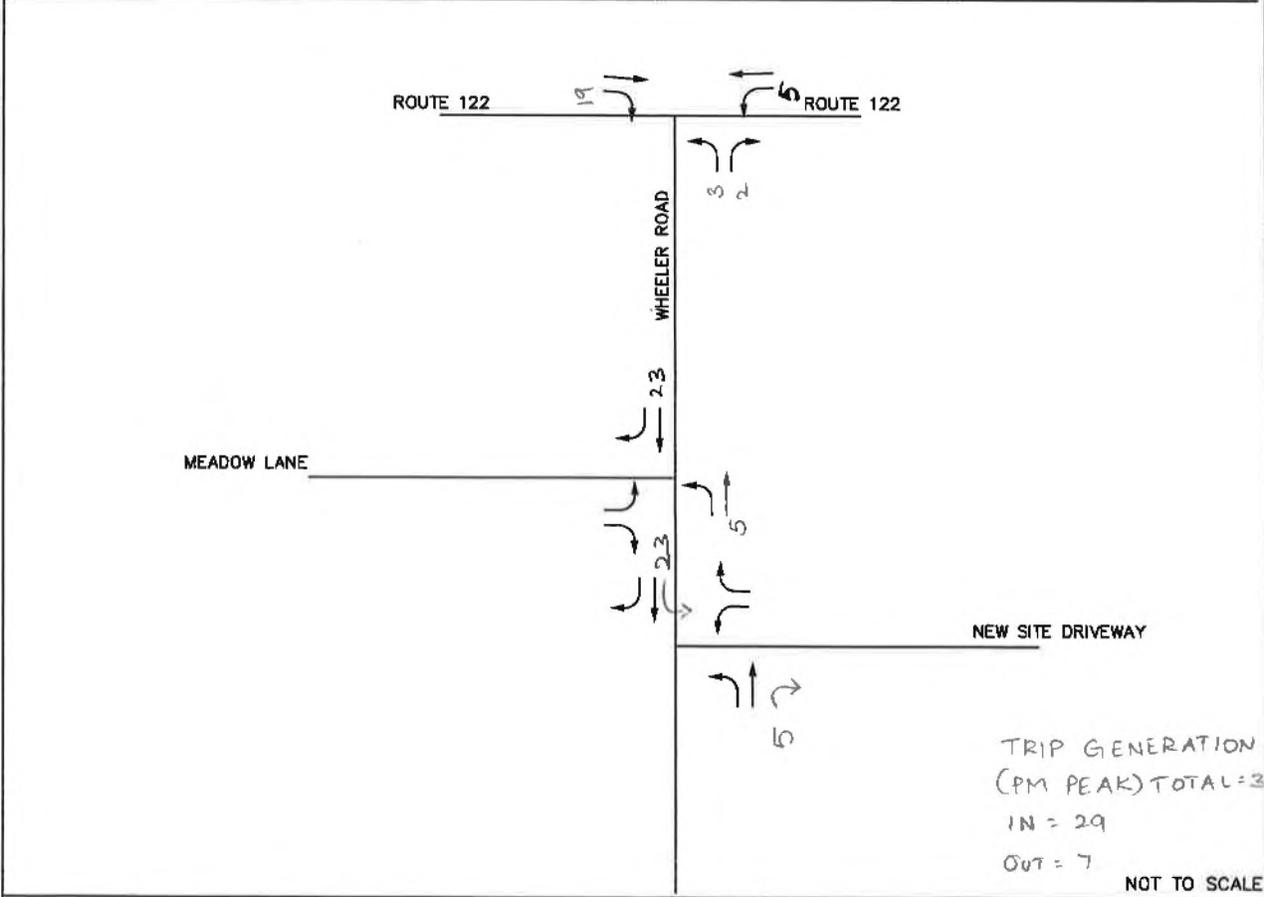
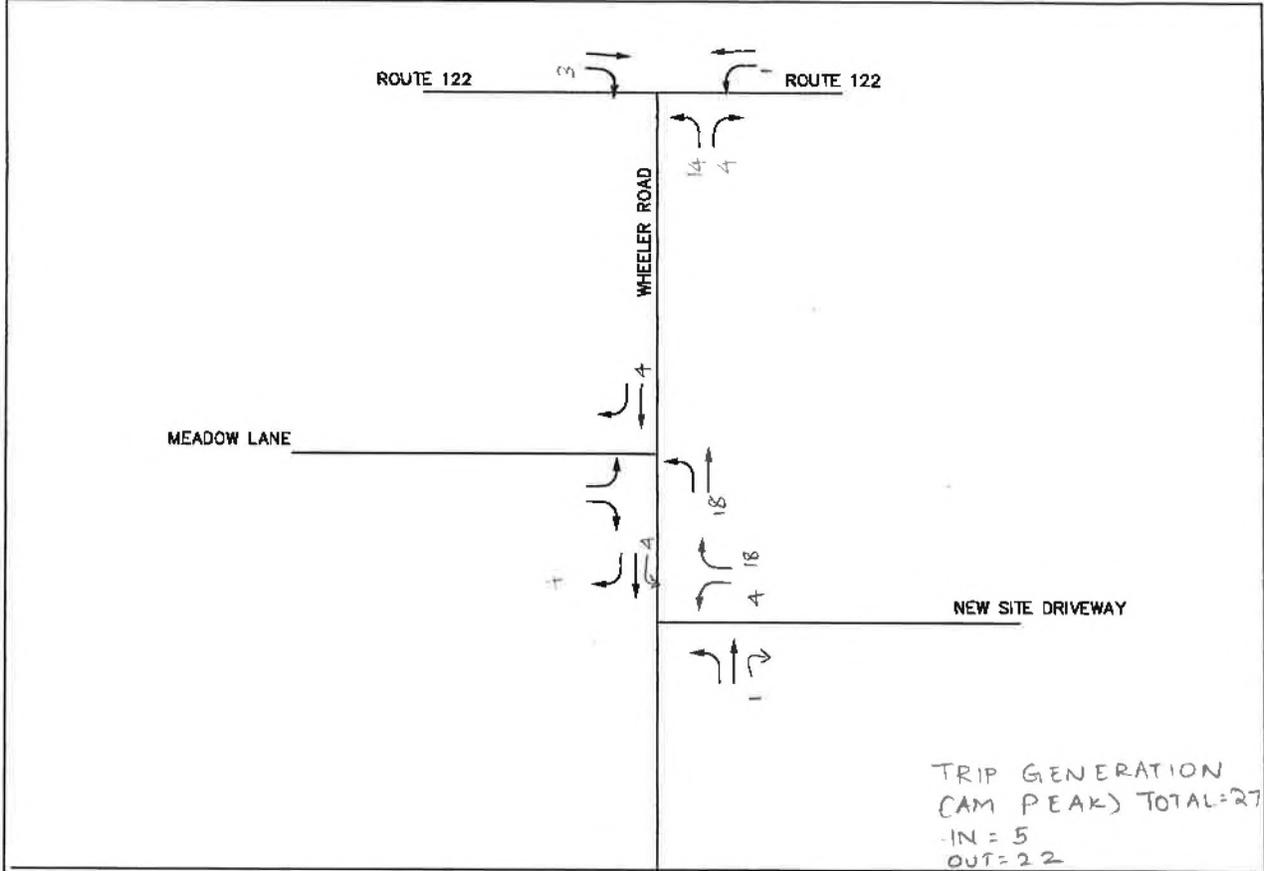


