FORM C

APPLICATION FOR APPROVAL OF A DEFINITIVE PLAN

PLANNING BOARD - TOWN OF GROVELAND, MASSACHUSETTS
DATE August 1, 2024

SUBDIVISION NAME 181R School Street PLAN#_____

To the Planning Board of the Town of Groveland

The undersigned, being the Applicant as defined under Chapter 41, Section 81-L, for approval of a proposed subdivision shown on a plan entitled "Definitive Subdivision for a Street to be Named in Groveland, Massachusetts at 181R School Street by The Morin-Cameron Group, Inc. dated August 1, 2024 being bounded by land as follows:
See Exhibit A.

Assessor Maps dated 01/01/2019 Plan (s) # 34 lots(s) # 13
Hereby submits said plan as a Definitive Subdivision Plan in accordance with the Rules and Regulations of the Groveland Planning Board and makes application to the Board for approval of said plan.

The undersigned's title to said land is derived from Frank J Franzone
by deed dated 06/28/2017, and recorded in the Essex South Country Registry of Deeds. Book 35976, Pate (s) 077 registered in the Essex South Registry District Of the Land Court, Certificate of Title No. n/a and is free of encumbrances except for the following:

Said plan has (x) has not () evolved from a preliminary plan submitted to the Board on And approved (with modifications) (x) disapproved ( ) on (date) 04/19/2023

The undersigned hereby applies for the approval of said Definitive Plan by the Board, and in furtherance thereof hereby agrees to abide by the Board's Rules and Regulations. The undersigned hereby further covenants and agrees with the Town of Groveland, upon the approval of said Definitive Plan by the Board:

1. to install utilities in accordance with the Rules and Regulations of the Planning Board, Road Commissioner/Public Works Director, the Board of Health, Water and Sewer Board, Municipal Light Department, all general bylaws, and all Zoning Bylaws of the Town of Groveland, as are applicable to the subdivision of land and installation of utilities within the limits of ways and streets:

2. to complete and construct the streets or ways shown thereon in accordance with the Rules and Regulations of the Planning Board and the approved Definitive plan, profiles, and cross sections of the same. Said plan, profiles, cross sections, and construction specifications are specifically, by reference, incorporated herein ai1d made a part of the application. This application and the covenants and agreements herein shall be binding

upon all heirs, executors, administrators, successors, grantees of the whole or part of said land, and assigns of the undersigned; and

3.

(a) to complete, except in the case of any portion of the subdivision for which a surety company performance bond, or a performance bond secured by a deposit of money or negotiable securities, or a tripartite agreement shall have been filed pursuant to these regulations, the required improvements for the subdivisions within three (3) years of the date of such approval, or

(b) to complete the required improvement for any portion of the subdivision, for which a surety company performance bond, or a performance bond secured by a deposit of money or negotiable securities, or a tripartite agreement shall have been filed , within two (2) years of the date of the performance surety or within three (3) years of the date of the Board's approval of the Definitive Plan, whichever date shall occur the earlier, and

(c) that no structure will be occupied until at least the base course of the bituminous concrete has been applied to the streets which serve those structures.

Received by Town Clerk

Date 8/1/2024

Time 11:05 AM

Signature

Applicant's Signature

Louis Minicucci Jr Manager

Applicant's Address Groveland Redevelopment, LLC
231 Sutton Street, Suite 1B
North Andover, MA 01845

Andover Real Property Management, Inc., Mgr

Owner's Signature (If not the applicant)

Owner's Address 181R School Street, LLC
5 Atkinson Farm Road
Atkinson, NH 03811

Received by Planning Board

Date 8/1/2024

Signature

2024 AUG -1 AM 11:05

Exhibit A

An undeveloped parcel of land in Groveland, Essex County, Massachusetts, situated on the Westerly side of School Street, bounded and described as follows:

Beginning at the Westerly corner thereof on said School Street at land now or formerly of Ricker and thence running

SOUTHEASTERLY, by School Street to land now or formerly of Donald McGlew; thence

SOUTHWESTERLY, by said land of Donald McGlew in two courses, 212.73 feet to a point; thence

SOUTHEASTERLY, still by said land of Donald McGlew, 250 feet to land now or formerly of Mitchell and land now or formerly of Drew; thence

SOUTHWESTERLY, by land now or formerly of Mitchell and Drew to land now or formerly of Benjamin Morse; thence

NORTHWESTERLY, by land now or formerly of Benjamin Morse to land now or formerly of Thomas Jacques; thence

NORTHEASTERLY, by land now or formerly of Jacques and land now or formerly of Picker to School Street and the point begun at.

FORM D

LAND SURVEYOR'S CERTIFICATE

PLANNING BOARD - TOWN OF GROVELAND, MASSACHUSETTS
DATE August 1, 2024

SUBDIVISION NAME 181R School Street PLAN# _____

To the Planning Board of the Town of Groveland

In preparing the plan entitled "Definitive Subdivision for a Street To Be Named in Groveland, Massachusetts at 181R School Street", I hereby certify that the above named plan and accompanying data are true and correct to the accuracy required by the current Rules and Regulations Governing the Subdivision of Land in Groveland, Massachusetts, and my source of information about the location of boundaries shown on said plan was one or more of the following:

1. Deed from Frank J. Franzone to 181R School Street, LLC dated 06/28/17 and recorded in the Essex South Registry in Book 35976 Page(s) 77

2. Other plans, as follows:
1984 E.C.L.O. #3203

3. Oral information furnished by:
N/A

4. Actual measurements on the ground from a starting point established by:
1989 Essex County, Layout

5. Other sources:
N/A

Seal of Professional Land Surveyor

COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. SERGI
No.33191
PROFESSIONAL LAND SURVEYOR

Signed _____
(Professional Land Surveyor)

Address _____

_____

FORMD-1

PROFESSIONAL ENGINEER'S CERTIFICATE

PLANNING BOARD - TOWN OF GROVELAND, MASSACHUSETTS
DATE August 1, 2024

SUBDIVISION NAME 181R School Street PLAN#

To the Planning Board of the Town of Groveland

In preparing the plan entitled "Definitive Subdivision for a Street To Be Named in Groveland, Massachusetts at 181R School Street". I hereby certify that the above named plan and accompanying data are true and correct to the accuracy required by the current Rules and Regulations Governing the Subdivision of Land in Groveland, Massachusetts, and that the designs contained herein are in accordance with cornn10nly accepted engineering practice and in compliance with applicable laws and regulations of the Commonwealth of Massachusetts and Bylaws of the Town.

1. Sources of data are listed as follows:
Existing topography, natural features and utilities are based on an instrument survey by The Morin-Cameron Group Inc. Dimensional controls are per the Groveland Zoning By-law & Subdivision Regulation.

2. Oral information furnished by:
Scott P. Cameron, P.E.

3. Actual basis of designs, source of soil and groundwater determinations, and other field determinations made:
Soil determination is as per the Natural Resources Conservation Service (NRCS) by the United States Department of Agriculture (USDA) & in-situ soil testing.

4. Other sources
Sight Distances information are as per American Association of State Highway and Transportation Officials (AASHTO). Traffic memo data are as per Institute of Transportation Engineers (ITE). Massachusetts Stormwater Handbook for stormwater design.

Seal of Professional Engineer

COMMONWEALTH OF MASSACHUSETTS
SCOTT P. CAMERON
CIVIL
No. 47601
REGISTERED
PROFESSIONAL ENGINEER

Signed
(Registered Professional Engineer)

Address 25 KENOTA AVE
HAVERHILL MA 01830

D.1.1.

FORM E

CERTIFIED LIST OF ABUTTERS

PLANNING BOARD - TOWN OF GROVELAND, MASSACHUSETTS
DATE August 1, 2024

SUBDIVISION NAME 181R School Street PLAN#___

To the Planning Board of the Town of Groveland:

The undersigned, being an applicant for approval of Preliminary/Definitive Plan of a proposed subdivision entitled

Definitive Subdivision for a Street to be Named at 181R School Street, Groveland, Massachusetts.

submits the following sketch of the land in the subdivision listing the names of the adjoining owners and the abutters to the adjoining owners in their relative positions and indicating the address of each abutter on the sketch and in a separate list, including owners of land separated from the subdivision only by a street. **The owners of all parcels within three hundred feet (300') of the applicants property shall be included on the certified list.**

Andover Real Property Management Inc.
Manager

Signature of Applicant
Groveland Redevelopment, LLC
231 Sutton Street, Suite 1B
North Andover, MA 01845
Address

To the Planning Board of the Town of Groveland

This is to certify that at the time of the last assessment for taxation made by the Town of Groveland the names and addresses of the parties assessed as adjoining owners to the parcel of land including all owners within three hundred feet (300'), shown above are as indicated on the attach list.

Date

Assessor

FORM E

CERTIFIED LIST OF ABUTTERS

PLANNING BOARD - TOWN OF GROVELAND, MASSACHUSETTS
DATE August 1, 2024

SUBDIVISION NAME 181R School Street PLAN#___

To the Planning Board of the Town of Groveland:

The undersigned, being an applicant for approval of Preliminary/Definitive Plan of a proposed subdivision entitled

Definitive Subdivision for a Street to be Named at 181R School Street, Groveland, Massachusetts.

submits the following sketch of the land in the subdivision listing the names of the adjoining owners and the abutters to the adjoining owners in their relative positions and indicating the address of each abutter on the sketch and in a separate list, including owners of land separated from the subdivision only by a street. **The owners of all parcels within three hundred feet (300') of the applicants property shall be included on the certified list.**

Andover Real Property Management Inc.
Manager

Signature of Applicant
Groveland Redevelopment, LLC
231 Sutton Street, Suite 1B
North Andover, MA 01845
Address

To the Planning Board of the Town of Groveland

This is to certify that at the time of the last assessment for taxation made by the Town of Groveland the names and addresses of the parties assessed as adjoining owners to the parcel of land including all owners within three hundred feet (300'), shown above are as indicated on the attach list.

