

**Middleborough Board of Selectmen  
Meeting Minutes**

**July 12, 2010**

Chairwoman M. Brunelle opened meeting at 7:04 PM by inviting those in attendance to join in the Pledge of Allegiance.

In attendance were Selectmen M. Brunelle, A. Rullo, M. Duphily, S. McKinnon, S. Spataro, Town Manager C. Cristello and Board's secretary J. Shanley.

Chairwoman read aloud announcement from Representative Canessa announcing that he is holding a public meeting on Tuesday, July 20, 2010 from 6 - 8 PM at Aponoquet High School in Lakeville re flooding update.

Chairwoman read aloud Middleborough Summer Water Management program announcement.

State Representative Calter's mother passed away last evening. The Board extended its deepest sympathy to Representative Calter and his family. Calling hours will be available in the Selectmen's office.

Chairwoman read aloud Rubbish pickup schedule re holidays. Rubbish will be picked up on the day following a holiday.

Reminder given by Chairwoman that the Town Clerk's office is closed on Wednesdays to the public from now until further notice.

**HEARINGS, MEETINGS & LICENSES**

Town Clerk Eileen Gates addressed Board to explain the highlights of the new Open Meeting law requirements.

- Meetings must be posted at least 48 hours prior to meeting. Weekends no longer count as part of the 48 hour posting
- Agenda must be attached to meeting posting
- Minutes must either reference or include any documents used to come to any decisions
- Attorney General is now the Enforcement Officer, not the District Attorney
- Written complaints go to the Committee or Commission first. The guidelines spell out where to go next if not satisfied.
- Postings must be available 24/7 and are now posted in the window of the Town Clerk's office (the official posting) and are also on the Town's website.

Additional guidelines may still be issued, but the Town Clerk hasn't received anything further. Town Counsel only noted that the Town Clerk appears to have a good handle on the new guidelines. The Town Clerk is distributing information packets and will require signatures upon receipt of all committees and commissions, which she must keep on file. Selectman McKinnon asked Town Clerk to put all of the Open Meeting Law information on her website. As a recording secretary on a committee in Town, Brian Giovanoni

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asked who has to maintain reports/documents. The Town Clerk responded that you keep any documents that were part of any decision making process. Chairwoman Brunelle offered that all questions should be referred to the Town Clerk's office. Chairwoman thanked Town Clerk and Town Counsel for attending.

**NEW BUSINESS**

Town Manager explained that the draft letter before the Board, addressed to the Department of Interior, came about through discussions between him and Attorney Dennis Whittlesey. Selectman McKinnon asked when the letter would be submitted if signed this evening. Town Manager responded that it would be mailed tomorrow. Upon motion by Selectman Spataro and seconded by Selectman McKinnon, Board voted unanimously to sign and send letter.

**HEARINGS, MEETINGS & LICENSES**

Green Energy Committee - Status Update

Green Energy Committee Co-Chairman Jeff Stevens addressed Board and began by thanking the Board for giving the Committee the opportunity to present its update. Mr. Stevens introduced the remaining Committee members: Co-Chairman Juli Gould, Joe Ranahan, Charlie Chace, Steve Bonfiglioli, and as a regular attendee, Sandy Richter. Mr. Stevens added that Committee member Brian Kowalski will arrive shortly and that member James Cook would not be attending.

Mr. Stevens began by noting that the Town buildings are uncomfortable for the staff and the public visitors. The discomfort comes from either being too cold or too hot and is due to the heating and air conditioning units. The staff, more often than not, has no ability to control the heat/cold temperatures. He suggested that we need to establish very clear operating hours for heating and cooling the buildings. The Committee is asking that the systems be shut down when the building is not in use, up to and including the lights, computers, and photocopiers. There needs to be a support group that checks on these compliances. This is energy conservation. He believes that the staff will be more than willing to engage as they are the ones who are uncomfortable and who are losing jobs due to financial problems within the Town. The Committee suggests "energy audits" be done by engineers. The money currently being wasted would be better used on maintenance and an ability to properly run these units. Ignoring the problems will not make them go away, but rather make them worse. An appropriate individual should be hired and/or educated on how to run these systems. Staff should not be asked to run these pieces of equipment. The public schools (five buildings) have reduced their energy use/cost by one third. Committee member Brian Kowalski (CEM) Certified Energy Manager, (LEED) Leadership in Energy and Environmental Design (AP) Accredited Personnel presented report that he and his wife Juli Gould prepared called "Functional/Energy Assessment and Preliminary Strategic Energy Plan" J. Gould offered that there are substantial opportunities for cost savings with a small expenditure up front that would pay for itself within one year. In response to question by Selectman Spataro, Mr. Kowalski responded that the Committee doesn't have a total energy cost for the Town

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Hall, but is looking at 3 – 5% in energy savings, \$11,000/yr. for the Town Hall building alone. Selectman Rullo asked what the timeframe would be to implement these changes. Mr. Kowalski responded that the longest part will be working with a test and balance person or contractor to make sure they understand the work needed. The cost for these consultants is included in the figures within the report. Mr. Stevens informed the Board that there are too many people messing with the air conditioning control box for Town Hall. The box is locked and we could not shut down the air conditioning even for a short time on the hottest day of the summer last week when the staff was exceptionally cold. We need to get these systems up, repaired, sized, and controlled. Chairwoman Brunelle thanked the Committee and will turn over for review. Mr. Stevens acknowledged Brian Kowalski and Julie Gould for giving of their personal time and additionally noted that Mr. Kowalski has saved the Town money by offering his expertise. Selectman Spataro asked if there will be other similar reports for other Town buildings. Mr. Stevens responded that this is the intent. Julie Gould informed the Board that if the Town is committed, they are happy to do the work. Town Manager offered that he can speak for all department managers and noted that they would be happy to participate in this and he will take responsibility to make sure that we take care of the recommendations for this building a.s.a.p. J. Gould added that, in that case, the answer is yes.