75 Arlington Street, 9th Floor
Boston, MA 02116



WHEELER ROAD SUBDIVISION
PEAK HOUR TRAFFIC VOLUMES
GRAFTON, MA

PROJ. NO.: 527790 DATE: 07/06/2016



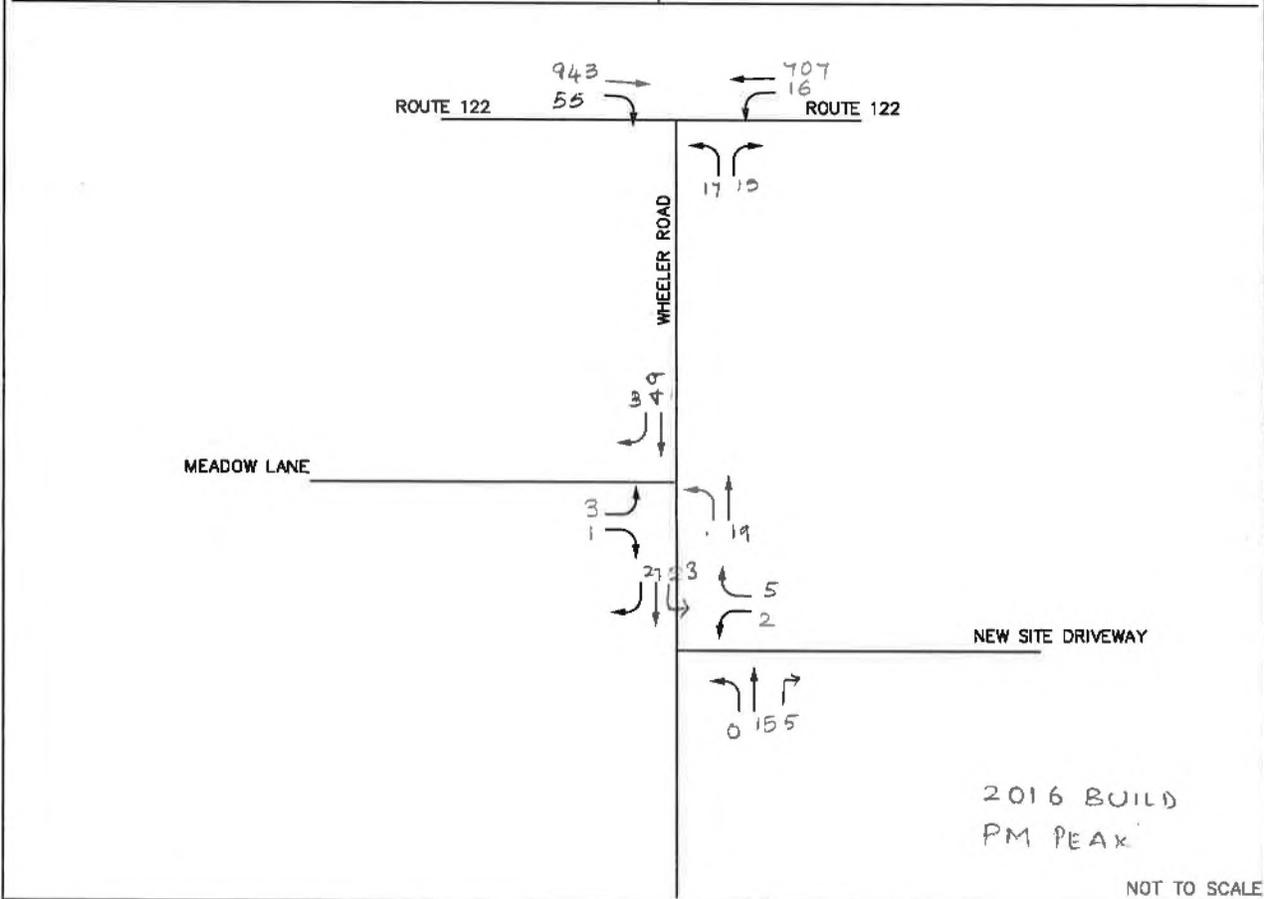
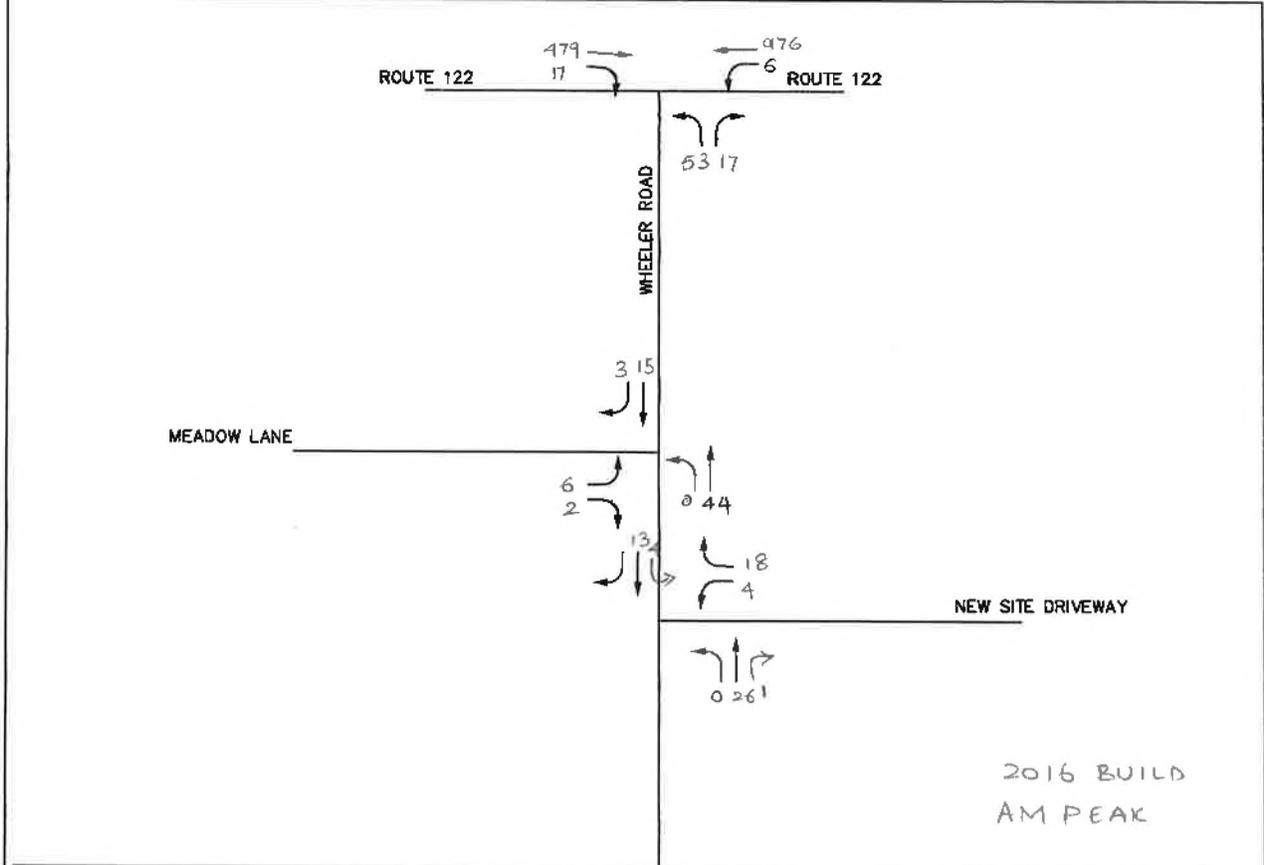
PARSONS
BRINCKERHOFF

75 Arlington Street, 9th Floor
Boston, MA 02116



WHEELER ROAD SUBDIVISION
PEAK HOUR TRAFFIC VOLUMES
GRAFTON, MA

PROJ. NO.: 52779D DATE: 07/06/2016



NOT TO SCALE



PARSONS
BRINCKERHOFF

75 Arlington Street, 9th Floor
Boston, MA 02116



WHEELER ROAD SUBDIVISION
PEAK HOUR TRAFFIC VOLUMES
GRAFTON, MA

PROJ. NO.: 52779D DATE: 07/06/2016

Intersection

Int Delay, s/veh 1.5

Movement	EBL	EBR	SET	SER	NWL	NWT
Vol, veh/h	39	13	479	14	5	976
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	14	521	15	5	1061

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1600	528	0	0	536	0
Stage 1	528	-	-	-	-	-
Stage 2	1072	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	117	550	-	-	1032	-
Stage 1	592	-	-	-	-	-
Stage 2	329	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	116	550	-	-	1032	-
Mov Cap-2 Maneuver	116	-	-	-	-	-
Stage 1	592	-	-	-	-	-
Stage 2	325	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	44.9		0
HCM LOS	E		

Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	1032	-	145	-	-
HCM Lane V/C Ratio	0.005	-	0.39	-	-
HCM Control Delay (s)	8.5	0	44.9	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0	-	2	-	-

HCM 2010 TWSC
 5: New Site Driveway & Wheeler Road

7/5/2016

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Vol, veh/h	26	0	0	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	0	0	14	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	28	42
Stage 1	-	-	28
Stage 2	-	-	14
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1585	969
Stage 1	-	-	995
Stage 2	-	-	1009
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1585	969
Mov Cap-2 Maneuver	-	-	969
Stage 1	-	-	995
Stage 2	-	-	1009