Date

Julie Gebba
Assessor

July 31, 2024

Groveland Planning Board
183 Main Street
Groveland, MA 01834

RE: Definitive Subdivision Application
181R School Street
Groveland, MA 01834

Dear members of the Board:

As authorized signer for, 181R School Street LLC, I grant permission to the Planning Board and its agents to enter the property for necessary on-site walks and visits.

Sincerely,
Frank J. Franzone, Manager

181R School Street, LLC
5 Atkison Farm Rd
Atkison, NH

The Morin-Cameron GROUP, INC.

August 1, 2024

Groveland Planning Board
c/o Annie Schindler, Town Planner
Groveland Town Hall – 183 Main Street
Groveland, MA 01834

RE: Definitive Subdivision Application
181R School Street, Groveland, Massachusetts
Map 34, Lot 13

Dear Members of the Board:

On behalf of the applicant, Groveland Redevelopment, LLC and 181R School Street, LLC, The Morin-Cameron Group, Inc. (MCG) herby submits by hand delivery, in accordance with Groveland Subdivision Regulations (Chapter 70-3.4), the following:

- 3 copies of Form C, Application for Approval of a Definitive Plan
- 3 copies of Form D-1, Professional Engineer's Certificate
- 3 copies of Form D, Land Surveyor's Certificate
- 3 copies of Form E, Certified list of Abutters
- 12 copies of plans entitled "Definitive Subdivision for a Street to be Named in Groveland, Massachusetts at 181R School Street – (Groveland Assessor's Map 34 Lot 13) – Prepared for Groveland Redevelopment, LLC dated 7/31/24.
- Letter from owner granting permission to the Planning Board and its agents to enter the property for necessary on-site walks and visits.
- Check for $8,000.00 made payable to Town of Groveland
- Transportation Report dated 08/01/24.
- 7 copies of Technical Report dated 07/31/24.
- 7 copies of Environmental Statement Assessment dated 08/01/24.
- Waiver Request Letter dated 08/01/24.

Please contact the undersigned at (978) 373-0310 if you have any questions or comments.

Sincerely,
THE MORIN-CAMERON GROUP, INC.

Scott P. Cameron, P.E.

The Morin-Cameron GROUP, INC.

PLANNING BOARD FEE CALCULATION SHEET:

In accordance the Town of Groveland Planning Board fee schedule, the fee for a Definitive Subdivision Plan if the Preliminary Plan was not approved or more than seven months has elapsed since approval is:

$ 2,000 + $1,000 per lot

The proposed Definitive Subdivision plan proposes six lots:

Fee = $2,000 + $1,000 x 6 lots
Fee = $2,000 + $6,000

Fee = $8,000

A check for $8,000.00 made payable to Town of Groveland has been included with the Form C herewith.

Town of Groveland
Economic Development Planning & Conservation Department
183 Main Street
Groveland, MA 01834

TOWN OF GROVELAND
2024 AUG -1 A11:06
TAX COLLECTOR

MONEY RECEIVED

DATE	8/1/2024
AMOUNT	$8,000.00
NAME ON CHECK	Minco Development Corp
ADDRESS ON CHECK	231 Sutton St, Ste 1B, North Andover MA
CHECK NUMBER	4591
PROJECT NAME	181R School St Def. Subdivision App
PROJECT ACCOUNT	1001-040-43204-800-000-000
CONTACT	
NOTES	

HOLD TO LIGHT TO VIEW TRUE WATERMARK IN PAPER. HEAT SENSITIVE RED LOCK DISAPPEARS WHEN HEATED.

4591

MINCO DEVELOPMENT CORPORATION
231 SUTTON ST., STE 1B
NORTH ANDOVER, MA 01845

SalemFive®
53-7055/2113

7/30/2024

PAY TO THE ORDER OF Town of Groveland

$ **8,000.00

Eight Thousand and 00/100********** DOLLARS

Town of Groveland

MEMO

AUTHORIZED SIGNATURE

Security features. Details on back.

⑈004591⑈ ⑆211370558⑆ 1000076486 4⑈

The Morin-Cameron GROUP, INC.

July 31, 2024

Groveland Planning Board
c/o Annie Schindler, Town Planner
Groveland Town Hall – 183 Main Street
Groveland, MA 01834

RE: Definitive Subdivision – Municipality Application Notification
181R School Street, Groveland, Massachusetts
Map 31, Lot 13

Dear Members of the Board:

On behalf of the applicant, Groveland Redevelopment, LLC and 181R School Street, LLC, The Morin-Cameron Group, Inc. (MCG) has sent notice of the Application to all Municipalities abutting the Town of Groveland including the following:

- **Town of Boxford** - Planning Board, 7A Spofford Road Boxford, MA 01921
- **Town of Georgetown** – Planning Board, 1 Library Street Georgetown, MA 01833
- **City of Haverhill** - Planning Board, City Hall, 4 Summer Street, Room 201, Haverhill MA 01830
- **Town of Newbury** – Planning Board, Town Hall, 12 Kent Way, Byfield MA 01922
- **Town of West Newbury** – Planning Board, 381 Main Street, West Newbury, MA 01985

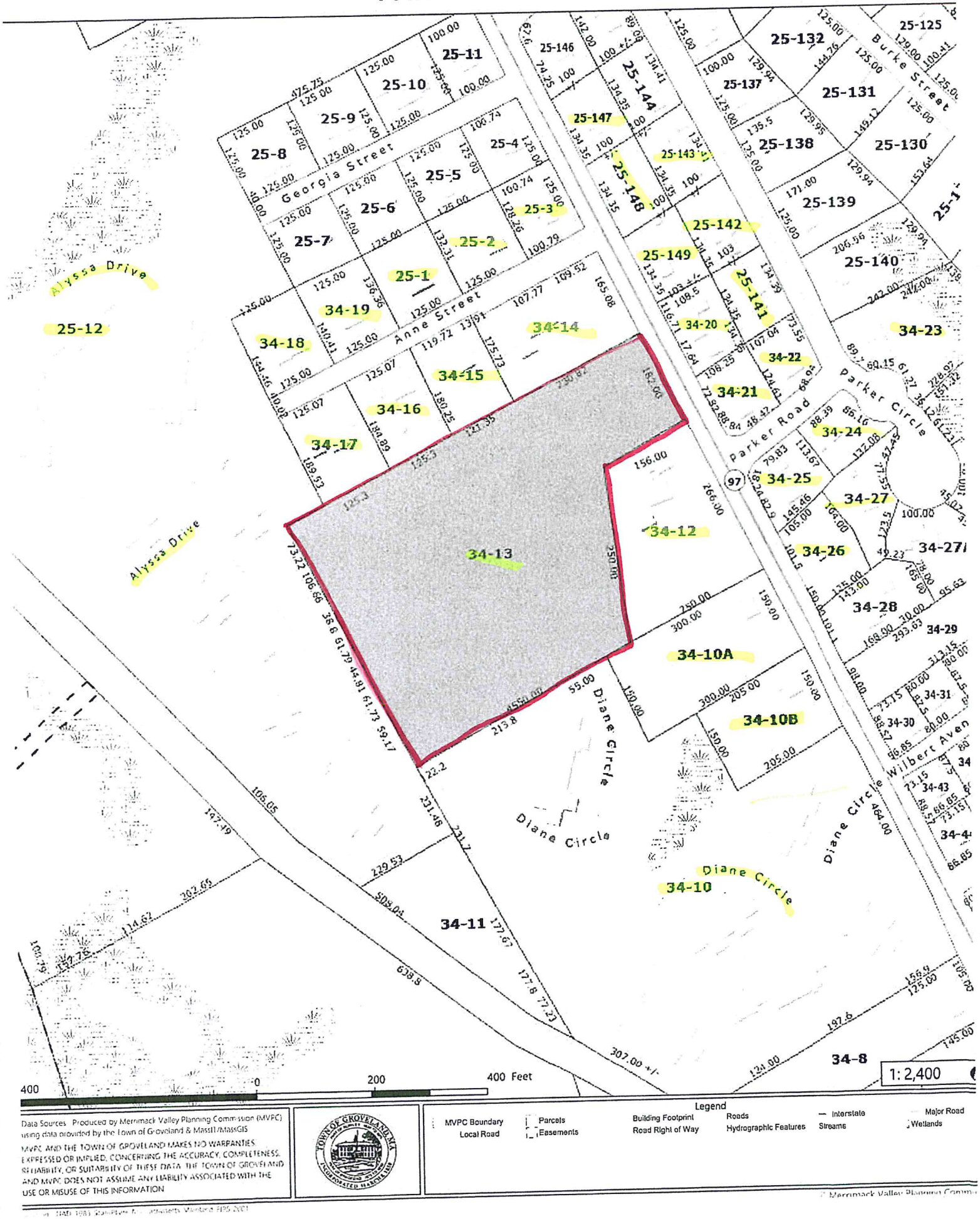
Please contact the undersigned at (978) 373-0310 if you have any questions or comments.

Sincerely,
THE MORIN-CAMERON GROUP, INC.

