

INSPECTIONAL SERVICES REVIEW LITCHFIELD, NEW HAMPSHIRE

November 2018

ASSIGNMENT/BACKGROUND

The Town of Litchfield, New Hampshire, retained the services of Municipal Resources, Inc. (MRI) to conduct an evaluation, prepare a written assessment and report relative to the Town's current inspections and permitting processes, and to subsequently make recommendations that effect staffing, job duties, and assigned workload that is consistent with Industry-wide Best Practices. Also, this report considered the Town's most recent decision to integrate the duties of the Code Enforcement Officer and the Fire Prevention Officer, again from the perspective of Industry-wide Best Practices, to determine, what the impact of this decision has had on inspection/permitting services to date.

ACKNOWLEDGEMENTS

MRI would like to take this opportunity to thank the Litchfield Board of Selectman for their participation and support for this important undertaking. The Town Administrator and his staff are to be commended for their invaluable assistance with scheduling interviews, providing information, and clarifying the current practices, methods, and procedures used in Litchfield for inspections and permitting.

The Board of Selectmen:

Chairman: Brent Lemire

Vice Chairman: John Brunelle

Member(s):

Kevin Bourque

Kurt Schaefer

Steven Webber

The Town Administrative Team:

Troy Brown, Town Administrator

Frank Fraitzl, Fire Chief

Doug Nichol, Deputy Chief

Joan Mckibben, Planning Administrative Assistant

Donna Baril, Administrative Assistant

John Gilcreast, Part Time Contract Building Inspector

Kevin Lynch, Former Building Inspector

Richard Riley, Chair Zoning Board of Adjustment

Other Agencies:

Building Official, City of Nashua
Building Official, Town of Bedford
Building Official, Town of Milford

Documentation used in support of this Evaluation/Report:

Town of Litchfield Zoning Ordinance
Town of Litchfield Health Code
Town of Litchfield Town Reports- 2008/2017
Building Inspector Job Description
The International Building and Residential Code
NH Department of Safety Building Code Fact Sheet
Building Department Handbook- New Hampshire Building Officials Association
Building Code Effectiveness Grading Schedule-(BCEGS[®]) Questionnaire
Town of Bedford- Various Forms and Policies
Town of Milford- Various Forms
City of Nashua- Various Forms
Town of Amherst- Various Forms
Town of Peterborough- Various Forms

INTRODUCTION

This report is meant to compliment the October 2018 Department of Public Works Feasibility Study prepared by MRI, at the request of the Town and is not intended as a duplication of that study. It does, however, clarify and add to some of the prior findings of that study. This is in keeping with the expressed desire of the former study... i.e., “The Board of Selectmen and the Town Administrator initiated steps to address current and projected growth, land use planning, and expectations for the quality of town services to be delivered. In addition to fiscal and land-use management priorities, the Board of Selectmen have begun to consider how core town services are to be organized in the future.” Indeed, this report is specifically designed to identify and examine Best Practices, and whether the Town is meeting or exceeding these goals in such categories as documentation and document management, opportunities for electronic document management, training, workload, and staff qualifications. These subjects are of special concern to the Town Administrator and Fire Chief. Additional concerns are the quality of examination of documents and inspections, as well as the provision of good citizen service.

CODE ENFORCEMENT/BUILDING INSPECTION GENERALLY

1. Code enforcement (also known as building inspection in the Northeast, most places in the country separate them) has a long history in the United States and the State of New Hampshire. The general goal of code enforcement is public safety and the advancement of state and local goals related to sustainability and/or land use. In most New Hampshire communities the Code Officer works closely with the town or city planner, and the Code Officer usually is also the Health Officer and Zoning Officer. The Code Officer will have a close working relationship with the fire department due to construction code requirements (such as suppression systems or sprinkler systems) and the need for buildings and building operations to meet the Fire Prevention Code. The term Code Officer is used here generically, in Litchfield the term includes the Building Inspector and Code Enforcement Officer.
2. There are no requirements in New Hampshire that local government adopts or enforces the State Building Code. Municipalities may adopt amendments to the State Minimum Code, but not differing or newer editions. When a municipality has an enforcement mechanism (statutes use the term Building Inspector) there are requirements to be taken that ensure the implementation and enforcement of the code which include; review and acceptance of appropriate plans, issuance of building permits, inspection of the work authorized by the building permit(s) and issuance of appropriate use and occupancy certificates. In New Hampshire, licenses or certifications are required for Architects, Engineers, Electricians, Plumbers, Home Inspectors, Manufactured Home Installers, Well Installers, Heating Equipment Technicians, and Fuel Gas Fitters...but not Building Inspectors. The RSA prevents restriction or encumbrance of the local governing body's authority relative to the appointment, removal, or the duties of municipal employees and the organization of municipal departments. The actual party required to meet the codes is the contractor. The municipality cannot be held liable for any failure on the part of a contractor to comply with the provisions of the State Building Code.

MRI, under an agreement with the Town of Litchfield, has prepared this assessment of inspections and permit processes to provide recommendations on staffing needs, job duties, and work load with recommendations to meet standard industry practices. This assessment provides a summary of how these functions are currently delivered and recommendations on what the transition from the current methods should be, to meet local expectations and levels of services in addition to meeting modern best practices.

3. The approach used for the assessment included interviews with the Town Administrator, Deputy Fire Chief, Part Time Contract Building Inspector (the incumbent has served as a part-time Inspector for the Town since 2010), Administrative Assistant to the Planning Board and Administrative Assistant (this Assistant has duties for many departments in the town and she issues permits for the Inspector), and the former Building Inspector to gain perspective, understand current operations, concerns, and policy issues, and the Chair of the Zoning Board of Adjustment. These interviews are critical in understanding current operational constraints and opportunities. Samples of permit applications, inspection requests, calendars, plans, fee schedules, certificates of occupancy and the permit activity spread sheet was supplied by staff. The filing system(s) used for permits and planning generally were observed. Contact was made with neighboring communities, with samples of inspections, permits and policies provided by the City of Nashua (the Building Official is the Vice President of

the New Hampshire Building Officials Association), the Town of Bedford (the Building Official is a member of NHBOA and sits on the state Building Code Review Board), and the Town of Milford (the Building Official is an active member of NHBOA) to discuss permit operations in Hillsborough County. These were chosen for contact because of the Code Officials expertise and/or community size; Milford being close in population, and the number of persons per square mile. Bedford is important to compare, close in size, and its building inspection effort is housed within the Fire Department. The expectation by the citizens of any code enforcement effort changes over time and it represents a tension between the need for value, protection, and what is considered good public service. Best Practices must be considerate of the locale, including what is required in neighboring towns, as well as what is considered “Best Practices” in the state generally and nationally. The records and handouts supplied did not provide all the information needed for this assessment and there are no written policies and procedures. A survey instrument was created to send to staff that would allow confirmation of statements given and observations, as well as to answer questions raised during the review of the documents provided. An analysis was prepared of the last four (4) years of permits, three complete and one partial. The statutes, as well as International Codes, in addition to the New Hampshire Building Officials Association handbook were reviewed for Best Practices. Litchfield does not participate in the ISO-Building Code Effectiveness Grading System (BCEGS).