Approach	EB	WB	NW
HCM Control Delay, s			0
HCM LOS			A

Minor Lane/Major Mvmt	NWLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1585	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	26	11	3	6	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	12	3	7	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	15	0	42
Stage 1	-	-	14
Stage 2	-	-	28
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1603	-	969
Stage 1	-	-	1009
Stage 2	-	-	995
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1603	-	969
Mov Cap-2 Maneuver	-	-	969
Stage 1	-	-	1009
Stage 2	-	-	995

Approach	EB	WB	SE
HCM Control Delay, s			8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1603	-	-	-	992
HCM Lane V/C Ratio	-	-	-	-	0.009
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 0.8

Movement	EBL	EBR	SET	SER	NWL	NWT
Vol, veh/h	14	13	943	36	11	707
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	14	1025	39	12	768

Major/Minor	Minor1	Minor2	Major1	Major2	Major2	Major2
Conflicting Flow All	1837	1045	0	0	1064	0
Stage 1	1045	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	83	278	-	-	655	-
Stage 1	339	-	-	-	-	-
Stage 2	446	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	80	278	-	-	655	-
Mov Cap-2 Maneuver	80	-	-	-	-	-
Stage 1	339	-	-	-	-	-
Stage 2	432	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	43.6		0.2
HCM LOS	E		

Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	655	-	122	-	-
HCM Lane V/C Ratio	0.018	-	0.241	-	-
HCM Control Delay (s)	10.6	0	43.6	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0	-	1	-	-

HCM 2010 TWSC
 5: New Site Driveway & Wheeler Road

7/5/2016

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Vol, veh/h	15	0	0	27	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	0	0	29	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	16	45
Stage 1	-	-	16
Stage 2	-	-	29
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1602	965
Stage 1	-	-	1007
Stage 2	-	-	994
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1602	965
Mov Cap-2 Maneuver	-	-	965
Stage 1	-	-	1007
Stage 2	-	-	994

Approach	EB	WB	NW
HCM Control Delay, s			0
HCM LOS			A

Minor Lane/Major Mvmt	NWLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1602	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	1	14	26	3	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	15	28	3	3	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	32	0	47
Stage 1	-	-	30
Stage 2	-	-	17
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1580	-	963
Stage 1	-	-	993
Stage 2	-	-	1006
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1580	-	962
Mov Cap-2 Maneuver	-	-	962
Stage 1	-	-	993
Stage 2	-	-	1005

Approach	EB	WB	SE
HCM Control Delay, s	0.5		8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1580	-	-	-	981
HCM Lane V/C Ratio	0.001	-	-	-	0.004
HCM Control Delay (s)	7.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 2.6

Movement	EBL	EBR	SET	SER	NWL	NWT
Vol, veh/h	53	17	479	17	6	976
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	18	521	18	7	1061

Major/Minor	Minor1	Minor2	Major1	Major2	Major2	Major2
Conflicting Flow All	1604	530	0	0	539	0
Stage 1	530	-	-	-	-	-
Stage 2	1074	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	116	549	-	-	1029	-
Stage 1	590	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	114	549	-	-	1029	-
Mov Cap-2 Maneuver	114	-	-	-	-	-
Stage 1	590	-	-	-	-	-
Stage 2	322	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	57.1		0.1
HCM LOS	F		

Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	1029	-	141	-	-
HCM Lane V/C Ratio	0.006	-	0.54	-	-
HCM Control Delay (s)	8.5	0	57.1	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0	-	3	-	-

HCM 2010 TWSC
 5: New Site Driveway & Wheeler Road

7/5/2016

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Vol, veh/h	26	1	4	13	4	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	1	4	14	4	20

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	29
Stage 1	-	-	29
Stage 2	-	-	23
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1584	957
Stage 1	-	-	994
Stage 2	-	-	1000
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1584	954
Mov Cap-2 Maneuver	-	-	954
Stage 1	-	-	994
Stage 2	-	-	997

Approach	EB	WB	NW
HCM Control Delay, s		1.7	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NWLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1028	-	-	1584	-
HCM Lane V/C Ratio	0.023	-	-	0.003	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	44	15	3	6	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	48	16	3	7	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	20	0	66
Stage 1	-	-	18
Stage 2	-	-	48
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1596	-	939
Stage 1	-	-	1005
Stage 2	-	-	974
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1596	-	939
Mov Cap-2 Maneuver	-	-	939
Stage 1	-	-	1005
Stage 2	-	-	974

Approach	EB	WB	SE
HCM Control Delay, s			8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1596	-	-	-	967
HCM Lane V/C Ratio	-	-	-	-	0.009
HCM Control Delay (s)	0	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 1

Movement	EBL	EBR	SET	SER	NWL	NWT
Vol, veh/h	17	15	943	55	16	707
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	16	1025	60	17	768

Major/Minor	Minor1	Minor2	Major1	Major2	Major2	Major2
Conflicting Flow All	1858	1055	0	0	1085	0
Stage 1	1055	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	81	274	-	-	643	-
Stage 1	335	-	-	-	-	-
Stage 2	441	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	77	274	-	-	643	-
Mov Cap-2 Maneuver	77	-	-	-	-	-
Stage 1	335	-	-	-	-	-
Stage 2	421	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	48.8		0.2
HCM LOS	E		

Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	643	-	116	-	-
HCM Lane V/C Ratio	0.027	-	0.3	-	-
HCM Control Delay (s)	10.8	0	48.8	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0	-	1	-	-

HCM 2010 TWSC
 5: New Site Driveway & Wheeler Road

7/5/2016

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Vol, veh/h	15	5	24	27	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	5	26	29	2	5

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	101
Stage 1	-	-	19
Stage 2	-	-	82
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1593	898
Stage 1	-	-	1004
Stage 2	-	-	941
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1593	883
Mov Cap-2 Maneuver	-	-	883
Stage 1	-	-	1004
Stage 2	-	-	925

Approach	EB	WB	NW
HCM Control Delay, s		3.4	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NWLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1002	-	-	1593	-
HCM Lane V/C Ratio	0.008	-	-	0.016	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	1	19	50	3	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	21	54	3	3	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	58	0	79
Stage 1	-	-	56
Stage 2	-	-	23
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1546	-	924
Stage 1	-	-	967
Stage 2	-	-	1000
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1546	-	923
Mov Cap-2 Maneuver	-	-	923
Stage 1	-	-	967
Stage 2	-	-	999

Approach	EB	WB	SE
HCM Control Delay, s	0.4		8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1546	-	-	-	944
HCM Lane V/C Ratio	0.001	-	-	-	0.005
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

MEADOW LANE

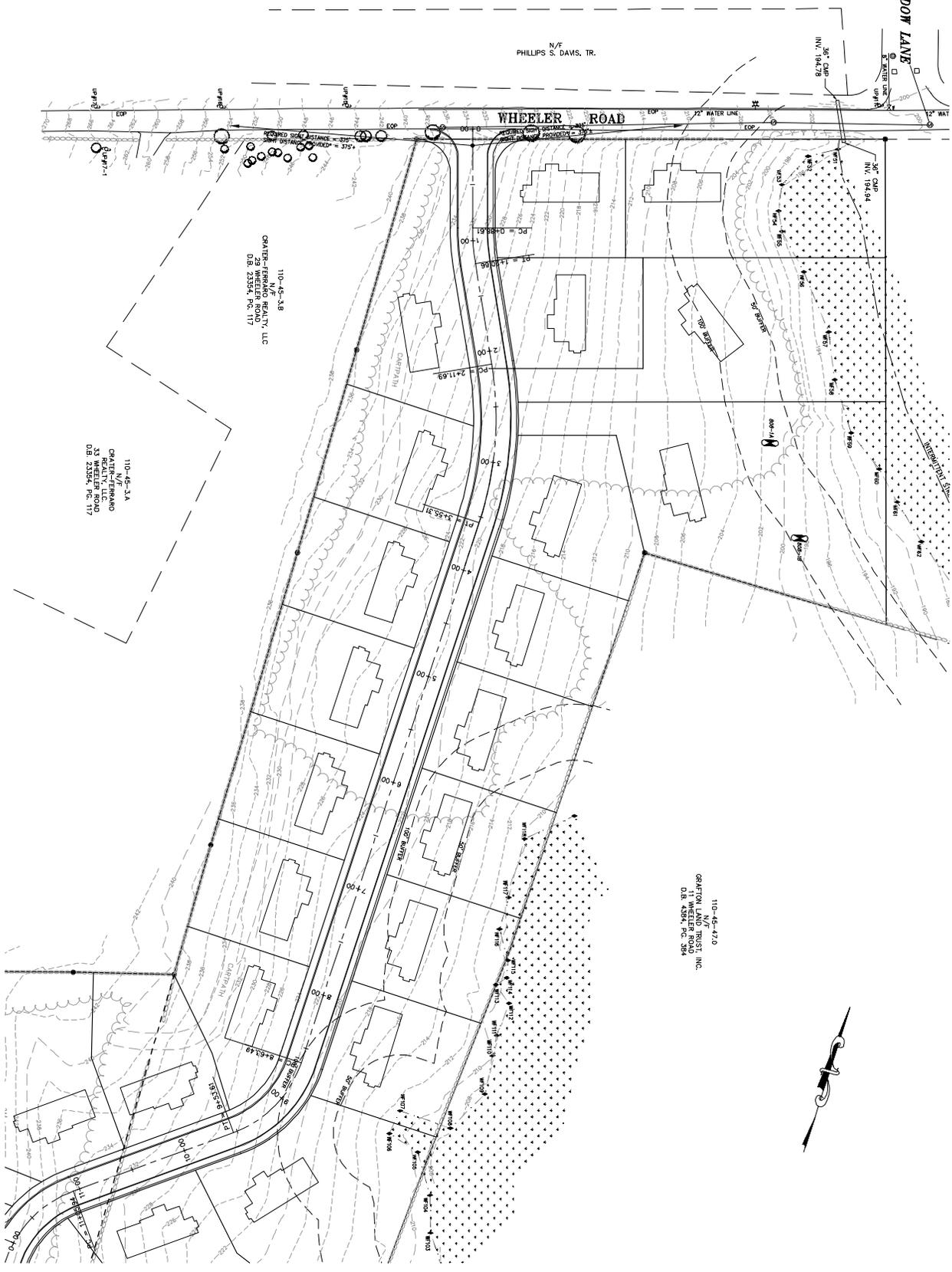
N/F
PHILLIPS S. DAVIS, TR.