Lindsay Ferlauto
Executive Assistant

Town of Groveland

07/09/202



Data Sources: Produced by Merrimack Valley Planning Commission (MVPC) using data provided by the Town of Groveland & MassIT/MassGIS

MVPC AND THE TOWN OF GROVELAND MAKES NO WARRANTIES EXPRESSED OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF THESE DATA. THE TOWN OF GROVELAND AND MVPC DOES NOT ASSUME ANY LIABILITY ASSOCIATED WITH THE USE OR MISUSE OF THIS INFORMATION

Legend

MVPC Boundary
Local Road
Parcels
Easements
Building Footprint
Road Right of Way
Roads
Hydrographic Features
Interstate
Streams
Major Road
Wetlands

Merrimack Valley Planning Comm

25-001-0
WINNING JR EDWARD
WINNING JULIE
3 ANNE ST
GROVELAND, MA 01834

25-002-0
PAROLISI JEFFREY
PAROLISI SHANNON
1 ANNE ST
GROVELAND, MA 01834

25-003-0
CONDON ELAINE M
CONDON WAYNE M
169 SCHOOL ST
GROVELAND, MA 01834

25-012-701
SILVA CARLA
701 ALYSSA DR
GROVELAND, MA 01834

25-012-702
SMITH LIFE ESTATE EUGENE E
SMITH LIFE ESTATE PATRICIA P
702 ALYSSA DR
GROVELAND, MA 01834

25-012-703
LEONARDI DAVID TRS
LEONARDI CYNTHIA TRS
703 ALYSSA DR
GROVELAND, MA 01834

25-012-704
WILSON TRS RONALD J
WILSON FAMILY TRUST
704 ALYSSA DR
GROVELAND, MA 01834

25-012-705
TRULL AUDREY B
TRULL H BAILEY JR
705 ALYSSA DR
GROVELAND, MA 01834

25-012-706
FLYNN PAUL
FLYNN GAYLE
706 ALYSSA DR
GROVELAND, MA 01834

25-012-707
DUVALL ELIZABETH
707 ALYSSA DR
GROVELAND, MA 01834

25-012-708
REID BENJAMIN G
SMITH REID JUDITH A
708 ALYSSA DR
GROVELAND, MA 01834

25-012-801
TWOMEY GERALDINE
DOHERTY MAUREEN
801 ALYSSA DR
GROVELAND, MA 01834

25-012-802
MARTIN PATRICIA
802 ALYSSA DR
GROVELAND, MA 01834

25-012-803
DEWOLFE JANUS I
803 ALYSSA DR
GROVELAND, MA 01834

25-012-804
AUCOIN SANDRA A TRS
THE SANDRA A AUCOIN REV TRUST
804 ALYSSA DR
GROVELAND, MA 01834

25-012-805
FIELDS FAMILY TRUST
FIELDS DAVID M
805 ALYSSA DR
GROVELAND, MA 01834

25-012-806
DIFELICE TR MARY
MARY P DIFELICE TRUST
806 ALYSSA DR
GROVELAND, MA 01834

25-012-807
SCHEPIS JR TR PAUL A
SCHEPIS TR ANN M
807 ALYSSA DR
GROVELAND, MA 01834

25-012-808
BUCCO TRS MICHAEL D
BUCCO TRS PATRICK J
808 ALYSSA DR
GROVELAND, MA 01834

25-012-901
CAPELSON ROBERTA
901 ALYSSA DR
Groveland, MA 01834

25-012-902
KAGAN KIRCHICK ROBIN
KIRCHICK STEVEN JEFFERY
902 ALYSSA DR
GROVELAND, MA 01834

25-012-903
RODENHISER HOWARD C
RODENHISER MARGARET L
903 ALYSSA DR
GROVELAND, MA 01834

25-012-904
RIVA SUZANNE L
RIVA ANGELO JR
904 ALYSSA DR
GROVELAND, MA 01834

25-012-905
LENZIE A DAVID
LENZIE JACKIE G
905 ALYSSA DR
GROVELAND, MA 01834

25-012-906
GRAHAM ANN M
906 ALYSSA DR
GROVELAND, MA 01834

25-012-1001
MOORE TRS LINDA A
MOORE TRS DONALD P
1001 ALYSSA DR
GROVELAND, MA 01834

25-012-1002
RUSSO DONALD T
RUSSO DONNA MARIE
1002 ALYSSA DR
GROVELAND, MA 01834

25-012-1003
GAUVIN RICHARD
GAUVIN BARBARA ANN
1003 ALYSSA DR
GROVELAND, MA 01834

25-012-1004
FRIEL TRS CHARLES M
FRIEL TRS LINDA DE LYON
1004 ALYSSA DR
GROVELAND, MA 01834

25-012-1005
LOMBARDI DAVID A TRS
DAVID A LOMBARDI TRUST
1005 ALYSSA DR
GROVELAND, MA 01834

25-012-1006
STRAUSS ROGER C
STRAUSS RITA R
1006 ALYSSA DR
GROVELAND, MA 01834

25-012-1007
TOMASELLI LINDA A
1007 ALYSSA DR
GROVELAND, MA 01834

25-012-1008
SHERIDAN REV TRUST 2022 RICHARD P
SHERIDAN REV TRUST 2022 PATRICIA A
1008 ALYSSA DR
GROVELAND, MA 01834

25-012-1101
PARADY-TONDREAU ELAINE
TONDREAU LAWRENCE
1101 ALYSSA DR
GROVELAND, MA 01834

25-012-1102
DELMONACO JR THOMAS M
1102 ALYSSA DR
GROVELAND, MA 01834

25-012-1103
SZCZECHOWICZ JOSEPH
SZCZECHOWICZ KAREN L
1103 ALYSSA DR
GROVELAND, MA 01834

25-012-1104
SMITH TRS MICHELLE C
RONALD P SHWETZ IRV TRUST 2021
1104 ALYSSA DR
GROVELAND, MA 01834

25-012-1105
FAZELL JOANNE Y
1105 ALYSSA DR
GROVELAND, MA 01834

25-012-1106
MATHEWS DAVID
MATHEWS MARYBETH
1106 ALYSSA DR
GROVELAND, MA 01834

25-012-1107
FRANCIS SHEILA A
1107 ALYSSA DR
GROVELAND, MA 01834

25-012-1108
SAVASTA TRS JUDY
SAVATA FAMILY TRUST
1108 ALYSSA DR
GROVELAND, MA 01834

25-012-1201
MORAN ROCHE TRS PAMELA
JOANNE L MORAN IRREV TRUST
1201 ALYSSA DR
GROVELAND, MA 01834

25-012-1202
DARDENO (LF EST) BEVERLY R
1202 ALYSSA DR REALTY TRUST
1202 ALYSSA DR
GROVELAND, MA 01834

25-012-1203
STEHLIN TRS KEVIN T
MAMAKOS TRS KARA E
1203 ALYSSA DR
GROVELAND, MA 01834

25-012-1204
GAVIN TRS KERI
MCCOY TRS JAKE M
1204 ALYSSA DR
GROVELAND, MA 01834

25-012-1205
FIANDACA FRANK A
FIANDACA JACKIE A
1205 ALYSSA DR
GROVELAND, MA 01834

25-012-1206
FANDEL TRS ILANA M
SHUMAN TRS BARNET
1206 ALYSSA DR
GROVELAND, MA 01834

25-012-1301
MCGRANACHAN CATHERINE
MCGRANACHAN CATHY
1301 ALYSSA DR
GROVELAND, MA 01834

25-012-1302
RUSSO PHILIP LIF EST
RUSSO PATRICIA LIF EST
1302 ALYSSA DR
GROVELAND, MA 01834

25-012-1303
CHADWICK CATHLEEN
1303 ALYSSA DR
GROVELAND, MA 01834

25-012-1304
MOULISON TR MICHAEL W
MOULISON IRV TRUST
1304 ALYSSA DR
GROVELAND, MA 01834

25-012-1305
MCDEVITT CATHLEEN
1305 ALYSSSA DR
GROVELAND, MA 01834

25-012-1306
FEMINO LIFE EST PAUL A
FEMINO LIFE EST BERNADETTE M
1306 ALYSSA DR
GROVELAND, MA 01834

25-012-1307
MEDUGNO JAMES
MEDUGNO JANET
1307 ALYSSA DR
GROVELAND, MA 01834

25-012-1308
RUSSO MARY L LIF EST
RUSSO MICHAEL
1308 ALYSSA DR
GROVELAND, MA 01834

25-012-1401
CONNOR TRS THOMAS P
CONNOR TRS MARY B
1401 ALYSSA DR
GROVELAND, MA 01834

25-012-1402
KENT 2021 TRUST
KENT TR MARIE ARTHUR H
1402 ALYSSA DR
GROVELAND, MA 01834

25-012-1403
MARTINDALE TRS ANITA C
ANITA C MARTINDALE TRUST
1403 ALYSSA DR
GROVELAND, MA 01834

25-012-1404
LUCCA MARIE
FISCHER CURTIS
1404 ALYSSA DR
GROVELAND, MA 01834

25-012-1405
DRISCOLL (LF EST) DIANE T
DIANE T DRISCOLL IRV TRUST
1405 ALYSSA DR
GROVELAND, MA 01834

25-012-1406
GRAOZZO (LF EST) PRISCO
GRAOZZO (LF EST) CATERINA
1406 ALYSSA DR
GROVELAND, MA 01834

25-012-1407
FORD PAUL N
FORD MURIEL
1407 ALYSSA DR
GROVELAND, MA 01834

25-012-1408
COGLIANO TRS IDA R
SCOTINA TRS DIANE
1408 ALYSSA DR
GROVELAND, MA 01834

25-141-0
LIGOLS ALEXANDRA
SMITH DYLAN R
16 EVERGREEN LN
GROVELAND, MA 01834

25-142-0
BURKE DANA
BURKE MEMARIE
6 PARKER RD
GROVELAND, MA 01834

25-143-0
HOOD JOHN P
HOOD SUSAN M
8 PARKER RD
GROVELAND, MA 01834

25-147-0
FITZGERALD RICHARD D LIF EST
FITZGERALD NANCY J LIF EST
180 SCHOOL ST
GROVELAND, MA 01834

25-148-0
PROVENCAL TRS GEORGE R
PROVENCAL TRS MARY R
182 SCHOOL ST
GROVELAND, MA 01834

25-149-0
GORE JASON E
MACHIA-GORE HEATHER A
184 SCHOOL ST
GROVELAND, MA 01834

34-010-101
TOPHAM TRS LAURA R
LAURA R TOPHAM 2020 REV TR
101 DIANE CR
GROVELAND, MA 01834

34-010-102
ENSTAD SONJA L TRS
MCDONALD MARY BETH TRS
102 DIANE CR
GROVELAND, MA 01834

34-010-103
BEIDLER GARY
BEIDLER MARY F
103 DIANE CR
GROVELAND, MA 01834

34-010-104
SALOIS TR PATRICIA M
104 DIANE CIRCLE NOMINEE TR
104 DIANE CR
GROVELAND, MA 01834

34-010-105
PEABODY AUDREY J
105 DIANE CR
GROVELAND, MA 01834

34-010-106
MURRAY LIFE ESTATE RICHARD J
MURRAY LIFE ESTATE D ELIZABETH
106 DIANE CR
GROVELAND, MA 01834

34-010-201
CEDORCHUK TRS KARA B
MCWALTERS FAMILY IRREV TRUST LINDA J
201 DIANE CIR
GROVELAND, MA 01834

34-010-202
SHEEHAN HOLLY
SHEEHAN JOHN
202 DIANE CR
Groveland, MA 01834