4. Data Comparison of Cities and Towns in Hillsborough County

Municipality	I----- Total Population -----I			I ----- 2017 -----I	
	U.S. Census		OSI	Group	Persons
	2000	2010	Estimate	Quarters	per
				Pop	Square Mile
Amherst	10,769	11,201	11,401	0	335.97
Antrim	2,449	2,637	2,625	22	73.58
Bedford	18,274	21,203	22,905	591	699.28
Bennington	1,401	1,476	1,458	0	128.41
Brookline	4,181	4,991	5,275	0	264.87
Deering	1,875	1,912	1,923	92	62.88
Francestown	1,480	1,562	1,569	0	52.57
Goffstown	16,929	17,651	17,838	2,159	480.25
Greenfield	1,657	1,749	1,809	172	68.3
Greenville	2,224	2,105	2,073	0	301.4
Hancock	1,739	1,654	1,656	19	55.24
Hillsborough	4,928	6,011	5,979	8	136.82
Hollis	7,015	7,684	7,807	3	245.73
Hudson	22,928	24,467	25,103	230	879.77
Litchfield	7,360	8,271	8,458	0	566.82
Lyndeborough	1,585	1,683	1,713	0	56.81
Manchester	107,006	109,565	110,301	2,283	3,337.58
Mason	1,147	1,382	1,398	0	58.31
Merrimack	25,119	25,494	25,529	103	782.52
Milford	13,535	15,115	15,366	228	604.59
Mont Vernon	2,034	2,409	2,501	2	148.62

Nashua	86,605	86,494	88,143	1,289	2,866.14
New Boston	4,138	5,321	5,674	40	132.02
New Ipswich	4,289	5,099	5,220	7	159.44
Pelham	10,914	12,897	13,500	0	513.65
Peterborough	5,883	6,284	6,554	321	172.4
Sharon	360	352	353	0	22.54
Temple	1,297	1,366	1,397	88	62.78
Weare	7,776	8,785	8,860	0	150.03
Wilton	3,743	3,677	3,689	9	144.05
Windsor	201	224	219	0	26.55
Hillsborough Co.	380,841	400,721	408,296	7,657	465.5

ORGANIZATION, OPERATIONS, SERVICES

The Litchfield Building Inspection effort is housed within the Litchfield Fire Department with the vacant (there is a temporary contract Inspector part-time) Building Inspector position reporting to the Deputy Fire Chief. The Fire Department location is remote from town hall; however, a new fire station is under construction adjacent to town hall. The former Building Inspector was employed since 2008 serving for ten years. He replaced an individual that served in that position for 47 years, until his death. At that time, the position included the duties of Building Inspector, Code Enforcement Officer, Road Agent and Health Inspector. Most recently the position included the roles of Code Enforcement Officer, Building Inspector and Health Inspector. During this period of approximately 57 years Litchfield grew from 450 residents to over 8,000. Since 2008 Litchfield grew to 8,271 residents in 2010. The Office of Strategic Initiatives estimates 8,458 residents in 2017. The department has historically operated with little oversight, little transparency and an outdated records management system. The Building Inspector wears multiple hats. The department does not have written policies (Standard Operating Procedures) and very little information is provided as handouts to the public.

The Town does not use any permit management software. Permit management software systems would allow town management to easily see the current status of every building permit and permit application, allow for the application and issuance of permits on-line, avoid missing or skipping critical steps in the plan reviews and inspection process, track fees owed and paid, allow the scheduling of inspections and eliminate paper inspection forms, reports, and spreadsheets, while permitting access by smart phone or tablet to the system in real time. These systems also track complaints (on-line requests and tracking), code enforcement and often work with Planning and Zoning efforts.

The current Part-Time Inspector stated that he is now taking work home, meaning he is taking files and plans home. There are no plan review checklists used (and no technology) that would establish what was reviewed, to ensure completeness, quality and consistency. There appears to be a difference in requirements for permit documents from the present inspector compared to what was stated as required by the former Building Inspector. The former Building Inspector stated there should be two sets of plans (when plans are required) and should include a set signed by the inspector (state code requires the sets to be stamped “approved). Three sets are required for commercial, one set going to the Fire

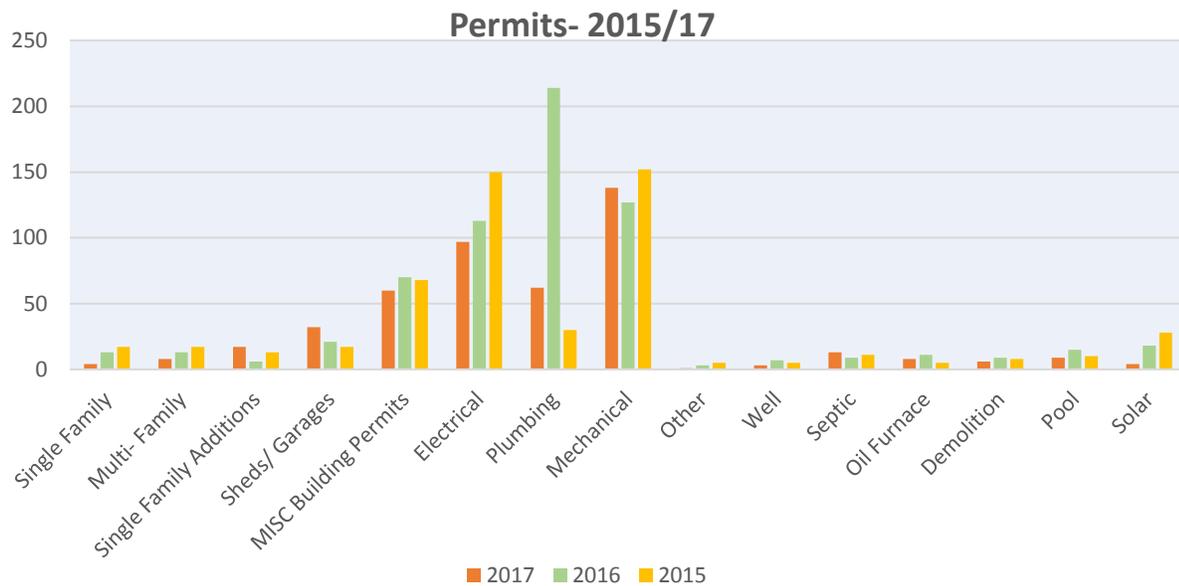
Department. The Inspector marks up the plans (red lines) when he feels that is needed, unless the plans are prepared by a design professional. The Inspector stated he takes the office files and plans with him in the field to conduct inspections. The former inspector stated he did that only for non-commercial projects. When the files are in the field there is the possibility that public records (the permit files) could be lost or damaged. Having record files in the field is uncommon, but not unique. Most departments would not take (or need) office files in the field as they would either be supplied by the contractor on-site or be available via a handheld device.