WHEELER ROAD

110-45-318
GRATTI-FERRARO REALTY, LLC
29 WHEELER ROAD
D.B. 23584, P.C. 117

110-45-31A
GRATTI-FERRARO
N/F
23 WHEELER ROAD
D.B. 23584, P.C. 117

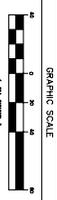
110-45-470
N/F
GRAFTON LANE ROAD, INC.
WHEELER ROAD
D.B. 4384, P.C. 384



Andrews Survey & Engineering, Inc.
Land Surveying - Civil Engineering - Site Planning
1100 Ross Hill Road
Grafton, MA 01833
P: 508-738-2300 F: 508-738-2309
www.aseinc.com

DRAWN BY: PETER J. ADAMS, TRUSTEE
CHECKED BY: PETER J. ADAMS, TRUSTEE
DATE: AUGUST 30, 2016
PROJECT NO.: 2011-273

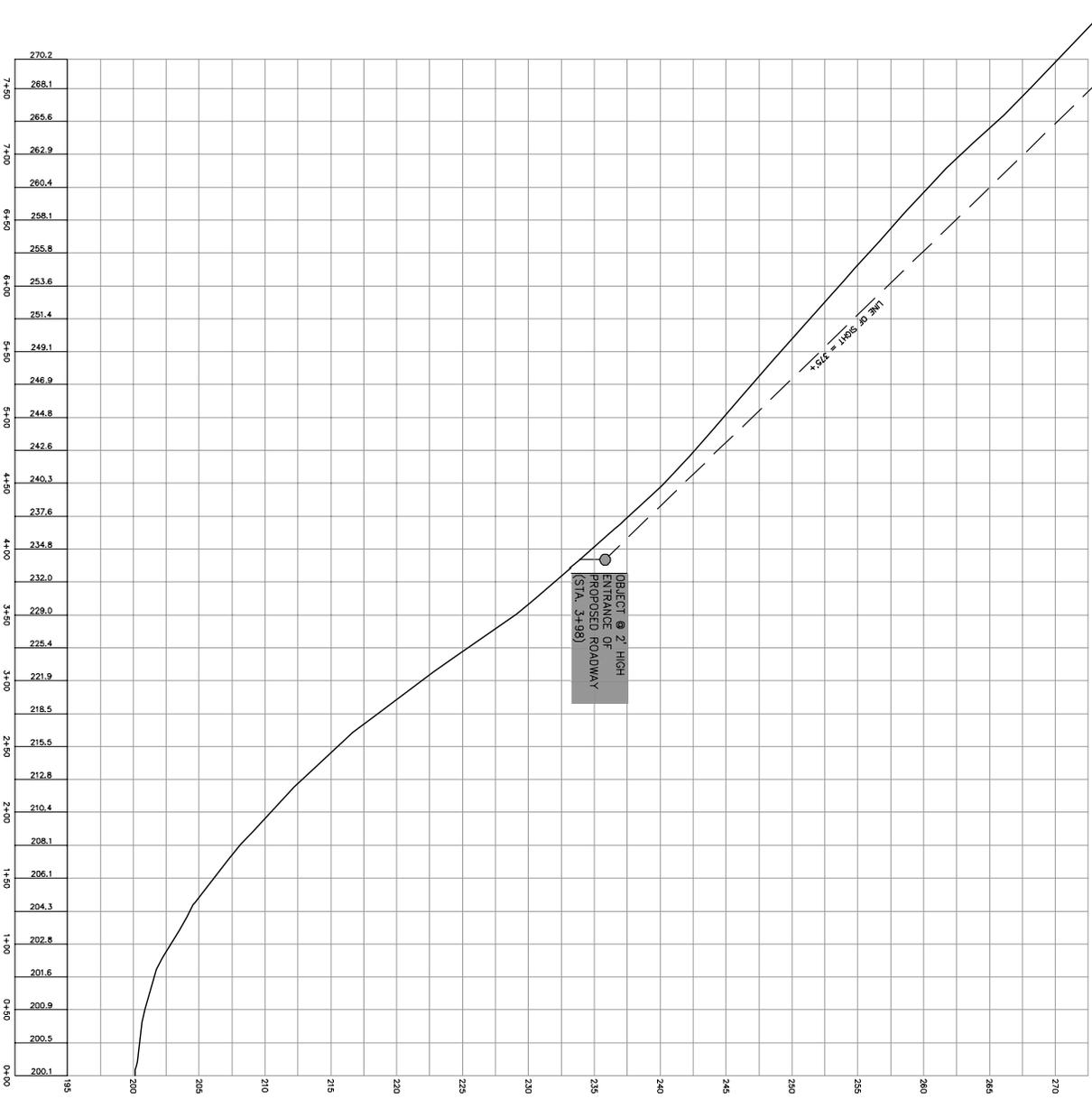
PLAN REFERENCE:
P.B. 177, P.L. 27
P.B. 523, P.L. 15
P.B. 829, P.L. 47
P.B. 802, P.L. 50



COO FILE	110-45-318-CONCEPT2.dwg
DRAWN BY	TRIN, S.O., WEN
CHECKED BY	SSD
DATE	AUGUST 30, 2016
PROJECT NO.	2011-273
PLAN NO.	

CONCEPTUAL PLAN
OF
21 WHEELER ROAD
IN
GRAFTON, MA
PREPARED FOR
PETER ADAMS

PASSENGER VEHICLE (DRIVER'S EYE)
HEIGHT = 3.5'
STA. 7+75



OBJECT @ 2' HIGH
ENTRANCE OF
PROPOSED ROADWAY
STA. 3+99

LINE OF SIGHT = 2%*

Andrew Survey & Engineering, Inc.
Lead Surveying - Civil Engineering - Site Planning
1100 Box 113, 1st Mainland Street
New Bedford, MA 01950
P: 508-738-2800 F: 508-738-2389

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OWNER OF RECORD:
PETER J. ADAMS, TRUSTEE
OF THE EDWARD REALTY TRUST
GRAFTON, MA 01919

MAP 54, PARCEL 17
PETER J. ADAMS, TRUSTEE
OF ASHLAW REALTY TRUST
GRAFTON, MA 01919

GRAFTON ZONING (REGULATION):
ZONE: R-40
MINIMUM AREA: 40,000 SF.
MINIMUM FRONT YARD SETBACK: 35 FT.
MINIMUM SIDE YARD SETBACK: 10 FT.
MINIMUM REAR YARD SETBACK: 10 FT.

