



TOWN OF CAPE ELIZABETH

Code Enforcement Office
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320 Ocean House Road
Cape Elizabeth, Maine 04107-0060

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MEMORANDUM

May 31, 2012

TO: Ordinance Committee
FROM: Bruce Smith

RE: Proposed Sketch Plan Criteria

A sketch plan should include the following:

- 1.) All of the items listed in Section 19-3-3(C)(1)
 - a.) location and dimensions of all buildings to be erected;
 - b.) the sewage disposal system location;
 - c.) driveways and turnarounds;
 - d.) Abutting lot and street lines.
- 2.) Location of all proposed structure/s, additions with dimensions to property lines;
- 3.) North arrow;
- 4.) Type and location of any monumentation found;
- 5.) Size of lot
- 6.) Method by which the sketch plan was created
 - a.) GPS, EDM, etc.
 - b.) Deed description
 - c.) Owner, abutters knowledge;
 - d.) Tax Map, Lot info;
 - e.) Mortgage Inspection Plan;
 - f.) Aerial photos;
 - g.) Code Enforcement building file;
 - h.) An abutter survey, sketch plan or Mortgage Inspection Plan
 - i.) Any combination of the above.

I have had correspondence from Jim Fisher of Northeast Civil Solutions. He has updated the 1999 DesLauriers letter (attached) and has determined the following costs:

Mortgage Inspection Plan - \$260.00
Existing Conditions/Sketch Plan - \$400 - \$1200 (average \$600.00)
Boundary Survey (average) \$3500.



Northeast Civil Solutions
INCORPORATED

100 E. N. Route 1
Scarborough
Maine 04107

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703 883 1000
800 882 2222

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703 883 1001

May 30, 2012

Bruce Smith
Codes Enforcement Office
320 Ocean House Road
Cape Elizabeth, ME 04107-0060

RE: Survey Plans for Zoning Boards of Appeal

Dear Bruce:

Pursuant to your request, the following explanations pertain to the different types of survey plans which the Zoning Board of Appeal members may wish to consider when presented with requests for variances.

The most common types of surveys that you might see include Mortgage Inspections, Boundary Surveys, Site Plans, ALTA/ACSM Surveys, and Existing Conditions or Sketch Plans from various sources that vary widely in detail and accuracy.

Mortgage Inspection Plans (MIP) are also commonly referred to as plot plans, mortgage surveys, or "Class D" surveys. These are not really surveys at all but are inspections conducted typically for mortgage lenders to determine whether or not structures on any given property meet the zoning criteria in place at the time of construction of the structure. These inspections seldom involve research beyond reviewing the current deed, and rely on whatever survey monumentation may be found in the general vicinity of the locus (the inspected property) in order to "place the house on the lot." These inspections serve a specific purpose, but are not necessarily accurate from the perspective of using the plans to grant variances.

Boundary Surveys, also called property surveys, full surveys or "Class A" surveys, are detailed projects that typically involve in-depth research, an on-the-ground traverse of the locus and vicinity by a survey crew, setting survey monuments at property corners, and a plan that meets all criteria to be recorded at the county Registry of Deeds.

Site Plans vary in the amount of information they portray: some are very detailed, others less so. They are commonly used to show proposed improvements on a

given lot or, conversely, lot improvements that have recently been constructed. These are also referred to as "As-built" plans. As these terms imply, they show what is visible on the locus and may also involve enough research to create a property boundary to various degrees of accuracy. Site plans are usually completed for commercial or industrial sites.

The ALTA/ACSM survey (American Land Title Association/American Congress on Surveying and Mapping) are generally the most comprehensive surveys with the most detailed plans. They typically show everything above and below ground, pay particular attention to any easements of record, and involve a great deal of effort both in research and field surveying. These surveys are completed almost exclusively on commercial and industrial properties.