A review was made of the permits issued for the years 2015 through 2017 from the spreadsheet provided by the Administrative Assistant. It is not clear from any of the supplied information what sorts of construction is exempt from permitting. Some of the permit types are subject to interpretation as to what they are. The fee schedule does not match the permit types shown on the building permit application. The fee schedule has not been updated since 2011 according to the former Building Inspector and is out of sync with neighboring communities for value. There is no fine for inspection failures or for starting work without a permit. The permit application states that the permit, when issued, is good for six months and the “fee” schedule states that a permit is good for one year. Permits for new houses are good for one year, and additions three years per the former inspector.

Most of the permits issued are minor or sub-permits. There are very few building permits issued for complete structures such as houses, and even less for those that would commonly be considered “commercial, industrial or business”. Most of the building permits issued are permitted and inspected to the 2009 International Residential Code, and some “commercial, industrial or business” permits are permitted and inspected to the 2009 International Building Code. The sub and minor permits are electrical, plumbing and mechanical/gas permits (and these would meet the 2017 NFPA 70- NEC, the 2009 International Plumbing and Mechanical Code and NFPA 54 for gas piping). Oil Burner permits, and Gas appliance permits are usually issued by fire departments, but in Litchfield the Building Inspector issues the permits and inspects.

Sub and minor permits are issued upon request at the counter by the Administrative Assistant and some are issued at no charge when they are part of a building permit for a residential project. These permits could be issued via the Town Website. The Town Website has no information on it of use to a citizen for permitting, as there are no forms, no rules, no policies, and no access to the Town Codes (other than Planning). Driveways are reviewed and inspected by the Building Inspector for the Road Agent, with the Road Agent’s approval per the Zoning Code. Sub-permits, driveway permits, minor building permits generate a minimal number of inspections per permit.

Three Year Permit History



There is little use of technology by the Building Inspector; the inspector uses Google calendars for inspection requests and the Administrative Assistant schedules the inspector at hourly appointments upon the request of the permittee. There is no consideration when scheduling inspections of travel time or the inspection type. One inspection can be in extreme south of the town and it could be a very minor inspection, and the next inspection could be in the north end of town with a very time demanding inspection type. The part-time contract inspector works from 9 AM till 2 PM. At one inspection per hour, 5 inspections per day with no time set aside to meet customers, return calls or work with other departments, and no time to review plans.

The building inspection requests used by the inspector are two-part NCR forms. The forms are not very detailed and, after inspection the forms are placed in the vertical file by the inspector. As previously mentioned, no checklists are used to substantiate the details of what was inspected to ensure completeness, quality and consistency. With no software or database used for permit management, there is no way to track inspections (or permit applications), and no way to track permit activity generally. Projects that do not advance and projects that do not have permits are not tracked, memory is the mechanism for control. The previous inspector did state in the 2009 Town Report that he would be moving forward with permit applications on-line and adoption of the state code. This was had held off due to the state review of the code edition to be used statewide, with completion of update in 2010. The state has been on the 2009 Codes since 2010 and every attempt to update has failed.

The Building Inspector works closely with the Planning Department with shared files and space. The Building Inspector, as the Code Enforcement Officer is the person charged with enforcement of the Zoning Code, which generally occurs as part of the permit and inspection process (there is no separate zoning permit process) or based on a complaint (an official Planning Board form). The Zoning Code (and the Building Code) requires the Building Inspector to ensure development meets FEMA

regulations. No new construction is permitted in the floodplain, but modifications and additions are permitted utilizing the Special Exception process. The Zoning Code has a freeboard requirement of one foot above the FIRM 100-year Flood Hazard Zone elevation, or six (6) inches above the estimated seasonal high-water table (ESHWT), whichever is greater. It is not clear how the elevation of an addition to the required FEMA elevation is regulated. Substantial Improvement criteria is in the Zoning Code but not tracked. Substantial Improvement is any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement.

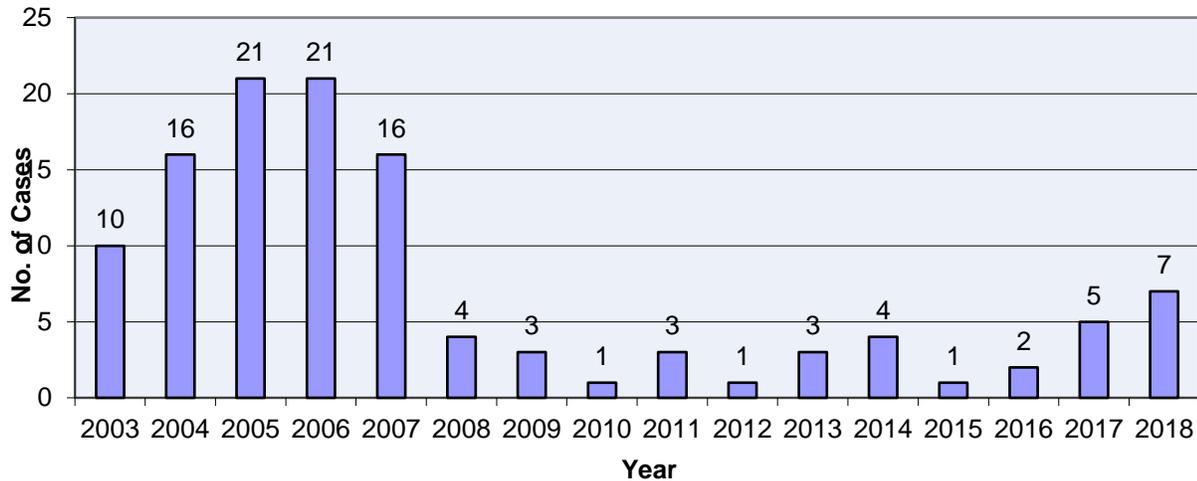
The Administrative Assistant to the Planning Board coordinates applications and projects with the Nashua Regional Planning Commission (NRPC). The NRPC is the contract planner to the town and it does technical review (plan review, master plan update, zoning/site plan revisions) as well as maintains the Planning Ordinances, including the Zoning Code. The Administrative Assistant to the Planning Board also communicates and coordinates with the Planning Board Chair, engineers, applicants and their lawyers, as well as creates the agendas, receives applications and all fees for planning. The Planning Board reviews the application, issues the permit for signs and manages demolition delay reviews and approvals.