34-010-203
SHIMMIN CANDENCE E
BUCCHIERE CANDICE A
203 DIANE CR
GROVELAND, MA 01834

34-010-204
HALUPOWSKI TRS NOEL J
JANET NOLAN IRREV TRUST
204 DIANE CIR
GROVELAND, MA 01834

34-010-205
SELLERS TRS ROBERT J
COOKE TRS KAREN L
205 DIANE CR
GROVELAND, MA 01834

34-010-206
SADOWSKI SUSAN R
SADOWSKI FRANCIS J
206 DIANE CR
GROVELAND, MA 01834

34-010-301
PERRY TR DAVID C
JOHN C PERRY LIVING TRUST
9 SUMMER ST APT 314
DANVERS, MA 01923

34-010-302
DIORIO JOHN C TRS
DIORIO MARLENE L TRS
302 DIANE CR
GROVELAND, MA 01834

34-010-303
GARABEDIAN RICHARD
GARABEDIAN SHIRLEY
303 DIANE CR
GROVELAND, MA 01834

34-010-304
WHITE JOSEPH A LIF EST
WHITE ANN L LIF EST
304 DIANE CR
GROVELAND, MA 01834

34-010-305
BAXTER (LE EST) LEAMAN
BAXTER (LF EST) PATRICIA M
305 DIANE CR
GROVELAND, MA 01834

34-010-306
DORLANDO KAREN
306 DIANE CIR
GROVELAND, MA 01834

34-010-401
MCCORMACK HELEN L
401 DIANE CR
GROVELAND, MA 01834

34-010-402
CASEY WILLIAM J
CASEY ELAINE R
402 DIANE CR
GROVELAND, MA 01834

34-010-403
KERIVAN JOHN E
KERIVAN DIANE M
403 DIANE CIR
GROVELAND, MA 01834

34-010-404
OCONNOR LIFE ESTATE ROBERT J
OCONNOR LIFE ESTATE JOAN K
404 DIANE CIR
GROVELAND, MA 01834

34-010-405
WALLACE MARGARET
WALLACE RICHARD H
405 DIANE CR
GROVELAND, MA 01834

34-010-406
GREEN LORRAINE
406 DIANE CIR
GROVELAND, MA 01834

34-010-407
LUCEY SUSAN
407 DIANE CR
GROVELAND, MA 01834

34-010-408
LEONE MICHAEL
LEONE MELINDA
408 DIANE CR
GROVELAND, MA 01834

34-010-501
DOHERTY PAUL E
DOHERTY JOAN M
501 DIANE CR
GROVELAND, MA 01834

34-010-502
DEWHIRST PATRICIA
C/O DONALD GREANEY
2 MILL ST EXT
GROVELAND, MA 01834

34-010-503
MARTINESE ANN MARIE
503 DIANE CR
GROVELAND, MA 01834

34-010-504
CHOUINARD TRS MARTIN
CHOUINARD TRS JOCELYN E
504 DIANE CIR
GROVELAND, MA 01834

34-010-505
MCCAFFREY TRS JUDITH A
MCCAFFREY 2013 FAMILY TRUST
505 DIANE CR
GROVELAND, MA 01834

34-010-506
GOLDEN JOSEPH TRS
GOLDEN IRENE TRS
506 DIANE CR
GROVELAND, MA 01834

34-010-601
REID WILLIAM
REID NANCY
601 DIANE CIR
GROVELAND, MA 01834

34-010-602
MELCHER JOHN
MELCHER CAROL
602 ALYSSA DR
GROVELAND, MA 01834

34-010-603
FROST SHAWN
MICHELE E FROST REV TRUST
603 DIANE CR
GROVELAND, MA 01834

34-010-604
COSTELLO JOHN J
COSTELLO MARY LOU
604 ALYSSA DR
GROVELAND, MA 01834

34-010-605
DEVOE TR ANDREA
BARBARA GIANNATTASIO IRV TRUST
605 ALYSSA DR
GROVELAND, MA 01834

34-010-606
CARDINALE TRS PAUL A
JOAN F CARDINALE TRUST 2015
606 DIANE CR
GROVELAND, MA 01834

34-010-607
EGENBERG JANICE D TRS
THE HARVEY IRREVOCABLE TRUST
607 DIANE CR
GROVELAND, MA 01834

34-010-608
BRUGMAN TRS TERESA
TERESA BRUGMAN REV TRUST
608 ALYSSA
GROVELAND, MA 01834

34-010-A
HILEMAN REALTY TRUST
HILEMAN TR BARBARA
185 SCHOOL ST
GROVELAND, MA 01834

34-010-B
HART NEIL
187 SCHOOL ST
GROVELAND, MA 01834

34-012-0
DEVEAU DERRICK M
RHOADES ANDREA M
181 SCHOOL ST
GROVELAND, MA 01834

34-013-0
181R SCHOOL STREET LLC
5 ATKINSON FARM RD
ATKINSON, NH 03811

34-014-0
HOMES OF CARE III INC
102 GLENN ST
LAWRENCE, MA 01843

34-015-0
MASSERO STEVEN
MASSERO JESSICA
4 ANNE ST
GROVELAND, MA 01834

34-016-0
MANISCALCO JEFFREY
MANISCALCO ASHLEY KATE
6 ANNE ST
GROVELAND, MA 01834

34-017-0
RHODES GARY
8 ANNE ST
GROVELAND, MA 01834

34-018-0
STAUBLE ERIC
120 MADBURY RD
DURHAM, NH 03824

34-019-0
SANFORD WARREN R (LF EST)
SANFORD ROSEMARIE (LF EST)
5 ANNE ST
GROVELAND, MA 01834

34-020-0
BERUBE TRS SCOTT
BERUBE REALTY TRUST
186 SCHOOL ST
GROVELAND, MA 01834

34-021-0
KOWALICK KEITH C
KOWALICK ANNE MARIE
188 SCHOOL ST
GROVELAND, MA 01834

34-022-0
ARSENAULT KENNETH J
ARSENAULT GAIL A
2 PARKER RD
GROVELAND, MA 01834

34-023-0
COPELAS ALETHEA B
COPELAS CHAD
3 PARKER RD
GROVELAND, MA 01834

34-024-0
PERKINS WILLIAM L
PERKINS JANICE
1 PARKER RD
GROVELAND, MA 01834

34-025-0
SCOTT JR ALFRED A
SCOTT MAUREEN C
190 SCHOOL ST
GROVELAND, MA 01834

34-026-0
BEDARD BRUCE R
192 SCHOOL ST
GROVELAND, MA 01834

34-027-0
WINNINGHAM JAMES T
WINNINGHAM ERIN G
1 PARKER CR
GROVELAND, MA 01834

41-041-0
NEIMAR FARM LLC
2 ORCHARD RD
GLOUCESTER, MA 01930

42-062-0
MASSACHUSETTS ELECTRIC CO
PROPERTY TAX DEPT
40 SYLVAN RD
WALTHAM, MA 02451

CERTIFIED
Board of Assessors
Groveland, MA

ENVIRONMENTAL ASSESSMENT
181R School Street Subdivision

The following environmental impact assessment has been prepared in accordance with the Groveland Subdivision Regulations "Schedule A".

A. Physical Environment

- ***Describe the general physical conditions of the site, including amounts and varieties of vegetation; general topography; unusual geologic, scenic, and historical features; trails, and open space links; and indigenous wildlife.***
  The existing site consists of a parcel located at 181R School Street, which encompasses a total area of approximately 345,495 square feet (5.65 acres). The site is comprised by a mix of deciduous and evergreen trees, and understory vegetation such as shrubs and grasses. The site topography is generally uniform and features slopes varying from 4% to 12%, with no steep slopes, making the area suitable for residential development while maintaining the natural drainage patterns. Soil testing has been performed on-site and no unusual geologic formations were noted. The soil composition is primarily sandy loam, but loamy sand and gravelly sand soils have been encountered as well. There are no known historical landmarks or features on the site, nor designated trails and open space links within the site itself. The site contains some indigenous wildlife mammals and birds.

- ***Describe how the project will affect these features.***
  The project will involve the construction of a road, installation of a stormwater management system, installation of new utilities and landscape improvements to service the proposed six lots. Associated with the construction of the items mentioned previously some disturbance will need to occur, including the removal of existing vegetation, grading, and earthwork. Although the proposed project will impact some of the site features, some measures will be taken to mitigate the adverse effects on the site features, such as preserving a wooded buffer to the extent possible around the perimeter of the property and, planting native tree species and landscaping throughout the site; maintaining natural drainage patterns to maximum extent practicable including incorporation of sustainable best management practices permeable pavement and rain gardens; and managing stormwater runoff on-site, that will reduce the volume and peak rates of stormwater running off to abutting properties.

- ***Provide a complete physical description of the project and relationship to surrounding area***.
  The site is located within a predominantly residential area of Groveland. The surrounding proprieties are single-family and multi-family homes on similar or smaller lots than what is proposed. The lots fully comply with the Groveland Zoning and Subdivision regulations (note 2 waivers requested to better conform to neighborhood and sustainable practices) and best practices.