DEED REFERENCES:
BK 39638, PL 141
BK 39638, PL 141

PLAN REFERENCE:
P.B. 177, PL. 27
P.B. 821, PL. 13
P.B. 821, PL. 15
P.B. 829, PL. 47
P.B. 862, PL. 50

NOTES

GRAPHIC SCALE

1" = 100' (Horizontal)
1" = 10' (Vertical)

SXD FILE	...\\ms\2015-CONCEPT.dwg
DRAWN BY	TRN, S.O., W.M.
CHECKED BY	SDO
DATE	AUGUST 30, 2016
PROJECT NO.	201-273
PLAN NO.	
TITLE	

ROADWAY PROFILE
OF
WHEELER ROAD
IN
GRAFTON, MA
PREPARED FOR
PETER ADAMS





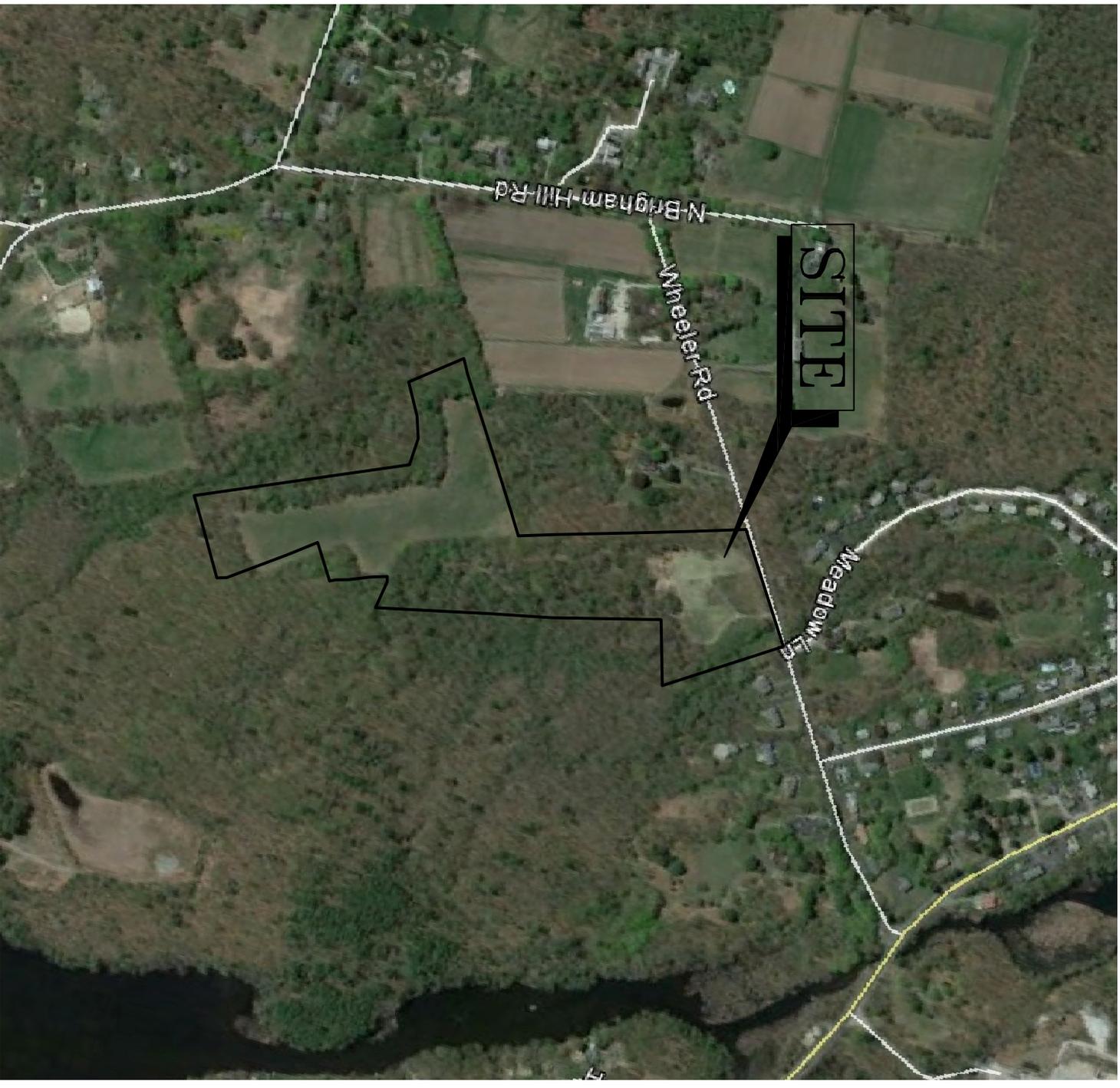
Existing Conditions

The proposed project site is located south of the Massachusetts Turnpike (I-90), west of Lake Ripple and MA Route 122, along the south side of Wheeler Road and east of Brigham Hill Road. The project site consists of two separate parcels of land, identified on the Town of Grafton's Assessors Maps as map 45, lot 2E and map 54, lot 17. The parcel at map 45, lot 2E has a physical address of 21 Wheeler Road, and map 54, lot 17 has a physical address of 106 Brigham Hill Road. The subject parcels are located within the Low Density Residential (R-40) zone.

Within the vicinity of the project site, the general land use surrounding the subject parcels consists of a residential subdivision to the north and northeast (along the northside of Wheeler Road), residential house lots to the east (along the southside of Wheeler Road), and a mix of undisturbed forest land and cleared farmland to the east, south, and west.

The existing site consists of vacant land. The portion of map 45, lot 2E along Wheeler Road is used for agricultural to produce hay/straw while the remainder of it remains forested. Map 54, lot 17 is predominately cleared and also used for agricultural to produce hay/straw. The topography of the existing project site consists of a generally consistent slope that falls in a west to east direction, from a highpoint on map 54, lot 17 at the northwesterly property corner with an approximate elevation of 470 feet to the low point on map 45, lot 2E approximately 250 feet south of the northeasterly property corner with an approximate elevation of 374 feet.

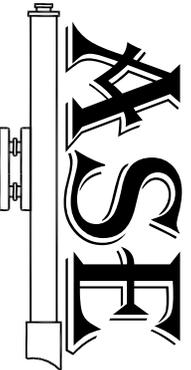
According to the USDA's Web Soil Survey, the subject parcels consist of Paxton fine sandy loam, Woodbridge fine sandy loam, and Woodbridge fine sandy loam soil types. The subject parcels do not have any known water protection districts or wellhead protection areas, areas of critical environmental concerns (ACEC's), NHESP Estimated or Priority Habitats, or Activity and Use Limitation areas (AUL). The subject site does have wetland resource areas and associated buffer zones within the property limits. The northeasterly portion of the existing site has an intermittent stream and associated Bordering Vegetated Wetlands (BVW) that originates at the discharge to a 36-inch CMP storm drain outlet that runs under Wheeler Road and outlets on the existing site. Further south along the easterly property limits there is another BVW and at the southwesterly corner of the property there is also a BVW associated with a natural drainage channel.



AERIAL PHOTOGRAPH MAP

SCALE: 1"=500'

21 WHEELER ROAD
GRAFTON, MASSACHUSETTS



Andrew's Survey & Engineering, Inc.
Land Surveying - Civil Engineering - Site Planning

P.O. Box 312, 104 Mendon Street
Uxbridge, Massachusetts 01569-0312
P: 508-278-3897 F: 508-278-2289