When there is a permit requested for multi-family use, or subdivision of land or property, the Building Inspector refers the applicant to the Planning Board (via the Administrative Assistant). The former Building Inspector stated that the process was that the site plans, subdivisions and large building plans would be reviewed at the staff level for technical compliance, with a report being forwarded in conjunction with any reviews/reports submitted by the contract planner to the Planning Board.

Any order, requirement, decision or determination of the Code Enforcement Officer is appealable to the Zoning Board of Adjustment (ZBA). At this time the Zoning function is being exercised by the Town Administrator. The Clerk for the Zoning Board of Adjustment is the Chair of the ZBA who creates the agenda, sends out mailings (acts as the Clerk), and conducts the meetings without the assistance of the Building Inspector. The Building Inspector/Code Enforcement Officer's letters of denial would quote the section of the code and in addition attend the ZBA meeting to answer questions. Currently, that expertise is not available. In addition to variances, there are a significant number of the zoning districts that permit additional uses, applying the Special Exception process. The Special Exception process is also utilized for Flood Zone variances and for wetlands development which tend to be detailed, technical, and legalistic in conditions and qualification. The Chair of the ZBA detailed how the workload of the ZBA dropped to nearly zero with the employ of the previous Building Inspector and how it has increased since his retirement.

History Chart Courtesy of Mr. Richard Riley ZBA Chair

ZBA - CASE LOAD HISTORY



Health inspections are not separately recorded, however, when permitted and inspected they are added to the street file. The estimate is that there are 15 health inspections made a year by the inspector. Most are well and septic permits. The reason for the permit is to receive approval from the state, water tests, and confirm location. Additionally, schools and foster homes/daycare centers are inspected upon request. No restaurants are inspected by the Town, rather, they are inspected by the State. Assistance is given to the Litchfield Mosquito Control District as well. At the time of his retirement, the previous Building Inspector's job duties were expanded to allow the inspections to the fire code for new construction, Public Education, Fire Investigation, Safety and Department training activities and Fire Prevention. Prevention inspections are annual, to a place of assembly and schools, foster homes and daycares in addition to the Fire Department Inspections already occurring (gas line and oil burners). Additional responsibilities include "ensures all town buildings and facilities, are in compliance with applicable Town, State and Federal codes. Responsible for coordinating emergency and routine repair of buildings and facilities by preparing cost estimates, request for proposals and selecting contractors to perform work as approved by the Fire Chief in accordance with the town purchasing and other policies."

The Building Inspector (Zoning Official, Code Enforcement Officer, Health Officer) has been a very central position within the Town of Litchfield. The person who holds the position has a lot of authority, touches several different functions, however, there has been little oversight, and no cross training. In interviews, there has been expressed concern about the workload and the ability to carry out all the functions. Clearly there has been reliance on the Building Inspector to perform in multiple venues and circumstances.

RECOMMENDATIONS/BEST PRACTICES

General Operations and Building Department Best Practices

1. **Workload** - The workload question is complicated by the fact that data is difficult to quantify, and the expectations are difficult to determine. Based on the job description supplied, the Town is seeking a professional level employee with multiple certifications, duties and competencies (State and Federal, Fire Prevention, Zoning, Planning and Health) and in addition ensuring all town buildings and facilities, are in compliance with applicable Town, State and Federal codes. For a building inspector the “workload” is the process of permit issuance, inspections and administration of permitting to the adopted state building code. The expected workload for the Litchfield Building Inspector includes those function plus licensing checks, interface with the Planning Board and Zoning Board of Adjustment, the issuance of permits and inspections for the Road Agent, some Health inspections, Fire Investigation, some Fire Prevention inspections, and historically some facilities management duties. These core competencies and the additional expectations may prove to create recruitment barriers for the Town.

Based on interviews, no specific time is set aside for plan reviews and office administration. Inspections are set by appointment or can be requested on demand. The limiting factors are the appointment times, with no allowance for travel time, and the actual components of an inspection. This schedule, while very convenient for the public and contractors, limits the ability of the inspector to plan a day, be efficient in travel, and provide the time, effort and attention to detail, required to provide quality service.

Standard practice is partially what is professionally accepted, partially what is expected by town management and partially what the community expects. Based on the information provided, the present process does not meet in scope, intensity and detail standard practice when compared to the sampled equivalent jurisdictions in Hillsborough County. Most permits are minor and issued at the front desk. The length of time spent for most of these inspections was estimated to take from five to fifteen minutes. More detailed inspections such as a house framing were estimated at thirty minutes to one hour (for a beginner contractor) and more time if the construction is complicated (engineered framing). Of course, the commercial building permits require more time for plan reviews and inspections and the inspections would be more frequent. These time frames are likely inadequate in many cases pursuant to the adopted code. Additionally, more time should be devoted to the plan review process. Based on the estimated times expended for permits and inspections as they are presently conducted, the time available to the Building Inspector is adequate, but with the changes suggested this estimate will change. However, no opinion can be made of the ability to conduct the other duties expected by the Town. That will depend on the actual work expectation and the person retained.

Recommendations

- When a new Building Inspector is retained, working with the Town Administrator and Fire Chief, an expected level of service must be determined. That level of service should be translated into the required plan review and inspection policies to be developed. The mentoring available to the new inspector by the New Hampshire Building Officials Association as well as

samples of what is required by neighboring jurisdictions will be helpful guides. It is likely that this will result in more time that will be expended for these efforts.