Northeast Civil Solutions has created another type of "survey" that is essentially a Site Plan for residential properties (and which can also be applied to smaller commercial lots). We refer to this as an Existing Conditions or Sketch Plan, and it has been accepted by many municipalities for granting building permits and, in many instances, variances.

The typical Existing Conditions Plan is more detailed than a mortgage inspection but not as comprehensive as a Boundary Survey. It shows all the structures on the property, as well as driveways, principal sidewalks, patios, etc. It shows the size and location of any proposed addition, and reflects the building envelope according to current zoning regulations. If the proposed addition extends into a setback such that a variance would be required, a distance line is shown on the plans to indicate how far the addition would extend into the setback area and subsequently how much of a variance would be required.

All of this information is shown on the plan with respect to the property boundaries, which are determined to the best extent possible by utilizing existing monumentation on and around the area of the locus. An Existing Conditions or Sketch Plan is not the result of a Boundary Survey and does not guarantee that the property boundaries are exact (given that the monumentation we use is assumed to be correct and is not verified as a full Boundary Survey would do). These Existing Conditions Plans give a close approximation but not necessarily an exact depiction of the property in question. They are typically 11" X 17" size and are not for recording purposes.

Enclosed please find an example of a typical Existing Conditions Plan. If you have any questions, or if we can be of any assistance to you or the town, please contact us at any time. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Fisher", with a horizontal line extending to the right.

Jim Fisher
President

The following is a letter from Statewide Surveys:

Statewide surveys, inc
SOIL SCIENTISTS & LAND SURVEYORS
35 Eastman Road, Cape Elizabeth, ME 04107
Phone/Fax: (207) 767 4200
E-mail: statewidesurveys@maine.rr.com

May 31, 2012

Mr. Bruce Smith
Cape Elizabeth CEO
Ocean House Road
Cape Elizabeth, ME
04107

Bruce,

Thank you for allowing me to “weigh-in” on the Property Survey issue. The costs that I have presented would be for a typical house lot and larger projects would be more.

Today, surveys are commonly referred to as Mortgage Loan Inspections (MLI’s), Existing Conditions Surveys, Sketch Plan, Topographic Surveys and Boundary Surveys. These differing survey divisions have created confusion to the general public and perhaps amongst some surveyors as well. I will try to explain the need, cost and benefit of each survey in the following:

Mortgage Loan Inspections

\$300-\$400 (dependent upon project size, location etc)

MLI’s are grossly over used and have created a cloud over land surveying in my opinion. They are required by banks, lending institution and/or title company when property is transferred and a mortgage loan is in effect. MLI’s exist to ensure to a lender/title company that real property does exist at that location. Typically a “Sketch Plan” is developed from minimal field measurements and research. The problem lies with other entities using these Sketch Plans for other purposes other than the intended lending institution.

Pros Allows lenders to see that real property exists

Cons Misused, inaccurate boundary lines, approximate locations, limited research, can not be used to accurately determine setbacks.

Sketch Plans

\$\$ I do not know exactly what a “Sketch Plan” is to be honest.

We don't usually complete "Sketch Plans". I believe a "Sketch Plan" can be created by non surveyors. The definition for a "Sketch Plan" is unclear and its contents can vary widely per creator. There are no current Standards for "Sketch Plans" per the Maine Board of Registration for Land Surveyors. I have often heard the term, but I believe is more often used in the architectural field to represent preliminary designs for proposed projects.

Pros Cost Effective method for presenting a number of design scenarios for project with minimal measuring (if any).

Cons Great potential for inaccuracies as "Sketch Plans" can be created by non surveyors. Limited research (if any) may not identify easements if they exist. Can not be used to accurately determine setback distances.

Topographic Surveys

\$1500 (dependent upon project size, location etc)

Topographic Surveys are very useful for surface elevations for construction. These are accurate surveys depicting evident surface features as well as underground utilities. Topographic Surveys are typically merged with a Boundary Plan; however they can be without any boundary information depending on the location.