Title V Repair Hearing – 20 Pine Grove Ave.

Health Officer addressed Board and noted that the engineer is not present. She suggested that if the Board had no immediate concerns, it may wish to make a pending decision. Chairwoman expressed concern that there isn't any confirmation that the abutter(s) had been notified and suggested that the Board postpone the matter until its next meeting. Selectman Spataro asked the Health Officer if there is anything that would cause concern by postponing. Health Officer responded that she is not sure that this is a critical system failure, but if it is, they will just have to pump the system. Chairwoman Brunelle continued matter until 7-26-10.

Action on I.T. Assessment

Chairwoman Brunelle announced that she was going to step away from the table and asked Selectman Rullo to run the meeting. Vice Chairman Rullo asked how the Board would like to proceed. Selectman McKinnon responded that the Board should establish a committee and move forward with this report as the Town needs an assessment on this. Selectman Rullo asked if anyone is opposed with this report. Selectman Spataro asked if the School Department is willing to work with us on this. Town Manager informed the Board that he spoke with Theresa Craig last week. Ms. Craig had said that the School staff that would be interested in serving would include herself, the Business Manager, School Department Chief Technical person named Mark, and maybe the interim School Superintendent or new Superintendent. Therefore the schools are interested. Selectman Rullo noted that there is presently an "Acting" Business Manager.

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Town Manager noted that Ms. Craig was certainly interested. He thinks they are all interested after having gone through the assessment. Selectwoman Duphily suggested that we won't be able to implement it right away, but having these folks work with Mr. Brunelle, will offer some ideas. Selectman Rullo suggested having a reasonable number of individuals from the public on the Committee. Selectman Spataro noted that, with the Town Manager being the Direct Manager of the I.T. department manager, he would like know if he endorses professional people from departments on the Town-side. Town Manager responded that it is important to include the main users from the Town-side. We are talking about making a commitment of replacing major hardware and software. We would have to have the people using the system involved in the discussions. This would include the Town Accountant, Treasurer, Assessor, and I.T. Manager. There are short-term things, operationally, to be looked at such as some of the software we already have, but don't use. Staff can get together to discuss. Selectman Spataro asked if we can establish a list of short term items that can be looked at by the staff and the Town Manager and separate them from the long term needs to be addressed by the committee. Town Manager answered that we could. Selectman Rullo envisions a steering committee of consisting of maybe five to seven people to include department heads. That committee could then establish subcommittees for this task or that task. Selectman McKinnon envisions this committee to look at bringing more efficiency, i.e. treasurer's office, less time with reconciliations. A lot of the input will come from those doing the jobs. Selectman Spataro noted that the Town has a lot of managers who are paid \$70k, \$80k, \$90k and questioned if the Town needs a committee or if the Board should just tell the Town Manager to clean these things up and have the steering committee deal with bigger policy Town direction activities of this report. Selectman Rullo suggested that fresh eyes will help the process, not hurt it. If we have individual(s) from the public with strong I.T. background, he thinks it will help. He agrees that the steering committee (those using the system) should provide input. Selectman Spataro disagreed indicating that the Town Manager ought to be able to get together with departments to determine what is needed. Selectman McKinnon noted that the committee will have to communicate with the department heads. Selectman Spataro recapped and asked the Town Manager to summarize again to what degree he sees a need for people from within the organization to serve on the committee. Town Manager cautioned against having just public appointments as he has seen committees fall apart. He recommended a mix. In response to further questions by Selectman Spataro, the Town Manager recommended the committee consist of no more than nine people, several from Town staff, a couple from school side and a couple from the general public. Marsha Brunelle addressed the Board from the podium and announced that she is married to the I.T. Director Roger Brunelle. She read aloud her disclosure and announced that she is speaking as a resident and her right to Freedom of Speech. She read aloud a list of prepared questions (attached). She informed the Board that these were her questions she had by going through the report and offered them for the Board's consideration. Robert Dunphy addressed the Board and offered that his concern is that we are not going to do this well (disaster recovery plan). It must be tested first.

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Mark Belanger addressed Board to note that he liked the original Finance Committee's proposal which was to bring in an outside company to look at the I.T. infrastructure as a whole (all departments). He thinks this report did point out that it was going to have limited effectiveness because it was only looking at the School Department and General Government and we are leaving out an awful lot. He posed question as to would this proposed committee revisit the Town's infrastructure in its totality. Selectman Rullo noted that when we develop a long-term strategy re I.T., we should be looking at police and fire. The MG&E is not interested at this time. M. Belanger offered that he thinks it's the Board's job and the public's job to tell the MG&E what the Town requires from them. Town Manager pointed out to the public that the Fire Department is already included. The Police Department is separate due to confidentiality reasons. Chairwoman Brunelle followed up on comments. The I.T. department does work with those departments on equipment. The MG&E doesn't get involved because of the guidelines re the Terrorism Act. Finance Committee member Lalani Delprete. She thinks a committee is a good idea, but must go hand-in-hand with Capital Planning. Selectman Spataro asked if it is the MG&E management that's not interested. Selectman Rullo responded that it is. Selectman Spataro suggested that the committee, once formed, could go to a Commissioner's meeting and make a case to the Advisory Board for consideration. The Town Manager explained that we do work with them on their financials. They are part of our system. We work with our G&E to a greater extent than most.

Upon motion by Selectman McKinnon and seconded by Selectman Spataro, Board voted unanimously to establish a committee consisting of no more than 9 people with a split as mentioned earlier, some townspeople, some members of management, some members of the Board of Selectmen, some members of the Finance Committee (unofficially).