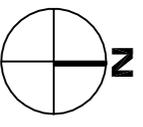
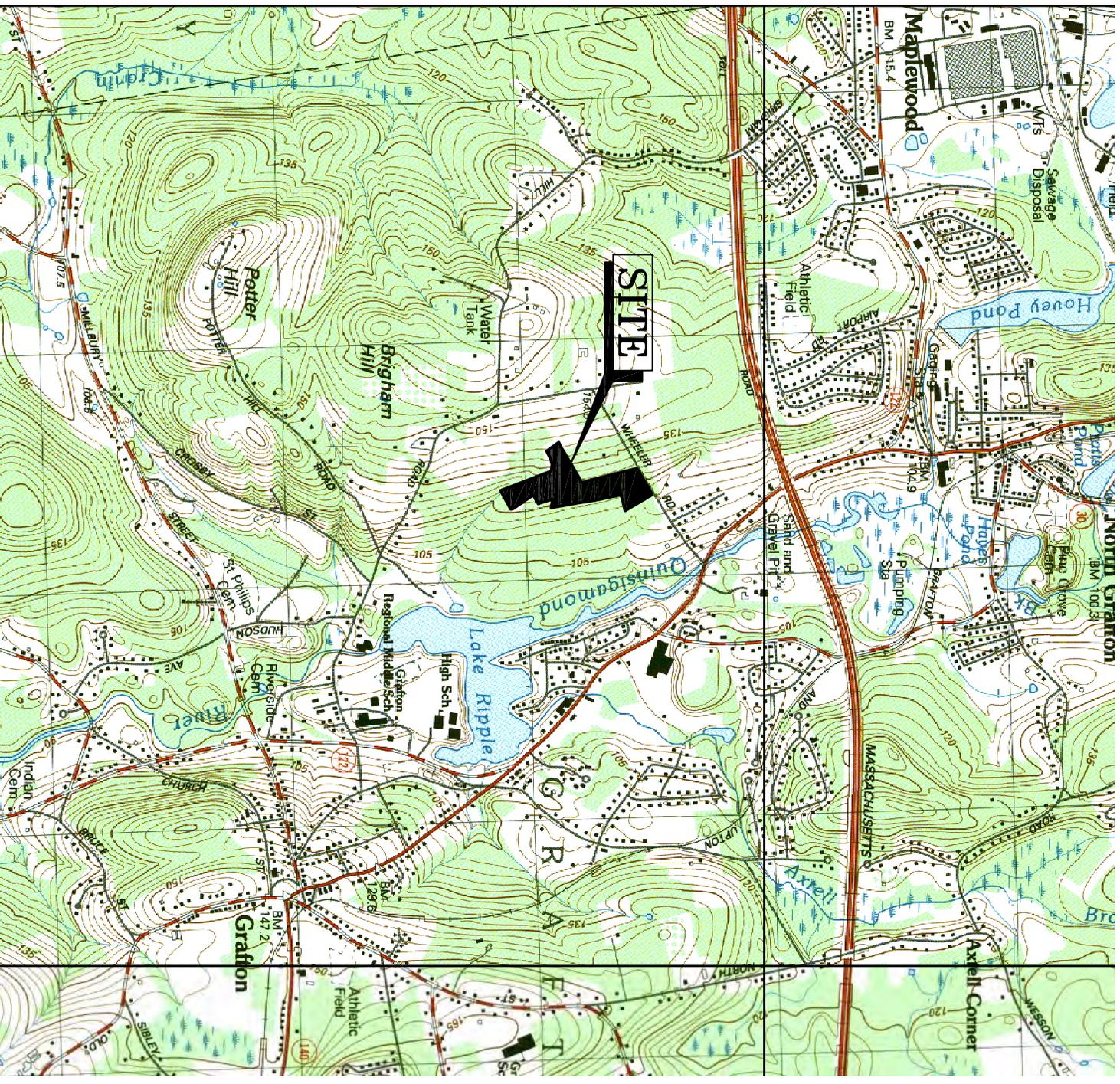


FIGURE 1.0



U.S.G.S. LOCUS MAP

SCALE: 1"=2,000'

**21 WHEELER ROAD
GRAFTON, MASSACHUSETTS**

Andrews Survey & Engineering, Inc.
Land Surveying - Civil Engineering - Site Planning

P.O. Box 312, 104 Mendon Street
Uxbridge, Massachusetts 01569-0312
P: 508-278-3897 F: 508-278-2289

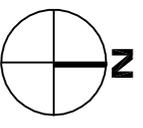
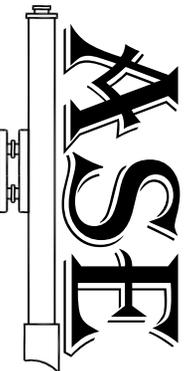


FIGURE 1.0



Complete &
get Peter
to sign

COMPREHENSIVE PERMIT
APPLICATION FORM

Refer to the "Rules and Regulations for Comprehensive Permits" available from the office of the Board of Appeals for detailed permit filing requirements.

(Please type or print your application)

1. Street Address of Site:

21 Wheeler Road & 106 Brigham Hill Road

Name of Proposed Development:

Elmrock Estates

2. Applicant's Name:

Fieldstone Realty, LLC

Address:

100 Brigham Hill Road

Telephone: 508-320-5849 Fax _____

e-mail peteradams2206@gmail.co

3. Record Owner Name:

Peter J. Adams

Address:

Telephone: 508-320-5849

4. Zoning District(s) of Parcel(s):

Lot 5 - Residential Zoning - R40

Town Assessor's Map(s)/ Parcel Number(s):

110/45/2E & 110/54/17

5 a) Total development site area 17.99 acres

b) Number of dwelling units 36

c) Number of affordable units 9

d) Number of units adaptable for persons w/ disabilities 0

e) Total open space area 68.10

f) Total length of road(s): public _____ ft private _____ ft

g) Method of wastewater disposal:

public sewer available within Wheeler Road

The undersigned hereby apply to the Planning Board for a Comprehensive Permit under M.G.L. c. 40B, §§ 20-23. The undersigned hereby certify that the information on this application and

plans submitted herewith are correct, and that, to the best of his/her knowledge, the application complies with all applicable provisions of Law and Regulations.

Signed under the penalties of perjury in accordance with M.G.L. c. 268, § 1A.

Peter J. Adams
Signature of Petitioner(s)

9-23-16
Date

Signature of Petitioner(s)

Date

RECORD OWNER'S KNOWLEDGE AND CONSENT

I hereby assert that I have knowledge of and consent to and concur with the application presented above.

Peter J. Adams
Signature of Record Owner(s)

9-23-16
Date

Signature of Record Owner(s)

Date

**COMPREHENSIVE PERMIT
DEVELOPMENT SCHEDULE**

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total
Projected completion date	<i>Unknown</i>					
Number of affordable units	<i>9</i>					
Number of market units	<i>27</i>					
Subtotal of units	<i>36</i>					

For the last development phase, or if only one development phase is proposed, suggest below a building permit schedule by which affordable units will be completed. Generally, the Board will allow a staggered completion of market rate and affordable units but requires the completion of all affordable units before the issuance of the last building permit(s) for the project.

SEB

**COMPREHENSIVE PERMIT
UNIT COMPOSITION TABLE**

Type of unit		Number of units	Number of baths/unit	Gross Sq. Ft./unit	Unit sales price or monthly rent	Homeowner's association/condominium fee
1-bedroom	Affordable					
	Market rate					
2-bedrooms	Affordable					
	Market rate					
3-bedrooms	Affordable					
	Market rate					
4-bedrooms	Affordable	9	2.5	2,020	\$201,200	TBD
	Market rate	27	2.5	2,020- 2,417	\$506,250	TBD
5 or more bedrooms	Affordable					
	Market rate					
Totals		36	90	72,720	15,479,550	



TOWN OF GRAFTON
 GRAFTON MEMORIAL MUNICIPAL CENTER
 30 PROVIDENCE ROAD
 GRAFTON, MASSACHUSETTS 01519
 (508) 839-5335 ext 1165 • FAX (508) 839-4602
 www.grafton-ma.gov

RECEIVED

SEP 26 2016

GRAFTON
 ASSESSORS

BOARD OF ASSESSORS

Request for Abutters List

Date of Request: 9-26-16 Date List Needed: _____

Requested by: Peter Adams Phone: 508-320-5849

Name of Property Owner: AshLAWN R.T., ELMROCK R.T.

Street Address of Property: 21 Wheeler Rd, 106 R Brigham Hill Rd,

Map: 45/2E & 54/17 Block: _____ Lot: _____

REASON FOR LIST:

Hearing before the Zoning Board of Appeals Yes X No _____
 Hearing before the Planning Board Yes _____ No _____
 Hearing before the Conservation Commission Yes _____ No _____

Other: _____

REASON FOR HEARING - (please check)

Variance _____ Scenic Road _____ Title 5 _____ Special Permit _____ Subdivision _____

Other: 40 B Comprehensive Permit Application

RADIUS FOR ABUTTERS - (please check one)

Immediate _____ 300 Feet X Upon, along, across or under: _____

LABELS

Two Sets of Labels will be provided if needed: Yes X No _____
 (Planning Board requires 2 sets of Labels)