Boundary Surveys

\$1750 to \$2500+

A Boundary Survey is work completed by a Professional Land Surveyor that he/she has certified that the information is accurate. Boundary Surveys require detailed property research of the subject in addition to all abutting properties. Any easements would be identified in the research of the deed "chains". In addition, substantial efforts are made in the field to recover monuments in the vicinity and beyond if necessary. A substantial amount of time is also spent analyzing monument positioning in relation to the deed descriptions. Typically, a plan is created depicting the property limits and easement areas etc.

Pros Boundary Surveys are accurate document which gives property line information in addition to identifying property easements. A Boundary Survey is typically needed to accurately determine property line setbacks. Allows for accurate planning of the property and updating vague deed descriptions. The cost for Boundary Survey is typically less than 1/2 percent (<.05%) of the property value. For example a Boundary Survey of \$2500 for \$400K valued property is 0.006% of the value. provides an accurate document for professionals and Town Officials to use for decision making.

Cons Slightly more money for the owner.

Existing Conditions Plans

\$2000-\$3000 (dependent upon project size, location etc)

Existing Conditions Plans are created to show all surface features present at the time of the survey in relation to the property boundary including topography. These surveys are typically accomplished with conventional survey techniques and accurately prepared. Existing Conditions Plans typically show accurate boundary line information.

- Pros The best of scenarios. Accurate boundary, easements, topography, all surface features and underground utility locations on one plan.
Cons Higher cost for the "present" site conditions.

In Summary:

Boundary Surveys are necessary for setback determinations, Shoreland Zone calculations, lot area computations, etc. Shoreland Zoning is important to compute accurately for the sizing of building expansions and impervious areas for projects.

The public is best served by relying upon accurate surveys which is why licensure is required for Land Surveying. I believe Sketch Plans comprise current standards and dilute accuracy with risk to the general public. Plans that do not meet Standards can adversely affect the public by not complying with Town Ordinances. I believe Boundary Surveys would also be in the Town's best interest for project's involving new construction, building additions or work within the Shoreland Zone. Boundary Surveys ensure project accuracy and while protecting citizen's property interests for relatively low cost in comparison to other professionals that are typically involved who rely upon accurate surveys.

Respectfully submitted,

Dale A. Brewer

PLS/CSS

The following email is from Ellen Brewer of Owen Haskell, Land Surveyors:

Owen Haskell, Inc.
390 U.S. Route One Unit 10
Falmouth, Maine 04105

Mortgage Loan Inspection

This is not a boundary survey. This sketch does not purport to nor does it identify or delineate the limits of ownership on the face of the earth the subject parcel. The purpose of this sketch is to show the approximate relationship of the major structures to the subject parcel per deed description.

Cost: \$300

Building Permit Survey

A building permit survey is a cross between a mortgage loan inspection and a boundary survey used to determine compliance of a proposed new addition with Town/City setbacks. No pins are set or replaced and only enough surveying is done to determine setback compliance.

Typical cost: \$800-\$1000

Boundary Survey

A boundary survey provides the landowner with the land surveyor's *professional opinion* showing the location of the boundaries usually in the form of a map. A boundary survey involves research in the public record, finding and locating evidence found along the boundaries of the client's property and often boundaries of other lots located farther from the site, and reconciling field evidence found and record information, to determine the proper boundary location. The surveyor typically provides a paper copy of the plan to the client and marks the lines with paint or flagging and property corners with monuments (capped iron rods) where needed.

The cost of a boundary survey is dependent on a number of factors including the clarity of the deed description, existing monumentation on or near the site, and prior surveys in the area.

Cost: Typical house lot \$2,000-\$2,500

Existing Conditions Survey

Boundary survey that includes the location of improvements on the lot i.e.: house, driveway, decks and may or may not include topographic information.

In some cases the landowner has a boundary survey that can be tied into and the located improvements can be added to the existing boundary.

Typical cost: \$2,500-\$3,000