- Use of third-party consultants (when appropriate).
- Depending on the ability of the new inspector, how the permits will be serviced should be reviewed and compared to what advantages can be attained using third-party reviews and inspections, and what role the inspector has and should have relative to the fire code, health, roads, zoning and planning.
- Static time frames should be developed to permit administration and opportunities for outreach, customer service and availability to work with the public.
- Time must be set aside for training and for office functions such as filing, phone calls and plan reviews.
- Inspections conducted within 24 hours of call should be set for AM or PM based on location, the only exception to this, would be time dependent inspections for the activation of building services.
- Target permit issuance; Upon application for sub-permits, 24 hours for minor building permits and one week for houses.
- Regularly scheduled inter-departmental meetings.
- Commitment to training.
- When the core responsibilities are met, review of all the job functions should occur.
- Adequate staffing to accommodate all town goals.

2. **Citizen Service and Transparency** - It is clear from interviews, that there is a need to maintain good citizen service and to modernize how business is conducted. On the one hand, the Inspector is available by appointment (or even without an appointment, by phone call after hours) but it is transparent that the system itself is not set up to maximize customer service and provide time to produce quality work. There is little to no information available to the public on-line to determine what the requirements are to construct or alter property. There are no fact-sheets, data, or statistics available to evaluate operations in a holistic manner. All permits, inspections, rules, and regulations should be available on the Town Website in addition to hard copies at the permit window, to include a current Zoning Code, and the pertinent Town Code sections related to building permitting. No software is used to issue or track inspections and permits.

Recommendations

- A single point of contact is always recommended, but in Litchfield the Building Inspector's role has become so connected and depended upon in so many disciplines. The single point of contact should be the contact all the way through a project, someone other than the Building Inspector needs involvement. There must be a strong effort made to cross train.
- Delegation of minor decisions to Administrative Assistant.
- Create user's guide to the permitting and inspections process.
- Create how to guides.
- Create permitting/ZBA/Planning Board process flow charts, routing sheets and FAQs.
- Checklists, uniform timelines, notifications and appeals rights provided on permit denials. All denials including failed inspections to have sections stated and brief explanation.
- Internal/external agency contact list /reviewing agency contact list.
- Clear submittal requirements.

- Maximization of technology- use of software for permit review, checklists, field use of smartphones.
 - Electronic permit application submittal systems and permit tracking systems.
 - Electronic inspection requests and tracking system with checklists.
 - Electronic complaint and code violation tracking.
3. **Policies and Procedures** - Any applicant for a building permit expects to be treated with respect and equality. There must be complete transparency in operations and requirements. The single most important aspect pertaining to the operation of a Building Department is consistency in operations, permitting and inspections. Operating policies and procedures that detail application requirements, application reviews (checklists), inspection requirements (checklists), inspector performance, and code application standards must be documented and available to the public.

Recommendations

The Litchfield Building Inspector should create a policy handbook available to the public and posted on the Town's Website, that would cover procedures such as:

- Required permit types and exceptions.
 - Appeal rights and processes.
 - Locations of information, regulations, and codes.
 - Required documentation for each type of application.
 - Samples and FAQs.
 - Application review policy.
 - Required inspections.
 - Inspection requirements.
 - Policy for making inspection requests.
 - Re-inspection polices.
 - Fee schedules.
4. **Personnel** - A building department functions the same way, with the same goals and objectives no matter if it is an individual department or part of another department. Nationally, these functions are often part of a larger management effort such as a Growth Management Department, Community Development Department, Public Works Department, Fire Department or they stand alone. A Building Inspector must have open communications with and be able to work well with the Planning Board, Zoning Board of Adjustment, Public Works and Fire Departments. If embedded into another department instead of co-located, the independence of the Building Inspector to make code decisions and interpretations, which is a key function of the position, must be recognized and preserved. It is estimated that in at least 75% of the municipalities in New Hampshire that have building code enforcement combine the Building Inspector with Zoning Compliance and the Town Health Officer. This is due in part, to the need to have specialized knowledge of zoning and health regulations and the impact they have on construction. However, Nashua, Milford and Bedford's Building Inspector have no direct role in Zoning. Bedford's Building Inspector reports to the Fire Chief, but the code effort is separate from Fire Prevention. What needs to be emphasized is that what the Building Inspector does, is defined by the needs of the community.

The Position of Building Inspector - There are no requirements in the New Hampshire Statutes for the position of Building Inspector. There are state licensing or certification requirements in Massachusetts, Connecticut, and New York (and many other states). In New Hampshire, communities establish minimum requirements for the position at entry level. This is usually a combination of experience and training/certification. With the permit work load in Litchfield the Building Inspector needs knowledge and experience in fire codes, building construction, plumbing, electrical, and mechanical/gas systems for residential light frame buildings, in addition to management skills, writing skills, Zoning and Planning experience and technology proficiency. Ideally, the person retained will have multiple certifications that show their proficiency by test, and subsequently be required to maintain these certifications, as well as participate with peers at training sessions in order to keep their knowledge up to date.

Qualifications - Any applicant for the position must demonstrate a combination of training and experience in construction in addition to base certifications. As the Town will be in competition regionally to find a qualified person, careful consideration should be made when proscribing these certifications. The gold standard would be a person certified as a Building Code Official (CBO), or a Master Code Professional (MCP). A search of the International Code Council website (active certifications) shows that there are eleven CBOs in the state and three MCPs. There are however, sixty three Residential Building Inspectors, thirty Residential Plumbing Inspectors, and twenty four Residential Mechanical Inspectors. There are thirty four Commercial Building Inspectors, nine Commercial Plumbing Inspectors and ten Commercial Mechanical Inspectors. Most of the permitted work in Litchfield is residential...minor, sub-permits and light wood frame. The pool of potential candidates is deeper for residential inspectors, and the Town would be more successful seeking a person with residential certifications. These certifications must be active, and a training program should be submitted to the Fire Chief for approval and funding by the person retained to maintain these certifications. A Building Inspector to maintain their understanding of codes should be active in local associations (meetings and membership) and that activity should be funded. The more experience and qualification required, as well as the additional duties proscribed in the present job description, the more difficult it will be to attract applicants in today's job market. Serious consideration should be given to providing training a less qualified person. The New Hampshire Building Officials Association has a mentoring service to assist with training, creating policies and developing operations.