B. Surface Water and Soil

- ***Describe location, extent, and type of existing water and wetland, including existing surface drainage characteristics, both within and adjacent to the project.***
  The project site does not contain wetlands or major water bodies. The nearest wetlands and a small stream are located on an open-space area more than 500 feet to the west of the site. The stream carries stormwater runoff to the Merrimack River, which is located more than 4,000 feet north of the property. The adjacent properties exhibit similar drainage characteristics, with stormwater runoff flowing west towards the stream referenced previously. The proposed project will alter the existing surface drainage patterns temporarily during development. The stormwater management system has been designed to mitigate any impacts and replicate or improve existing stormwater conditions. The project will maintain the drainage characteristics to the maximum extent practicable, will utilize of best management practices (BMPs), will provide groundwater recharge and, attenuate the peak flow and volume of stormwater flowing to the adjacent properties.

- ***Describe the methods to be used during construction to control erosion and sedimentation i.e. use of sediment -basins and type of mulching, matting, or temporary vegetation.***
  The project proposes to clear approximately 4.4 acres of land, and maintain a tree buffer around the perimeter, to the extent possible. During construction, disturbed soils within this area will need to be managed to ensure that dust and erosion are contained on site. Erosion control details are included in the Definitive Subdivision Plans and Construction Phase Best Management Practices Operations and Maintenance Plan is included within the Technical Report. The plan contains provisions for erosion and sediment control measures including, silt fence, mulch sock, inlet protection, grading, topsoiling, seeding, dust control and inspection/maintenance. These good housekeeping and oversight measures have a long-standing track record, endorsed by the EPA and DEP for effectively managing erosion and pollution sources during construction.

  The project falls under the Environmental Protection Agency (EPA) Construction General Permit (CGP). An eNOI from the EPA will be required and obtained prior to construction. This will involve preparation Stormwater Pollution Prevention Plan and weekly inspections of erosion and sediment controls that will ensure the controls are effective throughout construction. Minimum weekly monitoring by a licensed SWPPP Inspector is required throughout the duration of construction until the site reaches a stabilized condition.

- ***Describe approximate size and location of land to be cleared at any given time and length of time and exposure; covering of soil; stockpiles; and other control methods used. Evaluate effectiveness of proposed methods on the site and on the surrounding areas.***
  The road is expected to take 3-4 months to construct to binder. Each home will take up to 12-months to construct, multiple homes will be constructed concurrently. The total duration of the road and home construction is expected to take 2 to 3 years depending on market conditions, supply of materials and availability of labor.

- *Describe the permanent methods to be used to control erosion and sedimentation. Include description of:*
  (1) *Any areas subject to flooding or ponding.*
  A surface drainage system with capacity to convey the 100-year storm event has been designed to prevent flooding or ponding within the site and abutting properties, and to minimize erosion.
  (2) *Proposed surface drainage system.*
  Two infiltration basins and four rain gardens are being proposed to mitigate, renew, and infiltrate stormwater runoff to avoid flooding or ponding on site and surrounding areas. These systems will feature appropriate treatment BMPs to remove sediment from stormwater prior to discharge.
  (3) *Proposed land grading and permanent vegetative cover.*
  All vegetated areas will be loamed and seeded to stabilize exposed soils and will feature plantings with root systems that will provide further stabilization. Slopes are intended to be no steeper than three horizontal to one vertical unless a retaining wall, rock or manufactured product is used.
  (4) *Methods to be used to protect existing vegetation.*
  A limit of work has been established and a silt fence will be installed around it. A mulch sock fence and a temporary sediment forebay are being proposed to manage sedimentation control. A wooded tree buffer is intended to be preserved to the maximum extent possible. The silt fence will be installed at the start of construction to establish the limit of work for the road and lots. Some lots may desire to clear more or less trees based on owner preference. A conservative limit of clearing and impervious coverage was presumed for the design to account for this variability in the lot construction.
  (5) *The relationship of the development to the topography.*
  Throughout the site, the topography has been maintained to the maximum extent practicable, with finished grades varying no more than two feet from existing conditions to proposed conditions.
  (6) *Any proposed alterations of shorelines, marshes or seasonal wet areas.*
  No alteration of shorelines, marshes or seasonal wet areas are proposed.
  (7) *Any existing or proposed flood control or wetland easements.*
  There are no flood controls or wetlands within the site.
  (8) *Estimated increase of peak runoff caused by altered surface conditions, and methods to be used to return water to the soils and best management practices (BMP's) to be used to meet the requirements of the Massachusetts Stormwater Policy Act [Handbook].*
  The stormwater management system has been designed to decrease the peak rate of runoff from all storm events. The project will provide a total of 1,903 cubic feet of ground water recharge where 1,648 cubic feet is required through the proposed infiltration basins and rain gardens, see Stormwater Management Calculations within the Technical Report. Additionally, water quality volume will be provided by the utilization of hydrodynamic separators and infiltration.

- *Completely describe sewage disposal methods. Evaluate impact of disposal methods on surface water, soils, and vegetation.*
  The design will utilize individual ejector pumps to a common force main in the new road. A manhole near School Street will receive the wastewater and by gravity, direct it to the

municipal main in School Street. All sewage is expected to be domestic wastewater and will comply with any Town of Groveland requirements.

C. Subsurface Conditions

- ***Describe any limitations on the proposed project caused by sub-surface soil and water conditions, and methods to be used to overcome them.***
  The soils encountered on-site are very well drained soils with medium to high infiltration rates. Therefore, limitations on the proposed project caused by sub-surface soil and water conditions are not anticipated.
- ***Describe procedures and findings of percolation tests conducted on the site.***
  Test holes were excavated to determine soil type, consistency, and depth to seasonal high-water table. A high-water table was not identified in any test holes, so it occurs below the depth of the test hole excavation. Percolation tests are for onsite wastewater disposal systems and not applicable to this development because it has municipal sewer available.
- ***Evaluate impact of sewage disposal methods on quality of subsurface water.***
  The proposed sewage disposal method utilized is via a closed system to the municipal sewer. There are no impacts to subsurface water quality at the site due to wastewater.

D. Town Services

- ***Describe estimated traffic flow at peak periods and proposed circulation pattern.***
  A Transportation Report dated July 31, 2024, has been included within this submittal. The results of the trip generation estimate that the proposed subdivision will generate a negligible impact on the public network.
- ***Describe locations and number of vehicles accommodated in off street parking areas.***
  The final lot design has not yet been completed. However, the road was designed in full compliance with the Groveland Zoning regulations and will comply with the required off-street parking.
- ***Describe effect of project on police and fire protection services.***
  The project will not have a measurable impact on police and fire due to its small size. Both police and fire departments are located nearby the site so in the event of an emergency, response time will be minimal. Two fire hydrants have been proposed on-site and the road was designed to ensure emergency vehicle access to facilitate these services.
- ***Describe effect of project on educational services.***
  The proposed subdivision will likely increase the number of school-aged children in the area, resulting in a modest rise in demand for educational services. Tax revenue generated from the new homes will offset some of the cost of new school children entering the school system. According to US census data from 2020, Groveland has approximately 2.58 persons per household and 21.8% of its population is under 18 years old. Assuming all children go to Groveland elementary or Pentucket Regional High School, it is expected that 4 to 5 school age children reside in this development at a given time. It should be noted that the Regional Whittier Technical High School is nearby, and some children are placed in private schools. This estimate is conservative.
- ***Describe effect of project on public works department services.***
  The road, once constructed, would be sought to become a public road. Plowing and maintenance will be required by the public works department thereafter. New tax revenue

generated by the homes will offset the cost of maintenance of the road. The new road would also be subject to additional state funds under Ch.90.

- *Describe the effect of the project on the Town water supply and distribution system.*
  Based on a conservative five bedrooms per dwelling, water consumption is expected to be no more than 2,200 gallons per day based on 50% of the Title 5 flows. Water utility bills will offset the cost of this water consumption.

- *Describe the effect of the project on the Town sewer system if the area is to be sewered.*
  Based on title 5 flows, the project will generate approximately 4,400 gallons per day of total wastewater flow. Sewer impacts will be mitigated with sewer fees that the homeowners pay based on usage.

E. Human Environment

- *Provide a tabulation of proposed buildings by type, size (number of bedrooms, floor area), ground coverage, and a summary showing the percentage of the tract to be occupied by buildings, parking and other paved vehicular areas, and usable open space.*
  Final lot design has not yet been completed; therefore, the type and size of buildings have not been established. The Site Plan on the Definitive Subdivision Plan depicts conceptual lot improvements for the purpose of demonstrating constructability. Sheet C-3 includes dimensional and lot coverage information for each lot. Each lot complies with the zoning bylaw with respect to shape, size, and frontage. Open space will be private on each lot.

- *Describe type of construction, building materials used, location of common areas, location and types of service facilities (laundry, trash. garbage disposal).*
  The homes are not designed until after the road is constructed when a building permit can be obtained. It is anticipated that they will be of wood frame construction in a style that is marketable for the region. They will include all services available including natural gas.

- *State proximity to transportation, shopping, and educational facilities, including active and passive types; and age groups participating, and state whether recreational facilities and open space are available to all residents.*
  School Street connects southerly Main Street, Route 113, providing access to Interstate 95. Northerly, School Street connects with Route 133 and Interstate 95. The Haverhill MBTA is located approximately 4 miles from the site and there is a bus stop less than a mile away from the site on Main Street. Grocery stores are located less than 3 miles away. Dr. Elmer Bagnall Elementary school is located about 0.6 miles from the site, Pentucket Regional Middle and High Schools are located approximately 3.5 miles from the site. There are various parks nearby the property such as Veasey Memorial Park and Groveland Pines Recreation Area, both within 2 miles from the property.

F. General Impact

- ***Summarize briefly the environmental impact on the entire Town with supporting reasons.***

  According to US Census data, Groveland has a 2023 population of 6,743 residents and 2,613 households. The project will add 8 new dwellings and approximately 20 new residents. This represents only a 0.12% increase in population and 0.3% increase in households. It is a very small project that will have a de minimis impact on the community when compared to the additional tax revenue that it generates for 8 dwellings compared to undeveloped land in the current condition. Housing is also in severe demand regionally and this project provides a positive step towards adding this housing. The mix of single- and two-family dwellings provides a variety of housing options. The two-family dwellings are within financial reach of more families than a single-family dwelling. The project fully complies with current stormwater regulations and best practices.

The Morin-Cameron GROUP, INC.