Upon motion by Selectman McKinnon and seconded by Selectman Spataro, Board voted unanimously to amend previous motion and to include some members of the School Department, visiting members from the Finance Committee, a member of the Board of Selectmen, General Government and Townspeople and for the Town Manager to determine the number of people from each group.

Upon motion by Selectman Spataro and seconded by Selectman McKinnon, Board voted unanimously to ask Middleborough Gazette reporter Jane Lopes to do write up in newspaper soliciting resumes of those interested in serving on the committee and advising that all resumes be sent to the Board's Secretary.

Robert's Rules of Order

Selectman McKinnon displayed book re Robert's Rules of Order and the abbreviated version (another book) for the audience. He suggested that by adopting Robert's Rules, it puts order and structure into the meeting. He noted that the Board follows these now, but has never adopted it. One good reason to adopt would be that, under Robert's Rules, a motion can only come up once per meeting if there is a two-to-two vote when one member either recuses themselves or is absent. At present, the item can come up over and over. Selectman Rullo noted that the importance is to protect the minority to speak

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and equal time to speak and protect those who are absent and have a right to speak. He thinks it's important to protect the process. Selectman Spataro offered that the Board had a great discussion a few minutes ago when a member from the audience enlightened the Board that a member of the Finance Committee can't be appointed to serve on the I.T. Assessment Committee. He would be happy with not being exact, if in the process, the Board gains helpful information.

Selectwoman Dumphily offered that she thinks the way the Board is running its meetings now is fine. She suggested that some people may not be able to speak unless they are part of a hearing, according to what she read in Robert's Rules. She went on-line and found that there are many versions of Robert's Rules with so much structure it would disallow many things. She thinks it's a foolish thing to think about, noting that "Other" would no longer be allowed on the agenda. She doesn't know any other Selectmen who have adopted Robert's Rules. She agrees that the Board needs rules that it follows relative to hearings, but not to adopt Robert's Rules. Selectman McKinnon informed Board that he has talked with Town Counsel and is working on gathering information regarding public hearing processes. Selectman McKinnon indicated that the Town's of Wayland, Wesley, Framingham, Provincetown, and Duxbury have adopted Robert's Rules of Order as has our own School Committee. Selectman Rullo explained that he is in favor of adopting. While the current Chairwoman is accommodating and fair, not all future Chairmen may be the same.

Selectwoman Dumphily offered that if the Board were to adopt now, it wouldn't matter because it would have to adopt each time the Board reorganized with new Board members. Selectman Rullo agreed, however, added that he thinks that if it were established now, it will carry forward. Chairwoman Brunelle added that she has attended school meetings and found that anyone from the audience who wanted to speak could not do so without previous approval. She agreed that some hearings, such as dog and WRPD hearings, have certain criteria to be followed. The Board has never adopted Robert's Rules as it has always wanted to maintain flexibility. The School Committee and the MG&E meetings are more formally structured. Selectman Rullo reiterated that the Board can suspend the rules. It has the right. He thinks it is important to have a set of rules. Selectman Spataro offered that he thinks having steps for holding hearings would be beneficial and helpful. Chairwoman Brunelle noted that the Board has a book of policies that needs to be reviewed and a lot of this may be in there and suggested that we don't have to reinvent the wheel. Robert Dunphy offered that it would be wonderful if the rules were published on the website or available to the public. Town Manager offered that he, Selectman McKinnon and Town Counsel are presently working on the manner in which the Board is to conduct dog hearings, WRPD hearings, etc. Richard Young addressed Board to say that he had been on the School Committee and that there is no codified set of rules right now. He thinks it is important that the Board establish a set of rules for how it's going to run its meetings. He recommended Board adopt Robert's Rules until it determines its own set of rules. Ellie D'Angelis addressed Board and suggested that Robert's Rules seem very defined. She questioned that if the Board adopts a set of rules that will restrict it, what happens if something isn't followed as is presented

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in the rule book. Selectman McKinnon responded that the reason the smaller Robert's Rule book is smaller than the larger one is because it doesn't contain all of the nuances contained in the larger book. Generally, you're not going to run into some of the more difficult parliamentary procedures that are listed in the larger version. Most people don't even know them. Former Town Moderator, Mr. Thomas, addressed Board and explained that it is at the discretion of the Town Moderator under what rules he wishes to run Town Meeting. He thinks the Board should adopt its own set of rules. R. Young addressed the Board and offered that it is by establishing a set of rules that provides for the principles for the way in which a meeting is run. It establishes a reason for the Chairman to rule in the way it rules and it establishes a way for those who disagree with the Chairman to get a majority of the Board to change that opinion or add things. Motion made by Selectman McKinnon and seconded by Selectman Rullo, to adopt Robert's Rules of Order as the operating rules for the Middleborough Board of Selectmen.

Two in favor. M. Brunelle, M. Duphily, and S. Spataro opposed. Motion did not carry.

WRPD Regulations Public Hearing

Chairwoman read aloud public hearing notice (attached), declaring the hearing opened at 9:36 PM. Motion made by Selectwoman Duphily and seconded by Selectman Rullo to adopt as written. Town Manager clarified that the Board members were getting ahead of themselves. Town Manager summarized the proposed regulations. What has been missing is the lack of some professional assistance and comments. We've tried to rely on staff. These regulations were drafted fifteen years ago by Town Counsel, but never adopted. He has one change (#15), which Town Manager read aloud. This allows you to assess reasonable fees to the applicant for the consultant's review of the application. After brief question and answer period amongst the Board and the Town Manager, Chairwoman Brunelle asked to hear any questions from the public. Hearing none, Chairwoman declared the hearing closed.