Extract from the Present Job Description Minimum Qualifications (full description attached):

1. Must possess a valid driver's license at all times.
2. An associate degree from a recognized college or technical school in a related field of study.
3. Four years of progressively responsible related experience.
4. Proficient using current technology include but not limited to Google Applications, Microsoft Office Suite and Firehouse software.
5. Ability to read and interpret construction drawings and documents.
6. Any combination of education, training, and experience which provides the knowledge, skills and abilities required for the job.

Combination of the following credentials (*all certifications shall be achieved within 24 months of starting position*):

1. International Code Council Building Inspector*
2. International Plumbing Code Certification*
3. International Electrical Code Certification*
4. International Residential Code Certification*
5. Fire Inspector II*

* Assume these are meant to have the word Commercial and Inspector added, and that Fire Inspector II assumes achievement of Fire Inspector I

Recommendations:

Certifications substituted for credentials in the Job Description

Most of the permit activity is to the International Residential Code, which is different from the International Building Code. An applicant should have as many of the following relevant certificates as possible, but in no case should they have none. Two years is a generous time frame to obtain “minimum” certifications.

Active Certification from the International Code Council:

- Residential Building Inspector
- Residential Plans Examiner
- Residential Plumbing Inspector
- Residential Mechanical Inspector
- Residential Electrical Inspector

And,

- NFPA Certified Fire Inspector I (CFI-I)
- NFPA Certified Fire Inspector II (CFI-II)

Be required to participate in training to obtain within two years:

- ICC Certified Building Residential Plans Examiner

Should be encouraged to obtain within five years:

- Certified Building Official or
- Master Code Professional (this would require all the ICC Inspectors and Plans Examiners Certifications)

Suggested Qualifications per the New Hampshire Building Officials Association Handbook

MINIMUM QUALIFICATIONS

Appointees to the position of Building Code Official must possess the following minimum qualifications:

- Five (5) years' experience as an architect, engineer, building inspector, or building contractor, two (2) years of which shall have been in a supervisory capacity.
- Two (2) years of college or technical coursework in building technology, architecture, or engineering, or
- Any equivalent combination of education and experience which demonstrates possession of the required knowledge, skills, and abilities.
- A valid driver's license in the state of appointee's residence.
- Be certified by the International Code Council as a Certified Building Official or achieve certification within 1 year of employment.

Recommendations:

For the four years related experience required, the Litchfield Building Inspector must have the knowledge and proficiency to be able to judge, guide and advise, and experience in these competencies:

- The Building and Fire Codes.
- State and Federal Laws for Wetlands, Floodplain Management.
- Zoning laws and concepts- Including how the Zoning Board of Adjustment operates.
- Planning laws and concepts.
- Understanding of the rules and regulation for Wetlands and Flood Plain.
- The Health Code.
- Licensing Laws.
- State and Federal Laws that may include Accessibility (ADA, ANSI A 117 and Section 504 of the Rehabilitation Act of 1973).

The Position of Administrative Assistant - There is one other person who is a key part of the permit process; the Administrative Assistant. This person is the front-line contact for the department's customers, must field questions, work with files, determines the permit fee and issues permits. In addition, this position is the central point for town operations and works with Assessing, the Town Clerk and Town Administrator. Most of the time and work is for the Town Administrator and other departments. The Administrative Assistant has a huge role in customer service and the issuance of permits and scheduling of inspections. What was made plain in the interviews is that even with exposure the Administrative Assistant has very little knowledge or understanding of the permits and inspection processes beyond the administrative work that she does. The new Building Inspector must develop cross training for the Administrative Assistant in some technical aspects of the code and processes. These functions are separate from regular office functions and are highly supportive of the Building Inspector and the people who do this work, often termed Permit Technicians. There is a national association "Permit Tech Nation" (<https://www.permittechnation.org/>) and there is a local International Code Chapter of Permit Technicians. (<https://www.permittechnation.org/new-hampshire-building-official-support-staff.html>)

5. **Permits** - The State Building Codes defines what sorts of work requires permits and which code to use. For new buildings larger than three units including what most people consider “commercial” the ICC Building Code is used. For one and two family (and townhouses) the ICC Residential Code is used. For alterations and renovations, the Existing Building Code is used. The IRC has a chapter on Energy otherwise the Energy Code is used. Unless the code is amended the most common permits required by building department are:

- Building construction (new, remodel, addition, replacement)
- Electrical permits
- Plumbing permits
- Mechanical permits
- Septic permits
- Sign permits.
- Swimming pool permits

Other permits generally required by the Fire Service are permitted and inspected for the Litchfield Fire Department by the Building Inspector. Since it is quite common for the Building Inspector to be at the site for another reasons, it is more cost effective not to tie up community resources and send another individual out to the site for:

- Oil Burner permits
- Gas appliance permits (both heating and decorative)
- Gas piping permits
- LP tank permits
- Wood & pellet stove/insert permits

With the addition of annual school and day care (also required for Health) inspections the bulk of Fire Prevention Inspections conducted in the town are accommodated.

Exemptions: The State Building Code states exemptions from permitting but local amendments could make the requirements more stringent. The following are examples of the state exemptions:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 200 square feet.
2. Fences not over 6 feet high.
3. Retaining walls that are not over 4 feet in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge (driveway, upward slope, structure).
4. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons and the ratio of height to diameter does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, countertops, and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall which do not project more than 54 inches from the exterior wall and do not require additional support.
10. Decks not exceeding 200 square feet (18.58 m) in area, that are not more than 30 inches (762 mm) above grade at any point, are not attached to a Dwelling and do not serve the exit door required by Section R311.4.

There are exemptions for Electric, Plumbing and Gas. When reviewing permits issued there were permits issued that seemed to be exempt based on the State Building Code. It is not clear from the documents provided what construction is actually exempt.

Recommendations:

- The Litchfield Building Inspector should create as part of the policy handbook and modify Town Code(s) to make clear which permits are required, and which are exempt. In addition, all permit application forms should be adjusted to match these permit categories, and the fees aligned accordingly.
 - The requirements for permits for wells and septic should be examined considering state permitting for the same work.
6. **Application Documents** - Application documents must be complete, have narratives that define the work and have complete plans when required by the Building Inspector.