Office Use Only

Date List Prepared: 9-27-16 Address Labels Prepared: 9-27-16

Fee Charged: \$ 25.00 Amt. Paid: 25.00 \$ Date: 9-27-16

Check: # 686 Cash: \$ _____ Money Order: \$ _____

Revised: 1/22/2014

21 Wheeler Road and 106 Rear Brigham Hill Road
 Map 45, Lot 2E and Map 54, Lot 17

Tammy Kalinowski
 Tammy Kalinowski, Office Manager

PARCEL ID	LOCATION	OWNER 1	OWNER 2	ADDRESS	CITY	ST	ZIP	BK	PG
110/045.0-0000-0002.B	15 WHEELER ROAD	BAZINET ANDREW J	BAZINET STEPHANIE J	15 WHEELER ROAD	N GRAFTON	MA	01536	52501	170
110/045.0-0000-0002.C	17 WHEELER ROAD	POSTERRO KEVIN M	POSTERRO SUSAN R	17 WHEELER ROAD	N GRAFTON	MA	01536	41233	389
110/045.0-0000-0002.D	19 WHEELER ROAD	GANDURI CHANDRASEKHAR V	RANGWALA MAIMUNA H	19 WHEELER ROAD	N GRAFTON	MA	01536	51427	190
110/045.0-0000-0002.E	21 WHEELER ROAD	ADAMS PETER J TRUSTEE	ELMROCK REALTY TRUST	100 BRIGHAM HILL ROAD	GRAFTON	MA	01519	39639	141
110/045.0-0000-0003.A	31 WHEELER ROAD	O'BRIEN JOSEPH A	O'BRIEN JANET F	31 WHEELER ROAD	N GRAFTON	MA	01536	23379	373
110/045.0-0000-0003.B	33 WHEELER ROAD	CRATER-FERRARO REALTY LLC		116 BRIGHAM HILL ROAD	N GRAFTON	MA	01536	23354	117
110/045.0-0000-0006.A	29 WHEELER ROAD	CRATER-FERRARO REALTY LLC		116 BRIGHAM HILL ROAD	N GRAFTON	MA	01536	23354	117
110/045.0-0000-0006.B	40 N BRIGHAM HILL ROAD	WHITE DAVID H	WHITE SHIRLEY H	40 N BRIGHAM HILL ROAD	N GRAFTON	MA	01536	6088	340
110/045.0-0000-0007.A	32 WHEELER ROAD	GRAFTON LAND TRUST INC		P.O. BOX 114	GRAFTON	MA	01519	54771	338
110/045.0-0000-0008.A	51 MEADOW LANE	LISTON DOUGLAS C	LISTON MICHELLE R	51 MEADOW LANE	N GRAFTON	MA	01536	54158	131
110/045.0-0000-0008.B	56 MEADOW LANE	MAGILL ASSOCIATES		P O BOX 565	GRAFTON	MA	01519	16976	47
110/045.0-0000-0054.A	52 MEADOW LANE	BURTON JOANTHAN M	BURTON SARA J	52 MEADOW LANE	N GRAFTON	MA	01536	53908	319
110/045.0-0000-0055.A	54 MEADOW LANE	SHROPSHIRE LOUIS T III	SHROPSHIRE ELIZABETH L	54 MEADOW LANE	N GRAFTON	MA	01536	17528	100
110/045.0-0000-0070.A	20 WHEELER ROAD	MAGILL ASSOCIATES		P O BOX 565	GRAFTON	MA	01519	16976	47
110/054.0-0000-0014.A	37 WHEELER ROAD	CRATER-FERRARO REALTY LLC		116 BRIGHAM HILL ROAD	N GRAFTON	MA	01536	23824	302
110/054.0-0000-0015.A	116 BRIGHAM HILL ROAD	GRAFTON KENNETH C		116 BRIGHAM HILL ROAD	N GRAFTON	MA	01536	14143	196
110/054.0-0000-0017.A	106 BRIGHAM HILL ROAD	GRAFTON LAND TRUST INC		PO BOX 114	GRAFTON	MA	01519	15301	183
110/054.0-0000-0017.B	106 BRIGHAM HILL ROAD	ADAMS PETER J TRUSTEE	ASHLAWN REALTY TRUST	100 BRIGHAM HILL ROAD	GRAFTON	MA	01519	24455	285
110/055.0-0000-0047.A	11 WHEELER ROAD	GRAFTON LAND TRUST INC		PO BOX 114	GRAFTON	MA	01519	4384	384
110/063.0-0000-0001.A	94 BRIGHAM HILL ROAD	ADAMS PETER J TRUSTEE	ASHLAWN REALTY TRUST	100 BRIGHAM HILL ROAD	GRAFTON	MA	01519	24835	155

BAZINET ANDREW J
BAZINET STEPHANIE J
15 WHEELER ROAD
N GRAFTON, MA 01536

POSTERRO KEVIN M
POSTERRO SUSAN R
17 WHEELER ROAD
N GRAFTON, MA 01536

GANDURI CHANDRASEKHAR V
RANGWALA MAIMUNA H
19 WHEELER ROAD
N GRAFTON, MA 01536

ADAMS PETER J TRUSTEE
ELMROCK REALTY TRUST
100 BRIGHAM HILL ROAD
GRAFTON, MA 01519

O'BRIEN JOSEPH A
O'BRIEN JANET F
31 WHEELER ROAD
N GRAFTON, MA 01536

CRATER-FERRARO REALTY
LLC
116 BRIGHAM HILL ROAD
N GRAFTON, MA 01536

CRATER-FERRARO REALTY
LLC
116 BRIGHAM HILL ROAD
N GRAFTON, MA 01536

WHITE DAVID H
WHITE SHIRLEY H
40 N BRIGHAM HILL ROAD
N GRAFTON, MA 01536

GRAFTON LAND TRUST INC
P.O. BOX 114
GRAFTON, MA 01519

LISTON DOUGLAS C
LISTON MICHELLE R
51 MEADOW LANE
N GRAFTON, MA 01536

MAGILL ASSOCIATES
P O BOX 565
GRAFTON, MA 01519

BURTON JOANTHAN M
BURTON SARA J
52 MEADOW LANE
N GRAFTON, MA 01536

SHROPSHIRE LOUIS T III
SHROPSHIRE ELIZABETH L
54 MEADOW LANE
N GRAFTON, MA 01536

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PO BOX 114
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ADAMS PETER J TRUSTEE
ASHLAWN REALTY TRUST
100 BRIGHAM HILL ROAD
GRAFTON, MA 01519

COMPREHENSIVE PERMIT DEVELOPMENT IMPACT REPORT

SECTION D

Development: Elmrock Estates

Location: 21 Wheeler Road & 106 Brigham Road

Provide brief descriptions of the measures that will be taken to:

Prevent surface water contamination.: The site and stormwater system design will meet or exceed MADEP Stormwater Management Standards. During the construction phase, erosion controls will be utilized in accordance with Best Management Practices (BMP) and the Stormwater Pollution Prevention Plan (SWPPP) that will be customized for the project.

Prevent groundwater contamination.: The site and stormwater system design will meet or exceed MADEP Stormwater Management Standards. During the construction phase, erosion controls will be utilized in accordance with Best Management Practices (BMP) and the Stormwater Pollution Prevention Plan (SWPPP) that will be customized for the project.

Maximize groundwater recharge.: The site and stormwater system design will meet or exceed MADEP Stormwater Management Standards with regards to Standard #3 – Groundwater Recharge.

Prevent erosion and sedimentation.: During the construction phase, erosion controls will be utilized in accordance with Best Management Practices (BMP) and the Stormwater Pollution Prevention Plan (SWPPP) that will be customized for the project. There are no excessive cuts or fills proposed as part of the project construction.

Maintain slope stability.: There are no excessive cuts or fills proposed as part of the project construction. The proponent will be required to adhere to the strict requirements of the SWPPP that will be customized for this project.

Design project to conserve energy.: Homes will be built to exceed current energy requirements with regards to building materials, quality of construction, and providing energy efficient fixtures and appliances.

Preserve wildlife habitat.: There are no mapped endangered species on the project site. However, non-endangered wildlife habitat will not be prevented from occupying portions of the property. The property is surrounded by preserved open space on the south and east sides.

Preserve wetlands.: No wetland alterations are proposed as part of the project.

Ensure compatibility with the surrounding land uses.: The project proposes single family homes of comparable size to those in the surrounding neighborhoods.

Control peak runoff from the site so that the post-development rate will be no greater than the pre-development rate for the 10-year storm event.: The site and stormwater system design will meet or exceed MADEP Stormwater Management Standards with regards to Standard #2 – Post-Development Peak Rate.

Preserve historically significant structures and features on the site.: The existing stone walls along the perimeter of the site will remain.

Mitigate the impact to the traffic generated by the development.: There are no mitigation measures identified as necessary in the traffic analysis prepared for the project. The proposed intersection with Wheeler Road is located to provide maximum sight distances.

COMPREHENSIVE PERMIT DEVELOPMENT IMPACT REPORT

The Development Impact Report (DIR) is intended to assist the Board of Appeals in its evaluation of the proposed development in the context of existing conditions and planning efforts by the Town.

The DIR seeks to summarize the broad range of issues generally associated with development plans in a form and language that is understandable to a layperson. It assesses development impacts that might be avoided or mitigated if recognized early in the development process. Other portions of the DIR request information that will assist the Town in planning ahead to provide adequate services in the future. The Board of Appeals hopes that the DIR, early consultations with the Town staff, and the applicant's continuing cooperation throughout the development review process will foster an atmosphere in which a development of excellent quality and design will emerge that helps meet housing needs and is sensitive to Grafton's natural and historic heritage and other community concerns.

The DIR shall be filed with a comprehensive permit application. However, it is recommended that it be given to Town staff at the preliminary review stage, even if portions are incomplete at that time. The DIR shall clearly and methodically assess the relationship of the proposed development to the natural, physical, and social environment. In preparing the DIR, professionals of the respective fields should be consulted as necessary.

**COMPREHENSIVE PERMIT
DEVELOPMENT IMPACT REPORT**

(Please type or print information in blanks below)

1. Name of Proposed Development: Elmrock Estates
2. Location: 21 Wheeler Road & 106 Brigham Hill Road
3. Name of Applicant(s): Fieldstone Realty, LLC
4. Brief Description of the Proposed Project: 36 4-bedroom single family homes, 27 will be market rate and 9 will be moderate income homes.
5. Name of individual preparing this DIR: Stephen O'Connell-Andrews Survey & Engineering, Inc
 Address: P.O. Box 312, Uxbridge, MA 01569
 Business Phone: 508-278-3897 Fax: 508-278-2289 E-mail: soconnell@andrews-engineering.com
 Professional Credentials: MA EIT #19238, MA Soil Evaluator #SE2715
MA Title 5 System Inspector #SI4256

A. Site Description

Present permitted and actual land uses by percentage of the site.

<i>Use</i>	<i>Percentage of the site (permitted)</i>	<i>Percentage of the site (actual)</i>
Industrial		0
Commercial		0
Residential		100
Forest		0
Agricultural		0
Other (specify)		0

Total acreage on the site: 17.99± acres.

<i>Land Type</i>	<i>Current Acreage</i>	<i>Acreage After Completion</i>
Meadow or Brusbland (non-agriculture)	0	13.38±
Forested	7.98±	2.17±
Agricultural (includes orchards, cropland, pasture)	9.54±	0

Wetland	0.47±	0.47±
Surface Water	0	0
Flood Plain	0	0
Unvegetated (rock, earth, or fill)	0	0
Roads, buildings and other impervious surfaces	0	1.97±
Other (indicate type)	0	0

List the zoning districts in which the site is located and indicate the percentage of the site in each district. *Note: include overlay zoning districts.*

<i>District</i>	<i>Percentage</i>
Residential R-40	100

Predominant soil type(s) on the site: Paxton fine sandy loam (8-15% slopes), Woodbridge fine sandy loam (3-8% slopes), Woodbridge fine sandy loam (0-8% slopes, extremely stony)

Soil drainage (using the US Soil Conservation Service's definitions):

<i>Soil Type</i>	<i>% of the Site</i>
Well drained	0
Moderately well drained	100
Poorly drained	0

Are there bedrock outcroppings on the site? yes no

Approximate percentage of proposed site with the following slopes:

<i>Slope</i>	<i>% of the Site</i>
0 – 10%	
10 – 15%	
Greater than 15%	

How close is the site to a public well? 2,190±* feet (Zone _____)

* Distance is measured from the closest property boundary to Community Groundwater Well #2110000-0CG.

Does the project site contain any species of plant or animal life that is identified as rare, endangered or threatened? (Consult with the Massachusetts National Heritage and Endangered Species Program and the Grafton Conservation Commission).

yes no

If yes, specify:

Are there any unusual or unique features on the site such as trees larger than 30 inches dbh, bogs, kettle ponds, eskers, drumlins, quarries, distinctive rock formation or granite bridges?

yes no

If yes, specify:

Several trees on the property exceed 30" dbh.

Are there any established footpaths or railroad right of ways on the site?

yes no

If yes, specify:

Is the site presently used by the community or neighborhood as an open space or recreation area? yes no

Is the site adjacent to conservation land or a recreation area? yes no

If yes, specify: To the east of the site is Gummere Woods and to the east and south is Marsters Preserve.

Does the site include scenic views, or will the proposed development obstruct any scenic vistas? yes no

If yes, specify:

Are there wetlands, lakes, ponds, streams or rivers within or contiguous to the site?

yes no

If yes, specify: There are wetlands on the east side of the site and there is a wetland on the adjacent site to the south.

Is there any land on the site protected under General Laws Chapter 61, 61A or 61B?

yes no

If yes, specify:

Has the site ever been used for the disposal of hazardous waste? yes no

Has a Chapter 21E study been conducted for the site? yes no

If yes, specify (including results):

Will the proposed activity require use and/or storage of hazardous materials or generation of hazardous waste? yes no

If yes, specify:

Does the project contain any buildings or sites of historic or archaeological significance? (Consult with the Grafton Historic Commission and the Massachusetts Historic Commission) yes no

If yes, describe:

Is the project contiguous to or does it contain a building in a local historic district or national register district? yes no

If yes, specify:

B. Circulation System

What average traffic volumes will the project generate?

Average weekday traffic	344 trips
Average peak hour volume - weekday morning	27 trips
Average peak hour volume - weekday evening	36 trips
Average peak hour volume - Saturday	

Existing street(s) providing access to proposed development:

Name Wheeler Road

Existing intersections: list all intersections located within 1000 feet of any access to the proposed development: Wheeler Road & Meadow Lane

Location of existing sidewalks within 1000 feet of the proposed site:

None

Location of proposed sidewalks and their connection to existing sidewalks:

The proposed sidewalk will run along the east side of the proposed road.

Are there parcels of undeveloped land adjacent to the proposed site? yes no

Will access to these undeveloped parcels be provided within the proposed site?

yes no

If yes, describe:

If no, explain why not: No access will be provided to undeveloped abutting parcels for future development. The parcels are currently owned by the Land Trust and maintained as open space. Trail connections to these parcels may be provided from the proposed development.

C. Utilities and Municipal Services

What is the total number of bedrooms proposed? 144

Storm Drainage

a. Describe the type and location of any surface water body currently receiving runoff from the site:

The site generally drains from west to east and runoff leaving the site enters a wetland on the adjoining property before it reaches Lake Ripple.

b. Describe the proposed drainage system and how it will alter existing drainage patterns:

The stormwater system will be comprised of surface detention/infiltration basins that will meet or exceed MA Stormwater Management Standards. The system will be designed to maintain existing drainage patterns.

c. Will a NPDES Permit be required? yes no

Estimate the fire department response time to the site (consult with Fire Dept.)
6 minutes

Schools

- a. Projected number of new school age children: 32
- b. Distance to nearest school: 1.2 miles

D. Measures to Mitigate Impacts

Attach brief descriptions of the measures that will be taken to:

Prevent surface water contamination.

Prevent groundwater contamination.

Maximize groundwater recharge.

Prevent erosion and sedimentation.

Maintain slope stability.

Design the project to conserve energy.

Preserve wildlife habitat.

Preserve wetlands.

Ensure compatibility with the surrounding land uses.

Control peak runoff from the site so that the post-development rate will be no greater than the predevelopment rate for the 10-year storm event.

Preserve historically significant structures and features on the site.

Mitigate the impact of the traffic generated by the development.

Please use layperson's terms where possible while still being accurate and comprehensive. Where appropriate, graphics shall be used. List sources of data, reference materials, and methodology used to determine all conclusions. Use additional sheets as necessary.

TOWN OF GRAFTON

MASSACHUSETTS

BOARD OF APPEALS

AGENDA

Notice is hereby given that the Board of Appeals of the Town of Grafton will hold a public hearing on **TBD DATE** in a **Conference Room** of the **Grafton Town Hall** on the following applications at the times indicated:

7:00 P.M. Resident Comments

7:00 P.M. *Continuation:* Application by Fieldstone Estates, LLC, 100 Brigham Hill Road, Grafton MA 01519 as to 21 Wheeler Road (Map 110, Lot 2E) and 106 Brighton Hill Road (Map 110, Lot 17) requesting a Comprehensive Permit under M.G.L. Ch. 40B for 36 housing units (9 of which will be affordable) on 17.99 acres.

The petitions and plans on the above applications are available for public inspection in the office of the Board of Appeals on Monday through Friday, from 9 A.M. to 4:30 P.M.

By: William McCusker, Chair, Grafton Zoning Board of Appeals