August 1, 2024

Groveland Planning Board
c/o Annie Schindler, Town Planner
Groveland Town Hall – 183 Main Street
Groveland, MA 01834

RE: Waiver Request Letter – Definitive Subdivision Application
181R School Street, Groveland, Massachusetts
Map 34, Lot 13

Dear Members of the Board:

On behalf of the applicant, Groveland Redevelopment, LLC and 181R School Street, LLC, The Morin-Cameron Group, Inc. (MCG) hereby requests for the following waivers from the Town of Groveland Subdivision Rules and Regulations:

- ***70-4.3. (H)(5) "Proposed new intersections along one side of an existing street shall, wherever practicable, coincide with any existing intersections on the opposite side of such street. Where streets intersect major streets, their alignment shall be continuous. Intersections of major streets shall be at least 800 feet apart, and minor streets shall be at least 400 feet apart."***
  The applicant requests a waiver to reduce the intersection separation of 400 feet to 300 feet. This waiver is in the public interest by allowing access to land for development of much needed housing. The housing types include two-family dwellings which are more economically accessible to younger families. It is in keeping with the neighborhood in that adjacent intersections with adjacent minor streets range from 217 feet (Doris to Wilbert), 300 feet (Anne to Georgia) to 320' (Carilda to Abbott). The proposed intersection meets AASHTO standard for stopping sight distance, is a very low volume minor road and is geometrically designed in accordance with the Groveland Subdivision Regulations.

- ***70-4.9(B) "Bituminous concrete sidewalks shall conform to the material and construction methods as specified in Section 701 of the MassDOT Standard Specifications."***
  A waiver is requested from the technical requirements for sidewalk and driveway apron construction to install permeable pavement. Modern best engineering practice weighs heavily on sustainable design, and this is in the public interest of environmental protection. The homes will be constructed to the current Mass Building Code which is highly energy and water efficient. The road and site design also took into consideration sustainable measures in implementing bioretention rain gardens and infiltration basins as well as proprietary treatment practices to meet and exceed the state and Groveland stormwater standards. As part of this effort of sustainable design, the sidewalks and driveways were earmarked to be permeable pavement. This are low volume or no traffic volume surfaces that will hold up well as permeable pavement. Permeable pavement typically stays drier which means less chance of ice forming on sidewalk/pedestrian areas.

Finally, as a conservative design measure, the sidewalks and driveways were assumed to be impervious, so granting of this waiver does not reduce size of other infiltration stormwater practices in the project.

Please contact the undersigned at (978) 777-8586 if you have any questions or comments.

Sincerely,
THE MORIN-CAMERON GROUP, INC.

Scott P. Cameron, P.E.
Vice President

The Morin-Cameron GROUP, INC.

August 1, 2023

Groveland Planning Board
c/o Annie Schindler, Town Planner
Groveland Town Hall – 183 Main Street
Groveland, MA 01834

RE: Transportation Report
Definitive Subdivision - 181R School Street

Dear Members of the Board:

On behalf of the applicant, Groveland Redevelopment, LLC & 181R School Street, The Morin-Cameron Group, Inc. (MCG) hereby submits this Transportation Report associated with a 6-lot Definitive Subdivision located at 181R School Street in Groveland, Massachusetts. The project proposes to subdivide the existing parcel into 4 single-family and 2 two-family residence lots with frontage to a proposed road for a total of 8 potential dwellings. The access and egress will be through a 'Proposed Street to be Named' that will intersect with School Street. This report is intended to satisfy the points of Section 70-43-.4(A)(20) of the Groveland Subdivision Regulations.

Trip Generation

The Institute of Transportation Engineers (ITE) publication Trip Generation Manual, 11th Edition – Volume 3, is the industry accepted source for trip generation information for various land uses throughout the United States. Trip rates from the ITE Land Use Code (LUC) 210 – Single-family detached housing – was utilized to estimate the trips generated by the proposed subdivision during the weekday and weekend morning and evening peak hours. The single-family attached housing includes any single-family housing detached homes on individual lots. A two-family dwelling may have less trips so for this analysis, they were conservatively assumed to have the same trips as a larger, single-family dwelling. A typical site surveyed is a suburban subdivision. The trip data is attached to this document. Calculations and a summary of the ITE Trip Generation is noted below:

Average Rate (by ITE) x Number of Dwellings = Average Trip number

<u>Average Weekday Daily:</u>

Average Rate = 9.43

Number of dwellings = 8

Average trip number = 9.43 x 8 => Average trip number = 75 (vehicles entering and exiting)

Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.:

Average Rate = 0.70

Number of dwellings = 8

Average trip number = 0.7 x 8 => Average trip number = 6

Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.:

Average Rate = 0.94

Number of dwellings = 8

Average trip number = 0.94 x 8 => Average trip number = 8

Saturday Entire Day:

Average Rate = 9.48

Number of dwellings = 8

Average trip number = 9.48 x 8 => Average trip number = 76

Sunday Entire Day:

Average Rate = 8.48

Number of dwellings = 8

Average trip number = 8.48 x 8 => Average trip number = 68

Time Period/Direction	**ITE LUC 210**
Average Weekday Daily	75 vehicle trips
Weekday AM Peak Hour	
Enter	1 vehicle trips
Exit	5 vehicle trips
Total	6 vehicle trips
Weekday PM Peak Hour	
Enter	5 vehicle trips
Exit	3 vehicle trips
Total	8 vehicle trips
Saturday Entire Day	
Enter	38 vehicle trips
Exit	38 vehicle trips
Total	76 vehicle trips
Sunday Entire Day	
Enter	34 vehicle trips
Exit	34 vehicle trips
Total	68 vehicle trips

The number of vehicle trips depicted in the table hereon are calculated based on the number of dwellings. According to those calculations, the proposed development is anticipated to generate an average of 75 new vehicle trips entering and exiting during a weekday. During the peak hours, 1 new car every 20 minutes or 6 trips in the AM peak hour, 8 new trips or 1 car every 15 minutes in the PM peak hour. During weekend days, 76 daily trips on Saturday and 68 daily trips on Sunday.

Sight Distance

To identify possible safety hazards associated with site access and egress, MCG has prepared a sight distance evaluation at the proposed intersection. This evaluation is to determine if the available sight distances for vehicles exiting the site are adequate. The available sight distances were compared with minimum requirements established by the American Association of Highway and Transportation Officials (AASHTO) – "A policy On Geometric Design of Highways and Streets; 2018 & 2004". Vehicle speeds were not measured for this site due to the small size of the project. Conservatively, the posted speed limit of 40 miles per hour (MPH) was utilized. The site is also near the Bagnell School which has a lower posted speed limit of 20 MPH during school hours (commuter hours). This section of road is also heavily monitored by local law enforcement. Therefore, the posted speed limit is an acceptable design speed for this analysis.

Stopping Sight Distance (SSD) is the minimum distance required for a vehicle traveling at a certain speed to safely stop before reaching a stationary object in the road. It is measured from an eye height of 3.5 feet to an object height of 2 feet above the street level.

The SSD at the proposed intersection was measured and compared to minimum requirements as established by AASHTO based on the posted speed limit of 40 MPH. A left-turn from stop requires the longest SSD.

Location/Direction	Required SSD (40 MPH)	Measured
North of Prop. Street	305 feet	>500 feet
South of Prop. Street	305 feet	>500 feet

Intersection Sight Distance (ISD) measures a line of sight from the height of driver's eye (3.5 feet), seated 15 feet back from the fog line or edge of a travelled way, to the right and to the left, to an object in the highway that is 3.5 feet high.

The ISD at the proposed intersection was measured and compared to minimum requirements as established by AASHTO based on the posted speed limit of 40 MPH.

Location/Direction	Required ISD (40 MPH)	Measured
North of Prop. Street	445 feet	>500 feet
South of Prop. Street	445 feet	>500 feet

As shown on the tables, the available SSD and ISD exceeds AASHTO's minimum recommendations for safe operations at the site driveway.

Conclusion

The results of the trip generation estimate indicate that the proposed 6-lot single-family and two-family subdivision will be not have noticeable impact on School Street. Given the very small scale of this project, only 1 new car every 20 minutes will be generated in the AM peak hour and 7 new trips, or 1 car every 15 min will be generated in the PM peak hour: averaging 76 vehicle trips during a weekday. During the weekend entire day, 76 daily trips on Saturday and 68 daily trips on Sunday. These minimal increases will not be noticeable on the adjacent roadway network. Sight lines at the proposed driveway will exceed AASHTO recommendations for safe operations, indicating no safety issues at the proposed driveway.

Should you have any questions or require additional information, please contact the undersigned at (978) 373-0310.

Sincerely,
THE MORIN-CAMERON GROUP, INC.

Scott P. Cameron, PE
Vice-President

Enclosures

Cc: Groveland Redevelopment, LLC

Land Use: 210
Single-Family Detached Housing

Description

A single-family detached housing site includes any single-family detached home on an individual lot. A typical site surveyed is a suburban subdivision.

Specialized Land Use

Data have been submitted for several single-family detached housing developments with homes that are commonly referred to as patio homes. A patio home is a detached housing unit that is located on a small lot with little (or no) front or back yard. In some subdivisions, communal maintenance of outside grounds is provided for the patio homes. The three patio home sites total 299 dwelling units with overall weighted average trip generation rates of 5.35 vehicle trips per dwelling unit for weekday, 0.26 for the AM adjacent street peak hour, and 0.47 for the PM adjacent street peak hour. These patio home rates based on a small sample of sites are lower than those for single-family detached housing (Land Use 210), lower than those for single-family attached housing (Land Use 251), and higher than those for senior adult housing -- single-family (Land Use 251). Further analysis of this housing type will be conducted in a future edition of *Trip Generation Manual*.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

For 30 of the study sites, data on the number of residents and number of household vehicles are available. The overall averages for the 30 sites are 3.6 residents per dwelling unit and 1.5 vehicles per dwelling unit.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Arizona, California, Connecticut, Delaware, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Jersey, North Carolina, Ohio, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, Virginia, and West Virginia.

Source Numbers

100, 105, 114, 126, 157, 167, 177, 197, 207, 211, 217, 267, 275, 293, 300, 319, 320, 356, 357, 367, 384, 387, 407, 435, 522, 550, 552, 579, 598, 601, 603, 614, 637, 711, 716, 720, 728, 735, 868, 869, 903, 925, 936, 1005, 1007, 1008, 1010, 1033, 1066, 1077,1078, 1079

Single-Family Detached Housing
(210)

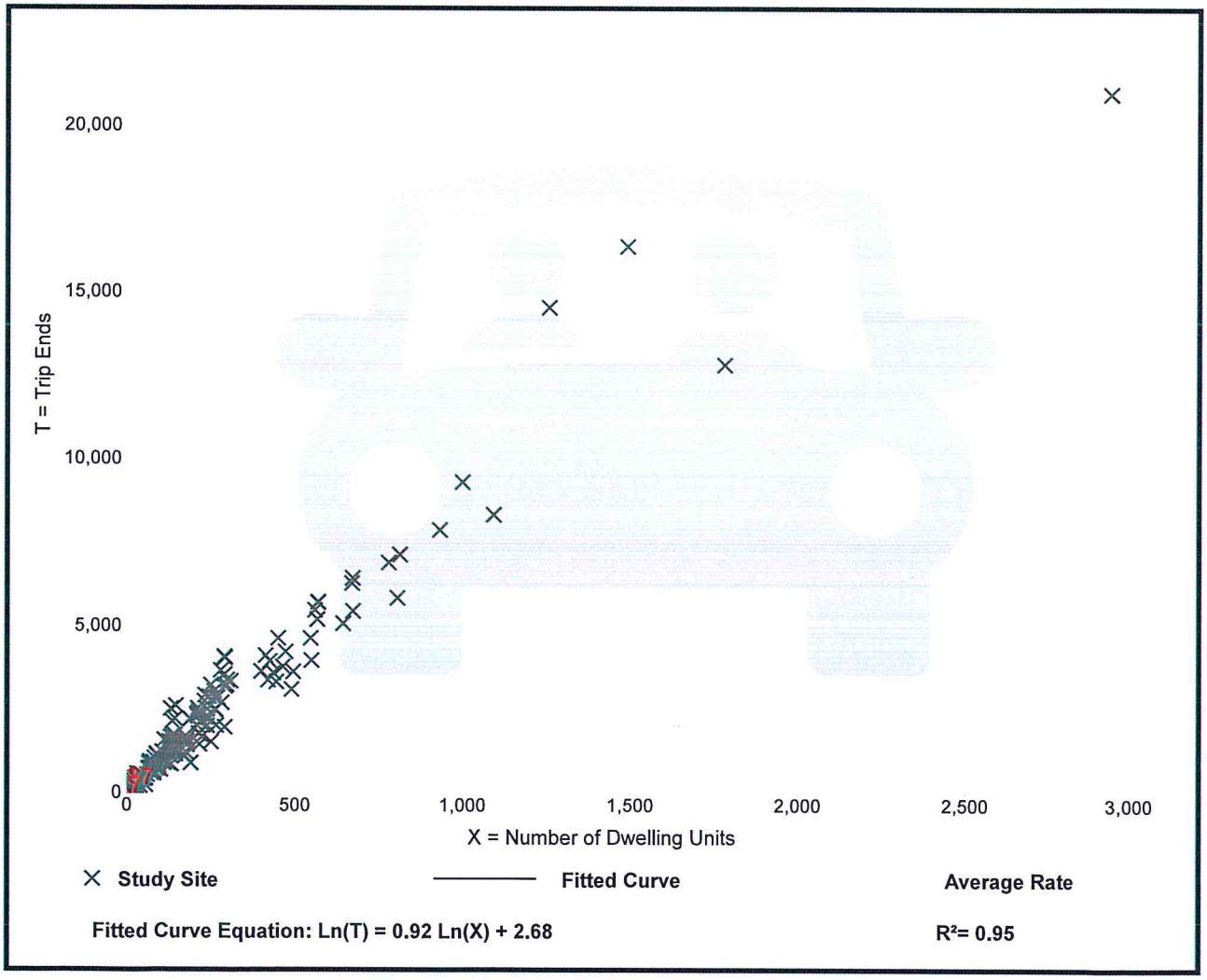
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



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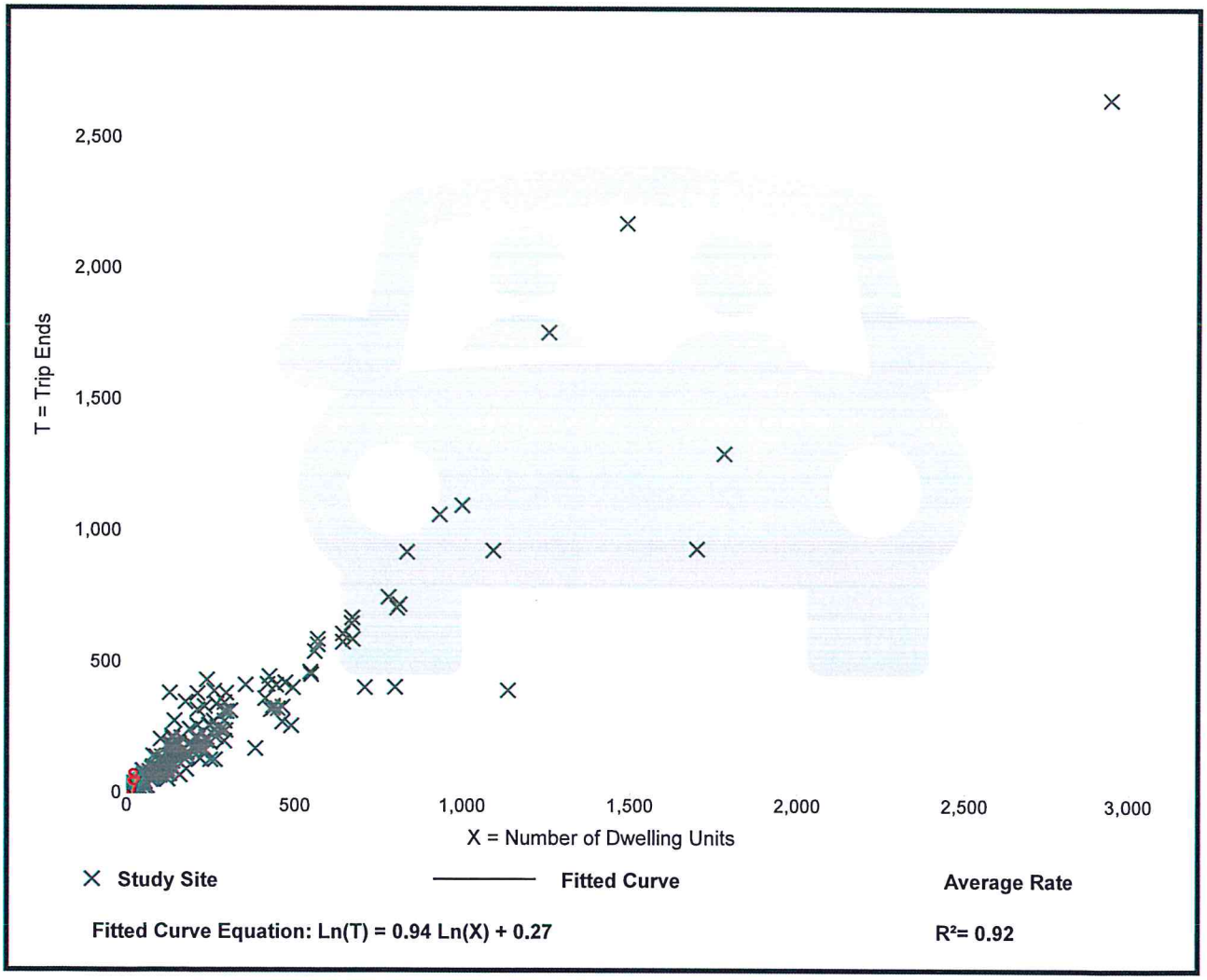
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 208
Avg. Num. of Dwelling Units: 248
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