Recommendations:

Policies and procedures should be created to match the requirements of the State Building Code, state RSAs for design professionals and common best practices as follows:

- At least two sets of construction documents should be required for permits other than simple or single trade permits, these would include plans, specifications, details, truss drawings etc. After review one set of plans stamped “Approved” is returned to the applicant, one set retained in the office. The permit file set should never be taken out of the office, the applicant must have the “permit” set available in the field for inspections.
- Complete plans must show in detail that it will conform to the provisions of the code and relevant laws, ordinances, rules and regulations. Plans for projects covered by the International Residential Building Code (IRC) do not need to be created by a licensed design professional provided the designer follows the prescriptive requirements of the codes. The Building Inspector must never become “the designer of record” by red-lining or modifying the plans.
- Plans for projects covered by the International Building Code & the International Existing Building Code require a design professional and can be much more complex. It is recommended that when plans are submitted that are complex, they should be reviewed by a qualified third party.
- Plans must be reviewed for code compliance with the use of proper tools. This could be a paper checklist, a Word or Excel list, or contained in Permit Management Software. The codes are too complex to rely on memory and having records of the reviews ensures transparency and fairness.

Sample of Typical Single Family Plans Application Requirements

1. Two (2) sets of building plans, bound or stapled or in PDF format, if applicable (Minimum size 11” x 17”. Maximum size 30” x 42”). All plans must be to scale (Minimum scale is 1/4" per foot). The plans must be in compliance with the New Hampshire State Building Code and reflect any Planning Board approvals and stipulations. Each plan set must include the following when applicable:
 2. Architectural – Floor plans, interior elevations
 3. Structural – Size, spacing and maximum span of floor joists, wall studs, roof rafters, structural beams, headers, etc. must be depicted on plan

4. Plumbing – Location of plumbing fixtures and appliances
5. Foundation – Location of all footings to include size (width) and thickness (depth), foundation wall height, thickness and depth below grade.
6. Mechanical/HVAC – Location of furnace, hot water tank, A/C compressor etc.
7. Gas piping –A plan showing existing and proposed gas lines for tanks and gas fueled appliances Smoke/Carbon Monoxide – Location of smoke and carbon monoxide detectors
8. Energy/ Insulation - List of all R-Values for floors, walls, ceilings, crawl spaces, attics, ductwork, etc. and copy of Certification of Energy Code Compliance and Approved EC-1
9. Plot – Plot plan showing structure, utilities, septic, etc.
10. Septic Design
11. Manufacturers product and installation specifications for engineered beams (LVL, micro-lam, etc.)
12. Roof Trusses - manufacturer product and installation specifications including permanent bracing requirements and snow load/wind load design specifications.
13. Floor Trusses - Manufacturer product and installation specifications including live load/dead load design specifications.

7. **Fees** - One observation to note is that the permit types, fees charged, and the calculation methods all seem to be outdated and more complex than they may need to be.

Best Practices as recommend by the Government Finance Officers Association

State and local governments use charges and fees to help fund services. When certain services provided particularly benefit a specific group, then governments should consider charges and fees on the direct recipients of those that receive benefits from such services. However, many governments provide subsidies to various users for policy reasons, including the ability of residents or businesses to pay. Well-designed charges and fees not only reduce the need for additional revenue sources but promote service efficiency.

Setting user charges and fees can be difficult. Items to consider when developing charges and fees should include:

1. What are applicable laws and statutes regarding charges and fees?
2. Are formal policies in place articulating pricing factors or rationale for any subsidies?
3. What is the full cost of providing the service (both direct and indirect)?
4. Are rates periodically reviewed and updated?
5. Are long-term forecasts and plans consistent with the decision-making in the rate setting process?
6. How will the public be involved in the fee-setting process, and how will the public be informed of the result?

Recommendations:

The Town of Litchfield should consider a review of its permit fees structure to assess its equality with neighboring communities, its ease of use and the amount recovered by fees relative to the cost of services.

8. **Inspections** - The required inspections in the State Building Code are a short and somewhat deceptive list. They should be thought of as broad categories with an understanding that there can be many sub-elements to be examined. For example, at time of framing the entire structure is inspected, draft and fire stopping, usually some or all aspects for energy compliance as well as all sheathing. There are some components that are not being inspected, that may be in the public interest to include. An example is the inspections made as part of the “insulation” inspection. Even though there is a table of components to inspect in the code, a blower door test is the standard in most jurisdictions and often is a requirement for bank financing. To validate the depth of the inspections will require review and outreach both to the public as well as the contractors to be sure that the public need is met in addition to common practice and Best Practices. The Building Inspector, at the time of issuance of Certificate of Occupancy for a project, is stating he/she has found no violations of the code. Documentation is key to this process.

These are the most common inspection subject areas required:

- Footing
- Foundation
- Underground electrical and or plumbing
- Building framing
- Rough electrical
- Rough plumbing
- Mechanical
- Insulation
- Final/Certificate of Occupancy (includes final electric and plumbing)

Other common inspections:

- Gas piping
- Fire/draft stopping
- Low voltage wiring
- Septic basal

When possible, inspections should be combined to save time and travel. For example, rough frame, electric and plumbing.

Recommendations:

Policies and procedures should be created to match the requirements of the State Building Code, local conditions, expectations, and best practices:

- An evaluation of the elements of construction should be reviewed to match public expectations and to ensure codes compliance for essential items are made.
- No inspection should be made without the permit card and applicants set of construction documents on site.

- Inspection requests must be timed to allow travel, real time to inspect and serve the customer. This may mean that inspections be scheduled for the next day, AM or PM to allow adequate time. For example, at least one hour at the site must be allowed for a house framing inspection, present estimates are less than that and most inspections appear to take less than fifteen minutes.
- No inspection, and at least the more complicated ones, should be conducted without the tool of a checklist. This could be a paper checklist, a Word or Excel list, or contained in Permit Management Software. The codes are too complex to rely on memory and having those records ensures transparency and fairness.
- Deviations from the plans should not be permitted. If the work does not meet the plans, the inspection should be failed until both sets of plans are adjusted and reviewed. The Building Inspector must never become “the designer of record” by red-lining or modifying the plans.
- Complex projects could be inspected by a qualified third party. The Town could also require inspections and certifications by the design professional.
- The use of third parties and certifications should be examined for minor projects where there is a licensed contractor.

9. Inspection Forms & Field Correction Notices

For some inspections, the town uses a two part NCR form. This form shows the type of inspection, date and if the inspection passed. Even if the Town adopts a Permit Management System there must be some mechanism to inform the applicant of status and to create a record. Using software that could be done in real time using a phone or tablet. Ideally there would be a checklist as part of the form. When inspections show a discrepancy, a note is made on the applicants copy of the NCR from. Within the supplied fee schedule there is no charge for re-inspections or beginning work without a permit.

Recommendations:

Policies and procedures should state how inspections are documented and how inspections proceed when failed and what penalty there should be for beginning work without a permit.

- Forms will vary if the town uses a Permit Management System
- Forms should show or link to an inspection’s checklist
- These inspection forms should indicate the date of the inspection, the type of inspection, if the inspection passed or failed, if failed what is wrong, if permission is being granted for the project to continue at this time, and the signature of person performing the inspection.
- Depending upon department policies sometimes items needing correction are minor in nature and corrections may be verified at the next required inspection.
- Inspection that fail must be documented to state the reason and cite the code section. Many failures will require a reinspection. By policy and by the adopted fee schedule a reinspection fee should be assessed when needed to encourage complete and compliant work.

10. Planning and Zoning Related

This review was specific to the role of the Building Inspector and Building Permitting Best Practices. In Litchfield there is a direct role by the Building Inspector in Planning and Zoning. The Town of Litchfield has fairly complex and detailed regulations for Zoning, Planning and Growth Management. Due to topography, wetlands, and riverine flooding any new development can be complex, detailed and technically sophisticated. The interviews conducted emphasized the close relationship there is with Planning and Zoning and how the Zoning Board of Adjustment Chair is coping with the present workload and with no assistance.

Recommendations:

The Town of Litchfield should examine or have examined the work processes and steps required for Zoning approvals, applications to the Planning Board, and applications to the Zoning Board of Adjustment to determine if the processes can be improved, and if staffing is adequate to perform the expected function required by the Zoning Code and statutes. The roles and duties of the Building Inspector, Administrative Assistant, Fire Inspector, Administrative Assistant to the Planning Board as well as the contract Planner should be examined.

Sample: Software generated inspection with pre-loaded checklist.

INSPECTION FIELD SHEET

09/28/18
13:53:00

INSPECTION: 82371 RESIDENTIAL FRAMING PERMIT: [REDACTED]
 STATUS: [REDACTED]
 EXPIRE: [REDACTED]
 APPLICATION: [REDACTED]
 ASSIGNED TO: [REDACTED]

LOC: [REDACTED]

PROPERTY ID: 21-9-18

OWNER: [REDACTED]

CONTRACTOR: [REDACTED]

REQUEST BY: [REDACTED]

PROJ DESC: ADD 29' X 30' ATTACHED GARAGE W/LIVING SPACE ABOVE. REFACE
 WORK ORDER:

CHECKLIST:	P/F	AREA / COMMENT	COMPLY BY
RAFTER SIZE	---		
RAFTER SPACING	---		
COLLAR TIES	---		
RAFTER TIES	---		
CEILING JOIST SIZE	---		
BEARING CONTINUITY	---		
STAIR GEOMETRY	---		
STAIR HEADROOM	---		
HEADER SIZE	---		
WALL BRACING	---		
HAZARDOUS GLAZING	---		
FLOOR JOIST SIZE	---		

INSPECTOR: WAR RESULT: _____
 REQUESTED: 09/27/18 PRIORITY: _____
 SCHEDULED: 09/28/18 08 COMPLETED: _____
 UNPAID FEES: .00 Date Time

MILEAGE: _____ TIME: TRAVEL _____ ONSITE _____

COMMENTS: _____

CERTIFICATE OF OCCUPANCY CHECKLIST

EXTERIOR:

- HOUSE NUMBER RAILINGS
- GFI
- DRIVEWAY SIGN OFF - DPW**
- EXT. LIGHTS/DRS
- FUEL OIL TANK VENT
- WELL CASING BND/ELEVATION

GARAGE:

- FIRE RATING GFCI
- CURB STEPS/RAILS

KITCHEN:

- GFCI WATER TEMP
- APPROVED FOR DISPOSAL Y/N

BASEMENT:

- EMERGENCY SHUT OFF LOC.
- HEATING PLANT APPROVED
- FUTURE VENT PRESENT Y/N
- FUEL TANK ANTI-FLOAT
- METAL VENT CONNECTIONS
- POWER VENT LOCATION
- FINISHED Y/N
- FUTURE PLUMBING Y/N
- EJECTOR PUMP APPROVED Y/N
- CEILING INSULATION
- HEATING EQUIPMENT GAS/OIL
- SERIAL #'S RECORDED
- DUCT PRESSURE TEST

ATTIC:

- WALL CONTROLLED SWITCH
- INSULATED ATTIC ACCESS
- GASKETED ATTIC ACCESS
- INSULATION

ELECTRICAL:

- SERVICE PANEL LABELED
- ENERGY LABEL ON SVC PANEL
- UTILITY OUTLET
- GAS PIPE BND (CSST-LTNGPRT)
- AFCI BREAKERS
- SMOKE & CO DETECORS/BTRY
- WELL LOCKOUT
- STAIRWAY SWITCH LIT
- STAIRWAY SWITCH LOCATION
- RECEPTACLES FLUSH & TR
- WATER PIPE BOND
- BOND FOR PHONE & CABLE
- WIRES SECURED (basement)

GENERAL:

- EMERGENCY ESCAPE
- BLDG MATCHES PLANS
- ALL WORK COMPLETE**
- EXTERIOR GRADE
- FINAL CERT. AS-BUILT
- SEPTIC APPROVAL FOR OPER.
- FIREPLACE TRIM
- STAIR GEOMETRY (rise & run)
- STAIR WINDERS
- STAIR BALUSTER SPCNG
- FND DRAIN OUTFALL
- WETLANDS FLAGGED
- BOUNDARY MARKERS
- WATER TEST RESULTS
- BLOWER DOOR TEST
- ENGINEER SIGN OFF (when req.)
- IMPACT FEES PAID**
- BY CERTIFIED OR BANK CHECK**

Two Samples of Penalty Fees:

MISCELLANEOUS FEES:

Work commencing prior to permit issuance.....	Permit Fee x 200%
Re-inspection fees	\$50.00 per inspection
Copies	\$.50 per page/\$5.00 per large scale plan

FINES - NOTE: THESE FINES ARE SEPERATE FROM PENALTIES PERMITTED UNDER THE ZONING REGULATIONS

Starting work without a permit - (this includes excavation) Double the permit fee or a minimum of \$100

Failure to secure required inspections (offenses are cumulative)

- 1st offense.....w arning
- 2nd offense -.....\$25
- 3rd offense.....\$50
- all subsequent offenses.....\$100 each