Upon motion by Selectman Rullo and seconded by Selectwoman Duphily, Board voted unanimously to adopt the regulations with changes as noted under Section 4 (attached).

**TOWN MANAGER'S REPORT**

Todd Goldman has accepted the position as Wastewater Superintendent, effective 7/1/10, had been Chief Operator under Mr. Ciaglo for awhile, and has worked in the department for a number of years. He will surely do a very good job.

Town Manager explained that we had unusual circumstances at the Wastewater facility and brought in CDM as consultants to bring us back into compliance.

Upon motion by Selectman Spataro and seconded by Selectman Rullo, Board voted 4-0 to approve the CDM contract and authorized the Town Manager to sign.

Selectman McKinnon was not present for this vote.

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Upon motion by Selectwoman Duphily and seconded by Selectman Rullo, Board voted 4-0 to authorize filling vacant positions in the DPW department. Selectman McKinnon was not present for this vote.

Upon motion by Selectman Spataro and seconded by Selectman Rullo, Board voted 4-0 to authorize transfers totaling \$8,150.00 to fund the Law Department Budget as outside counsel budget is running short. Selectman McKinnon was not present for this vote.

Town Manager noted letter that he had provided to the Board from Health Officer re K.O.A. campground. The matters discussed at previous meetings are being addressed.

Town Manager was happy to report that the Town received its CDBG grant from the DHCD in the amount of Nine hundred eleven thousand dollars for both Middleborough and Lakeville for both housing rehabilitation and emergency assistance services.

Town Manager reported that we are continuing to follow Auburn Street matter re Conservation.

**OTHER**

Chairwoman Brunelle reported that she, Selectman Rullo, the Town Manager, Town Planner, OECD Director, representatives from SRPEDD, Representative Barney Frank and two of his aides had a tour in various areas in Middleborough and projects under discussion for the Town. The biggest one is Rte 44 and the Rotary. Representative Frank is willing to work with us to try and get funding to assist with the engineering plans. They took him over to the South Point development, they talked about the Ring Road, and brought him through both of the industrial parks on Rte. 18. He was very receptive. Selectman Rullo thanked the Town Manager and Planning Director for continuing with this project. Selectwoman Duphily asked again that the State Representatives come visit Rte. 44 and the Rotary area between 3 -5 PM sometime.

Chairwoman Brunelle asked Selectwoman Duphily to contact all members on the Capital Planning Committee to reconstitute the Committee. Pat Rogers had been Chairman. She also asked the Town Manager to ask the department heads to get their capital planning needs together. We need to know what the needs are, with or without money available, especially those that are critical. She is not sure who the Finance Committee member is. She asked Selectwoman Duphily to send letter to Finance Committee and ask.

Michael Solimini requested information regarding any communication from Sysco. Town Manager responded that Sysco expects to have something to us this week clarifying exactly what they are looking for.

Allin Frawley commended Board for moving forward with Rte. 44 and Rotary.

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He understands that there will be 900 employees at Sysco and expressed concern that the additional traffic will affect the Rotary. Town Manager responded that from what he understands, there won't be 900 employees at this location.

In regard to Letter from the Board to the Department of the Interior, Allin Frawley asked for clarification as to whether Middleborough is opposed to Land into Trust for Non-gaming purposes. Chairwoman Brunelle explained that we are opposed to them amending the application to add Fall River to the application that they have on file for Middleborough.

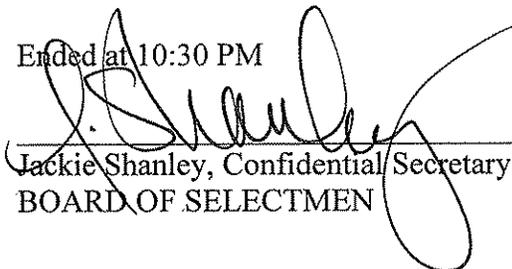
Allin Frawley addressed the Board noting that he believes the Town was to get a check from the Proposed Resort Casino investors at the beginning of July and asked if it had been received yet. Town Manager responded that it had not been. Mr. Frawley asked if that is a violation of the agreement. Chairwoman Brunelle responded with obviously.

Mr. Frawley asked when the Board is going to invoke the Dispute Resolution regarding the Wampanoag Tribe and the proposed Resort Casino. Chairwoman Brunelle responded that the Board had no comment.

Brian Giovanoni expressed the following concern relative to Sysco coming to Town by asking what is going to happen to downtown Middleborough with trucks traveling Rte. 105. He suggested that the Town should limit the weight of the trucks. Chairwoman Brunelle responded that we can look into, but she doesn't believe the Town has the authority as Rte. 105 is a state highway.

Richard Young addressed Board to ask how one would get their questions/comments on the agenda under "Other". Chairwoman Brunelle advised that items be given to the Board's secretary by noon on Mondays, and if doesn't make that meeting, the individual will be notified that it will be placed on another agenda.

Upon motion by Selectwoman Duphily and seconded by Selectman McKinnon, Board voted by Roll Call to go into Executive Session at 10:00 PM to discuss strategy relative to Collective Bargaining and Pending Litigation and not to return into Open Session. Roll Call: S. McKinnon, Yes; S. Spataro, Yes; M. Duphily, Yes; A. Rullo, Yes; M. Brunelle, Yes.

Ended at 10:30 PM  
  
Jackie Shanley, Confidential Secretary  
BOARD OF SELECTMEN

## INFORMATION TECHNOLOGY ASSESSMENT IMPLEMENTATION

Nothing suggested by the report doesn't involve an expenditure of Town finances. What is the total financial commitment of the technology report?

Unless a financial commitment is made by the TOWN, none of this can be accomplished. If this is not done, we cannot go forward with these recommendations. In order to implement suggested recommendations, financial and technology plans need to be developed and commitments need to be made by both the General Government and School Department.

What is to be gained by combining School and General Government IT departments? Both financial and efficiencies need to be detailed and weighed against each other to determine if it is cost effective. The report did not address these issues or if there were any true savings.

How is the current structure not working?

Some items suggested in the report have already been discussed previously. However, they have not been implemented due to various reasons.

Will both short-term and long term plans be addressed? Immediate needs were addressed in the request for stimulus funds which were not approved.

What departments are involved in the commitment? Police, Fire, Library, School and General Government?

What outside resources, if any, are required to assist in developing a plan? What is the cost?

Who would be engaged to assist, if needed, in developing the plan?

What would be a committee make up? Why can't the Town Manager work with departments involved to develop proposed implementation and costs?

What is the time frame for the review schedule? (1 year – 2 years)

What other towns have completed a technology assessment? How did they go about implementation?

What other towns have a CIO? How is it working?

If committee created, what role will the present departments have in developing this plan? What involvement will the Town Manager have? Who will make the appointments?

What role does Town Meeting have in developing this plan? If funding rejected by Town Meeting, how do we resolve?

Will this plan affect any projects currently pending or being discussed under the Capital Planning committee recommendations?

Will this plan affect any project (s) currently being implemented by each department?

Has School Committee voted on this? Are they supportive of a combined Technology Department?

Will new job description (s) need to be developed and will negotiations be required to establish grade levels and salaries

How many people would be assigned from School Dept? Do they have other assigned responsibilities? If so, how will those be re-assigned?

Have any individuals referred to in report been laid off?

How will a budget be developed? One budget under General Government or remain separate?

If one budget, will School employees be included in GMEG or remain under school union contract(s)

If they remain separate, how will salaries and benefits be negotiated in order to maintain consistency between General Government and School?

How will responsibilities be assigned? How will priorities be established?

How will indirect costs be affected for School, Water, Wastewater & G&E?

Will oversight include only school administration or will computer labs and curriculum be included in any proposed upgrades?

If budgets remain separate and further reductions are made, who will decide which positions, if any, are eliminated?

Where will employees be located? What would be the cost of any relocation?

Is any school grant money used to pay all or a portion of any of these positions or equipment? If so, will those funds be available if combined with General Government?

Can Town take advantage of Educational pricing for technology purchasing.

What is the cost of training on new programs, if they should be changed.

(Town Seal)

The Board of Selectmen will hold a public hearing in the Selectmen's Meeting Room at the Town Hall, 10 Nickerson Avenue, Middleborough, MA on Monday July 12, 2010 at 8:50 PM, for the purpose of adopting rules and regulations pertaining to the hiring of consultants to assist the Board in carrying out its responsibilities under the Water Resource Protection Districts By-Law. Anyone wishing to be heard on this matter should appear at the time and place designated. Copies of the proposed regulations may be obtained by calling the Selectmen's office at 508 946-2405.

Marsha L. Brunelle  
Alfred P. Rullo, Jr.  
Muriel C. Duphily  
Stephen J. McKinnon  
Steven P. Spataro  
BOARD OF SELECTMEN

Please bill the Town of Middleborough, Board of Selectmen's office advertiser # 300074

June 22, 2010

Charles J. Cristello, Town Manager  
(via email: [ccristello@middleborough.com](mailto:ccristello@middleborough.com))

RE: WRPD rules regarding fees for outside consultants (c. 44, §53G)

Dear Charlie:

I reviewed the proposed rule which I drafted in 1994 and which you gave to me on 6/21/10. I think it is suitable for the Board to adopt regarding outside consultants for WRPD special permit matters.

I suggest one (1) change in the rule - 1. Section 4, line 13: add "at the completion of the project "after "applicable,".

Very truly yours,

Daniel F. Murray  
Town Counsel

DFM/s  
10-103

**FILE**

**DRAFT**

JUL 12

BOARD OF SELECTMEN  
REGULATION - OUTSIDE CONSULTANTS - SPECIAL ACCOUNT

Section 1. The Board of Selectmen (hereafter the Board) may employ outside consultants to assist the Board in carrying out its responsibilities under Section XII of the Zoning By-Law (Water Resource Protection Districts By-law-WRPD). The Board may require an applicant for a special permit under said Section XII to pay to the town reasonable fees for the employment by the Board of outside consultants to assist the Board with respect to its responsibilities under law and arising out of or in connection with an application for a special permit or the grant of a special permit.

Section 2. Upon receipt by the Board of an application for special permit, the Board may send a bill to the applicant for the estimated cost of reasonable fees for employment by the Board of outside consultants. The Board may send a bill to the applicant for the cost of reasonable fees for employment by the Board of outside consultants if the amount in a bill for the estimated cost is not sufficient to pay for employment of outside consultants or if a bill for estimated costs has not been sent by the Board. The applicant shall pay all bills sent by the Board within thirty days of the date of the bill.

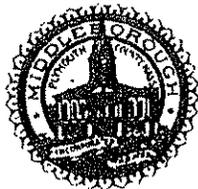
Section 3.

The Board shall notify the applicant in writing of the Board's selection of each consultant. The applicant shall have an administrative appeal from the selection of any consultant. The appeal shall be to the Board. The grounds for such appeal shall be limited to claims that a consultant has a conflict of interest or does not possess the minimum required qualifications. The minimum qualifications shall consist either of an educational degree in or related to the field at issue or three or more years of practice in the field at issue or a related field. The required time limits for action upon an application by the Board shall be extended by the duration of an administrative appeal. In the event that no decision is made by the Board within one month following the filing of an appeal, the selection made by the Board shall stand. All appeals shall be in writing and filed with the Town Clerk not later than fourteen days after the date of the notice to the applicant of the selection of a consultant.

Section 4.

The Treasurer shall establish a separate special account into which all fees received from applicants with respect to consultants shall be deposited. The special account including interest, if any, shall be expended at the direction of the Board without further appropriation provided that such funds shall be expended only in connection with carrying out the Board's responsibilities under law. Any excess amount in the account attributable to a specific project including accrued interest, if any, shall be paid to the applicant or to the applicant's successor in interest, if applicable. The Board shall provide a final report of the account attributable to the project to the applicant or to the applicant's successor in interest, if the successor in interest is entitled to receive any excess. The Board may require proof that an applicant's successor in interest is entitled to receive any excess amount before authorizing payment of any excess to a successor in interest.

AUTHORITY FOR REGULATION: General Laws, Chapter 44, Section 53G and Chapter 40A, Section 9.



## Town of Middleborough

Massachusetts

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### BOARD OF SELECTMEN

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The Honorable Larry Echohawk  
Assistant Secretary for Indian Affairs  
UNITED STATES DEPARTMENT OF THE INTERIOR  
1849 C Street, N.W.  
Washington D.C. 20240

Ms. Paula L. Hart  
Director  
Indian Affairs Office of Indian Gaming  
UNITED STATES DEPARTMENT OF THE INTERIOR  
1849 C Street, N.W.  
Washington D.C. 20240

Re: *Fee-to-Trust Application for Land for Gaming Project in Town of Middleborough of Mashpee Wampanoag Tribe – Concerns About Recent Tribal Activity.*

Dear Assistant Secretary Echohawk and Director Hart:

As you will recall, the Town of Middleborough negotiated a comprehensive Intergovernmental Agreement ("IGA") with the Mashpee Wampanoag Tribe shortly after the Tribe secured its federal acknowledgement from Interior's Office of Federal Acknowledgement three years ago. The IGA was approved on July 28, 2007, by what is believed to be the largest New England town meeting in history. That comprehensive agreement concerned the delivery of municipal services for a casino project on land within the Town.

On July 30, 2007, tribal representatives personally delivered to the Eastern Regional Office for the Bureau of Indian Affairs ("BIA") an application for fee-to-trust (gaming) acceptance of the project site, a 539 acre land parcel in Middleborough, as well as non-gaming trust land in the Town of Mashpee. Since that time and consistent with the provisions of the IGA, the Town has been a very supportive partner of the Tribe in this effort. While the Town has met both the spirit and provisions of the IGA, it now appears that the Tribe intends to unilaterally abrogate that binding agreement. Indeed, the Tribe recently announced that it has entered into an agreement for a competing casino project with the City of Fall River, Massachusetts.

The Honorable Larry Echohawk  
Ms. Paula L. Hart  
July 12, 2010  
Page 2

Curiously, Tribal Chairman Cedric Cromwell has stated that the Tribe will apply to have the Fall River casino site taken into trust for gaming by amending the existing trust application to add the Fall River parcel to the Middleborough application, rather than submitting an independent application. The inescapable conclusion is there is an intention to use the IGA and good will generated within the Department of the Interior by the Tribe's relationship with Middleborough to bolster the Fall River add-on amendment. The "piggy back" approach appears designed to create an illusion that the two parcels are identical as a matter of legal qualification for gaming, when in fact they are not. The Tribe has an application for an "initial reservation" in Middleborough and Mashpee with gaming to be approved for the Middleborough parcel; any subsequent "initial reservation" application is contrary to IGA. It is nothing short of legal chicanery for the Tribe to now attempt to expand its "initial reservation" request to include land for a casino in Fall River which would directly compete with an already-contracted project in Middleborough.

Simply stated, the Town of Middleborough is inalterably opposed to the addition of the Fall River land to the existing trust application for the Middleborough project.

Middleborough has carefully and without digression fully complied with the terms and conditions of the IGA. The Town has officially supported the Tribe's July 2007 trust application, and for three years has conducted all municipal planning of its infrastructure to insure compatibility with, and accommodation of, the proposed Mashpee Wampanoag Resort/Casino facility. With the Town's assistance, that proposed tribal project has gone through the NEPA scoping process and a Draft Environmental Impact Statement has been prepared for a project in Middleborough, and the information developed and submitted to the Department is site specific in all regards. The Town worked hand-in-hand with the Tribe and its consultants on all of these matters, and the tribal progress to date would not have been achieved without our participation. Similarly, the Town has embarked on a number of extensive planning studies to insure that Middleborough would be in a position to accept the massive tribal development.

To this end, we understand that the BIA has advised the Tribe on a number of occasions that it should continue to process the fee-to-trust application for the Middleborough site and secure approval for gaming as "initial reservation land" pursuant to the specific provision therefor at 25 U.S.C. § 2719(b)(1)(B)(ii). We believe that the site's eligibility for initial reservation status is clear and demonstrated.

The Town of Middleborough continues to support that trust application, the Tribe's development and operation of Indian Gaming in Middleborough and the validity of the IGA. However, the current actions by the Mashpee Wampanoag to abrogate the valid, lawful and binding IGA, in favor of entering into a second competing agreement call into question the Tribe's capacity to honor binding contracts as a sovereign governmental entity. Of concern is how this Tribe, which has informed the Town that it does not intend to honor the IGA and all plans to pursue the casino development provided for in that agreement, can meet the

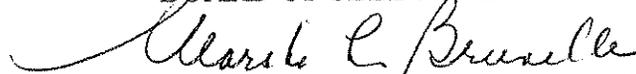
The Honorable Larry Echohawk  
Ms. Paula L. Hart  
July 12, 2010  
Page 3

requirements of responsibility for developing and operating a casino elsewhere. In any event, the Department should not encourage such conduct by allowing the Tribe to "amend" the Middleborough trust application to include Fall River property.

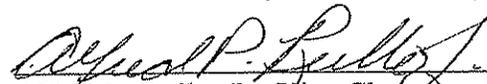
It is now public information that the Town will invoke the dispute resolution process established by the IGA. While this development is an unfortunate occurrence, it is dictated by the arbitrary, capricious and shocking actions of the Mashpee Wampanoag Tribe to abrogate the mutually-negotiated IGA. The current tribal activity is a development of which the BIA should be aware when dealing with the Mashpee Wampanoag on any land acquisition or economic development project. If the Tribe does not honor its legal obligations under valid contracts, then one must ask whether it should be allowed to operate a casino.

Respectfully yours,

TOWN OF MIDDLEBOROUGH  
BOARD OF SELECTMEN



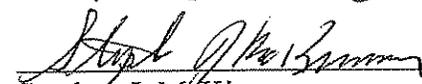
Marsha L. Brunelle, Chairman



Alfred P. Rullo, Jr., Vice Chairman



Muriel C. Duphily

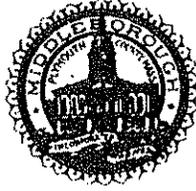


Stephen J. McKinnon



Steven P. Spataro

cc: The Honorable Tracie Stevens  
Chairman  
NATIONAL INDIAN GAMING COMMISSION  
1414 L Street, N.W. - Suite 9100  
Washington, D.C. 20005



# Town of Middleborough

Massachusetts

BOARD OF SELECTMEN

July 12, 2010

The Honorable Cedric Cromwell  
Chairman  
MASHPEE WAMPANOAG TRIBE  
1048 Great Neck Road, South  
P.O. Box 1048  
Mashpee, MA 02649

*Re: Annual Pre-opening Mitigation – Planning Payment*

Dear Chairman Cromwell:

It has come to the Middleborough Board of Selectmen's attention that the Town has not received the FY 2011 Pre-Opening Mitigation – Planning Payment as identified in Section 5.A. of the Intergovernmental Agreement. Said payment should have been received by the Town for the start of the fiscal year on July 1, 2010.

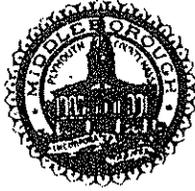
As you are aware, the Town is using this money to assist you and the Town with resort related matters. In addition, attached you will find a summary of projects and expenses that the Town is currently undertaking or has completed related to planning and preparation for the resort casino that have been funded by the pre-planning monies.

Thank you in advance for your attention to this matter. Should you have any questions, please do not hesitate to contact Charles J. Cristello, Town Manager at (508) 947-0928.

Respectfully yours,

Marsha L. Brunelle, Chairman  
Middleborough Board of Selectmen

PROJECTS	CONSULTANTS/EXPENSES	Original Approved Amount	Current Balance 6/2/10
STAFF SALARIES	Salaries and Benefits for Clerk, Planner & OECD Staff	\$238,695.40	\$26,711.64
EMS STUDY	Matrix Consulting Group	\$24,900.00	\$0.00
ADVERTISING	Monster Com -Staff Planner (Twice)	\$1,865.88	\$0.00
SUNDRY	Computer and APA Las Vegas Conference	\$5,231.93	\$0.00
HOTEL FEASIBILITY STUDY	Pinnacle Co.	\$16,000.00	\$3,950.50
IMPROVEMENTS	Fort Hill Advisors, LLC	\$7,500.00	\$5,000.00
MEDICAL CENTER FEASIBILITY STUDY	Brown Lindquist Fenuccio & Rober Architects	\$15,000.00	\$15,000.00
EVAL. OF HOSPITAL SITE FOR POLICE STATION	Reynolds Co.	\$5,000.00	\$500.00
TOWN LAND APPRAISAL FOR HOTEL/RETAIL DEVELOPMENT	Realth Appraisal	\$2,100.00	\$2,100.00
APPRAISAL OF OLIVER ESTATE PROPERTY FOR PRESERVATION	Land For Good	\$16,655.00	\$16,655.00
PRESERVATION PLAN FOR THOMPSON STREET	McMahon Associates	\$8,900.00	\$67.50
RING ROAD GEOMETRY FOR TOWN LAND	McMahon Associates	\$35,000.00	\$31,292.50
PHASE I TRAFFIC STUDY - ROUTE 44	ESRI GIS Conversion	\$25,000.00	\$6,056.93
GIS SYSTEM CONVERSION	Attorney Mark Bobrowski	\$6,000.00	\$6,000.00
COLOR PLOTTER FOR GIS PLANNING MAPS	CDM Contract	\$30,000.00	\$30,000.00
RECODIFICATION OF ZONING BYLAWS	Programs related to future resort workforce	\$20,000.00	\$20,000.00
WASTEWATER TREATMENT PLANT - TASK I	ENCUMBERED BALANCE TOTAL 6/2/10:	\$50,000.00	\$48,896.21
LINCOLN D. LYNCH SCHOOL		\$517,848.21	\$212,230.28
	SPENT BY TOWN TO DATE:		\$305,617.93
	UNENCUMBERED BALANCE 6/2/10:		\$232,151.79
	TOTAL CASINO ACCOUNT 6/2/10:		\$444,382.07
	TOTAL AMOUNT RECEIVED FROM TRIBE:	\$750,000.00	



**Town of Middleborough**  
**Massachusetts**

**BOARD OF SELECTMEN**

July 12, 2010

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# **ENERGY CONSERVATION RECOMMENDATIONS FOR MIDDLEBOROUGH MUNICIPAL BUILDINGS**

The Green Energy Committee for the Town of Middleboro has been visiting many of the municipal buildings in town to evaluate the systems and practices that affect energy consumption in town buildings. We have found a general need to improve both the energy use practices and the mechanical systems that provide energy in town buildings. The deficiencies in these areas lead to uncomfortable working conditions for staff and citizens, heating and air conditioning systems that are difficult or impossible to control, and inefficient and unnecessarily expensive energy use that impacts the costs of operation and our local and global environment. Energy cost is close to a million dollars per year for all town departments, not including the schools. We would anticipate that savings in the range of 10 to 20% could be realized through careful use of the present systems. Improving the controls and mechanical systems in major building could gain another 10 to 20% of energy costs. These improvements will not last if the town fails to support these buildings with proper maintenance and control. Changing the culture of energy use requires ongoing support. Staffing changes and additions may be necessary to establish lasting efficiencies in energy use and savings in energy costs.

BELOW IS AN OUTLINE OF RECOMMENDATIONS :

## **1. USE OF ENERGY-**

A. Establish clear hours of operation during which heating and cooling levels will be followed for each building and office space.

B. Establish heating and cooling temps for operating times and clear set back temps for all non operational hours.

C. Create specific shut down steps for lights, office equipment, and all electrical devices for all non operating hours.

D. Implement a support system that checks on compliance of energy use recommendations and encourages compliance with conservation practices

E. Find ways to manually control heating and air conditioning systems in buildings so staff can directly monitor and control the systems in their building.

F. Monitor energy use in all buildings and report to employees, management, and town government on monthly progress.

## 2. MECHANICAL AND SYSTEMS IMPROVEMENTS-

A. Complete full "energy audits" on all municipal buildings

B. Prioritize repairs of existing systems to get systems under basic control

C. Resize systems to reflect actual use of spaces in buildings

D. Repair systems to proper function for individual spaces with repairs going first to most wasteful systems.

E. Develop a maintenance and ongoing repair plan

E. Educate key staff in controlling systems in accordance with heating and cooling guidelines and hours of operation.

## 3. STAFFING ISSUES-

A. Identify staff in each office and/or department who are willing to help with energy management in their building.

B. Review energy issues with all department managers and interested staff.

C. Train staff in approaches they can make to control energy use in their building with clear temperature settings, means of controlling systems, etc.

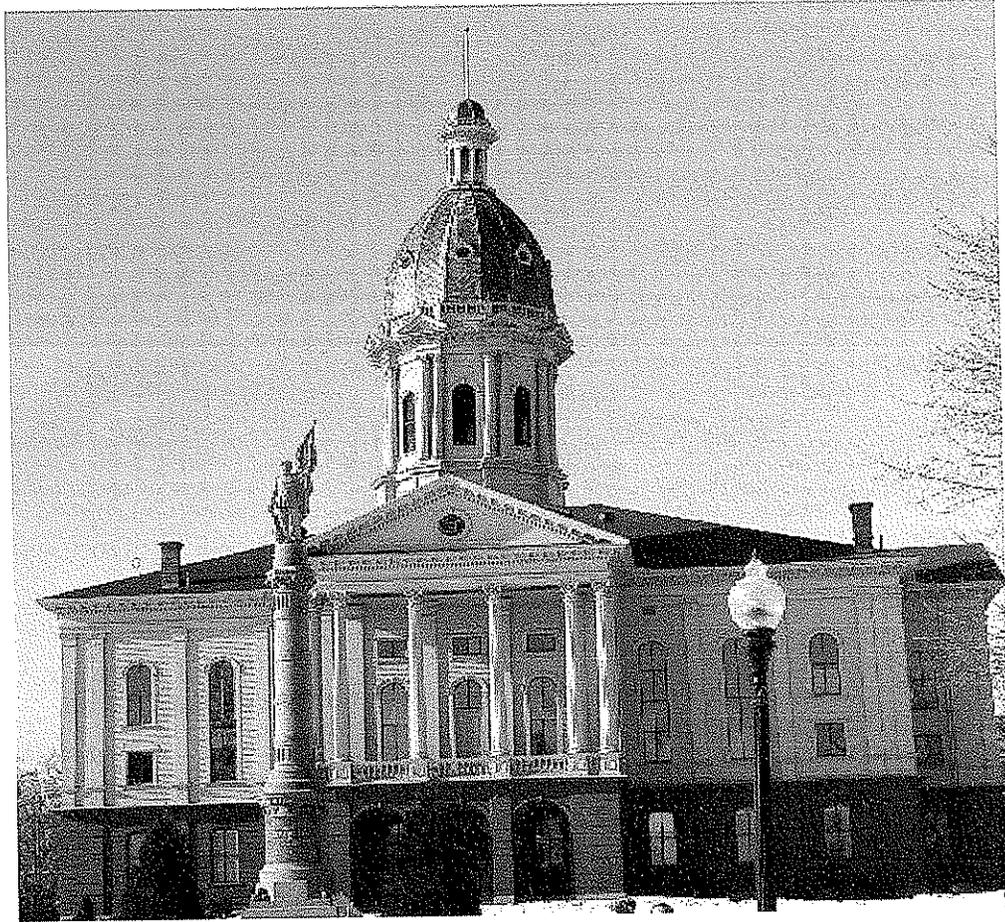
D. Provide ongoing support for staff in energy conservation activities through regular reporting, monitoring, and meetings.

E. Hire staff with expertise in energy conservation and the control, maintenance, and repair of energy systems to keep systems working and to maintain control of those systems.

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# Middleborough Town Hall

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## