

# ***EAST-SOUTHEAST, LLC***

*J. Thaddeus Eldredge, P.L.S.*

*Surveying, Geomatics Engineering and Mapping*

*1038 Main Street ° Chatham, Massachusetts 02633*

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JONATHAN THADDEUS ELDREDGE, PLS CFM

Owner

## Education

Colby College:

- B.A. 1997, Major: Mathematics, Minor: Science and Technology Studies

Cape Cod Community College:

- Post Graduate work in GIS and Chemistry, Fall, 2000 to Fall, 2001.

Wentworth Institute of Technology:

- Professional Land Surveyor Certificate, 2003

## Affiliations

Massachusetts Association of Land Surveyors and Civil Engineers (MALSCE)

MALSCE Educational Trust, Chairman as of 2020

Association of State Floodplain Managers (ASFPM), member

## Past Affiliations

North Beach Advisory Committee, Chatham, Massachusetts, Secretary 2008-2009

Chatham Community Garden, Chatham, Massachusetts, member of Board of Directors

Cape Cod Chapter, MALSCE Past President

Rhode Island Society of Professional Land Surveyors (RISPLS), member

## Registrations

Professional Land Surveyor, Massachusetts Registration # 46471

Certified Floodplain Manager # US-15-08686

Soil Evaluator, Title 5, Massachusetts

## Experience

J. Thaddeus Eldredge is a professional land surveyor with over twenty- (20) years of experience in the practice of land surveying and engineering. He received a Bachelor of Arts Degree in Mathematics from Colby College in 1997. Mr. Eldredge was licensed to practice land surveying in the Commonwealth of Massachusetts on October 28, 2005. He was licensed as a Certified Floodplain Manager on October 2, 2015. He is the owner of East-SouthEast, LLC, a small surveying, geomatics engineering and mapping firm located in Chatham, MA.

Mr. Eldredge provides advice and his professional expertise to his clients in surveying and land development matters. He is responsible for the permitting of residential and commercial projects and has extensive experience with local bylaws, regulations and state statutes that affect the development of land. He is experienced with presenting projects before local boards and commissions. He has been a professional witness at several trials.

His clients include attorneys, individuals, and businesses in the private sector and municipalities in the public sector.

Mr. Eldredge is a member of several surveying and engineering societies. The most notable is his membership in the Massachusetts Association of Land Surveyors and Civil Engineers (MALSCE). He has presented several seminars and has written articles for the newsletter.

Mr. Eldredge has dedicated a substantial amount of time and effort to excel in the emerging technologies of LiDAR and drone photogrammetry. He is a Beta Tester for Carlson Software and has provided testing reports for the Point Cloud (LiDAR), Survey, Civil and GIS modules. He is a reseller of Blue Marble Geographics Global Mapper and provides training for the program.

## Seminars

***Cape Cod Chapter of MALSCE (Massachusetts Association of Land Surveyors and Civil Engineers), 2010: Local Vertical Datum Conversion.*** The National Geodetic Survey offers a comparison between the two datums with the disclaimer that the quality of the conversion is not sufficient for 1st, 2nd or 3rd order heights and is only appropriate for cartographic use. The methodology determined is a large scale analysis of 1st, 2nd and 3rd order benchmarks with published elevations in both datum's and the example explored is a county-wide analysis of the same. Presentations of this work have been made at the ESRI/ACSM Survey Summit, a MALSCE Cape Cod Chapter Meeting and the 2011 Annual MALSCE Convention.

***ESRI / ACSM Survey Summit, 2011: Local Vertical Datum Conversion.*** The National Geodetic Survey offers a comparison between the two datums with the disclaimer that the quality of the conversion is not sufficient for 1st, 2nd or 3rd order heights and is only appropriate for cartographic use. The methodology determined is a large scale analysis of 1st, 2nd and 3rd order benchmarks with published elevations in both datum's and the example explored is a county-wide analysis of the same. Presentations of this work have been made at the ESRI/ACSM Survey Summit, a MALSCE Cape Cod Chapter Meeting and the 2011 Annual MALSCE Convention.

***MALSCE (Massachusetts Association of Land Surveyors and Civil Engineers) Annual Convention, 2011: Local Vertical Datum Conversion.*** The National Geodetic Survey offers a comparison between the two datums with the disclaimer that the quality of the conversion is not sufficient for 1st, 2nd or 3rd order heights and is only appropriate for cartographic use. The methodology determined is a large scale analysis of 1st, 2nd and 3rd order benchmarks with published elevations in both datum's and the example explored is a county-wide analysis of the same. Presentations of this work have been made at the ESRI/ACSM Survey Summit, a MALSCE Cape Cod Chapter Meeting and the 2011 Annual MALSCE Convention.

***Boston Society of Civil Engineers, 2014: Flood Presentation.*** With the changes in the mapping techniques and the technologies available, it is important for the modern surveyors and engineers to keep current on the various products available. This seminar reviewed the on-line methods to obtain flood maps, GIS datalayers of floodplains, LiDAR elevation data to determine limits of floodplains and establishing vertical benchmarks with GPS utilizing National Geodetic Survey Technical Memorandums 58 and 59, Guidelines for Establishing GPS-Derived Ellipsoid Heights and Guidelines for Establishing GPS-Derived Orthometric Heights, respectively.

***RISPLS (Rhode Island Society of Professional Land Surveyors) Annual Convention, 2015:*** Introduction to LiDAR, FugroViewer, Quick Terrain Modeler and Carlson Point Cloud. The seminar is an introduction of the concepts and applications of aerial and terrestrial LiDAR for the modern surveyor.

***MALSCE (Massachusetts Association of Land Surveyors and Civil Engineers) Annual Convention, 2015:*** The seminar included a ride along with the mobile mapping equipment, the processing of the data and an overview of the extraction of survey grade CAD (computer aided drafting) data utilizing Carlson Point Cloud.

***VSLs (Vermont Society of Land Surveyors) Round Table 2016: LiDAR.*** The one-hour presentation introduces the concepts of aerial LiDAR with the practical application of performing initial reconnaissance of deflections in the surface of the ground for use in boundary surveying. Using the free FugroViewer software and the available aerial datasets, a surveyor can review an area to find walls, paths, ditches, streambeds and other deflections in the surface that may coincide with record boundary lines.

***AirShark LiDAR Introduction, 2017:*** This fifteen minute presentation provided a very brief overview of the various support programs available to perform the coordinate geometry needed for LiDAR data sets (point clouds) including testing, rotating, translating, scaling and colorizing.

***VSLs (Vermont Society of Land Surveyors) Seminar 2017: LiDAR.*** This three-hour presentation includes a hands on tutorial into using aerial LiDAR data from the ground up to modify LiDAR data sets (point clouds), create surface models, extract contours, extract deflections in the surface of the ground, extract planimetric information and prepare stunning videos using Global Mapper.

## Publications

***Dig Safely, Dig Safe, MALSCCE Surveyor, Summer, 2008: A review of the applicable laws and regulations regarding the Dig-Safe mandatory service.***

Historically, Dig-Safe would not perform services associated with land surveying and civil engineering projects but the Massachusetts General Laws and regulations promulgated thereto mandate that most land surveying and civil engineering require utility marking through the Dig-Safe program.

***Local Vertical Datum Conversion, NAVD vs. NGVD, ESRI/ACSM Survey Summit 2011: An analysis of the two major vertical datum's used in the United States.***

The National Geodetic Survey offers a comparison between the two datum's with the disclaimer that the quality of the conversion is not sufficient for 1st, 2nd or 3rd order heights and is only appropriate for cartographic use. The methodology determined is a large scale analysis of 1st, 2nd and 3rd order benchmarks with published elevations in both datum's and the example explored is a county-wide analysis of the same. Presentations of this work have been made at the ESRI/ACSM Survey Summit, a MALSCCE Cape Cod Chapter Meeting and the 2011 Annual MALSCCE Convention.

***Regulatory GIS Data, MALSCCE Surveyor, Summer, 2011***

An analysis and review of several maps and data sets that are made available with the disclaimer that the data is not appropriate for regulatory purposes but are being used by other entities for regulatory purposes.

***North, South, West Or 'Port: Villages Are a Source of Pride and Mystery, Cape Cod Chronicle, August 11, 2011 article by Alan Pollock on a map of the villages of Chatham by J. Thaddeus Eldredge.***

There are six villages located within the Town of Chatham, Massachusetts but the limits of these villages were never defined. Many have tried to define these areas with little success and great public opposition. Through the research of historical documents, a base map was created for public comment and created an interesting dialogue without any resolution of the question.