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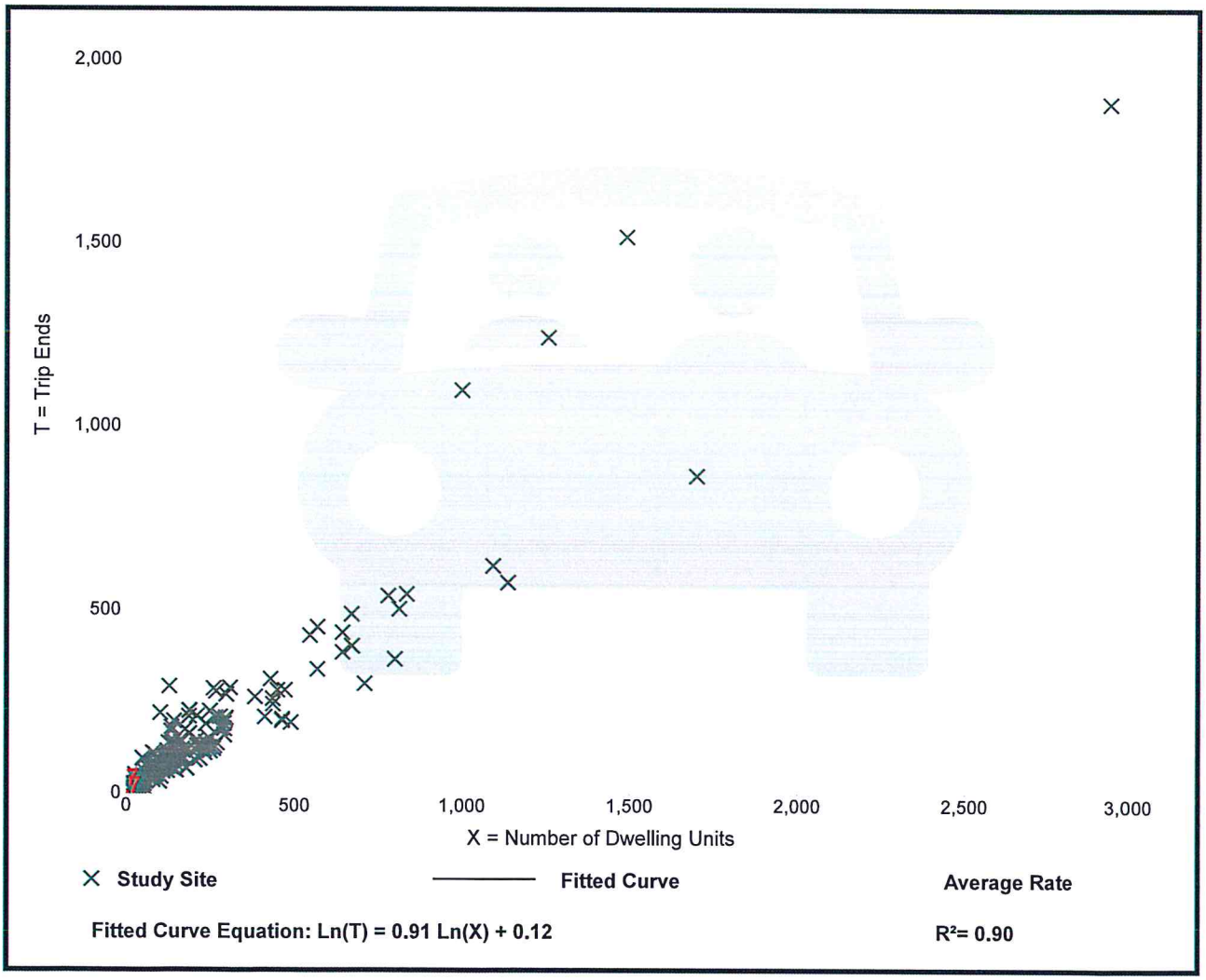
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 192
Avg. Num. of Dwelling Units: 226
Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



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Single-Family Detached Housing
(210)

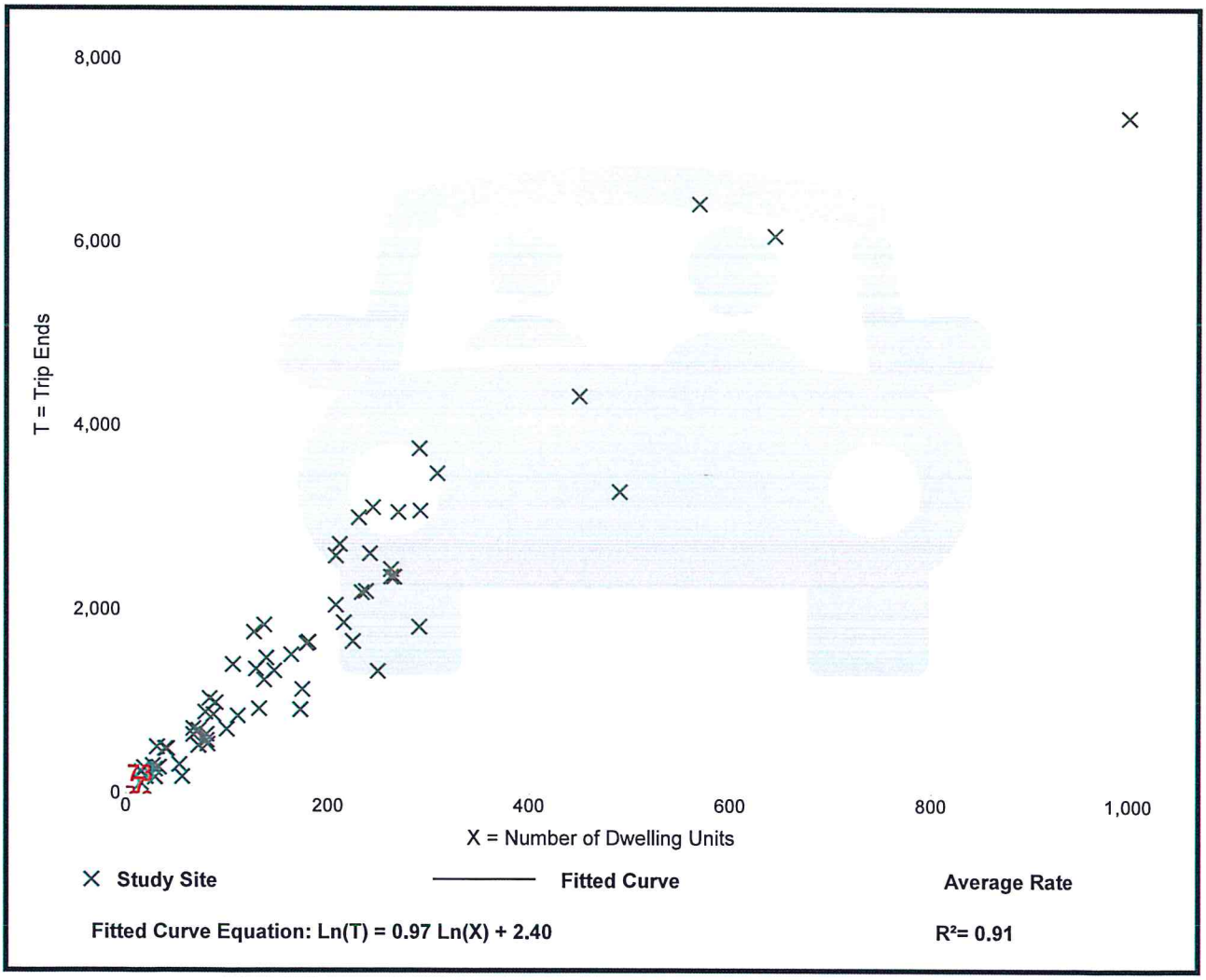
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Saturday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 63
Avg. Num. of Dwelling Units: 179
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.48	3.36 - 16.52	2.26

Data Plot and Equation



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Single-Family Detached Housing
(210)

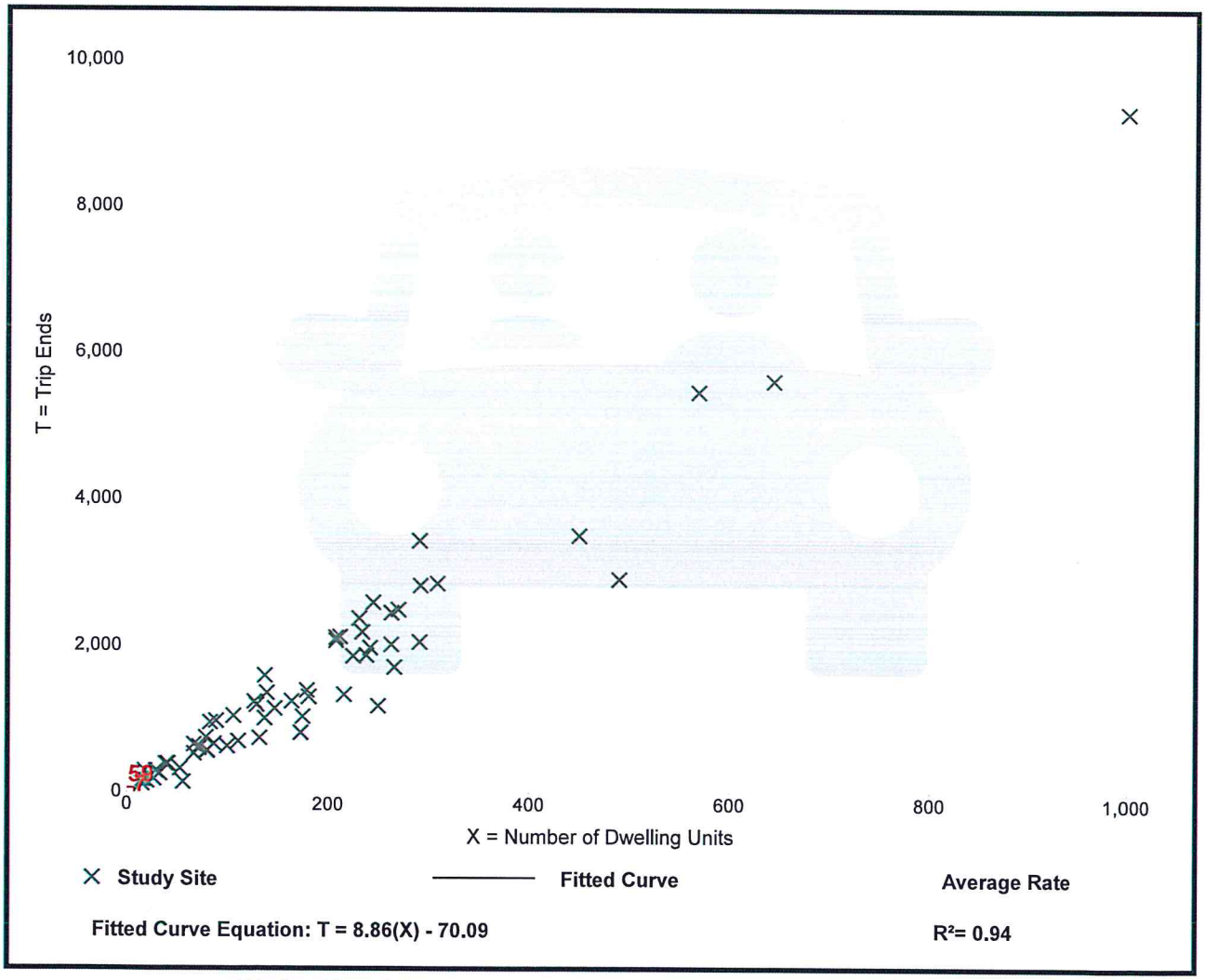
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Sunday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 60
Avg. Num. of Dwelling Units: 186
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
8.48	2.61 - 16.44	1.74

Data Plot and Equation



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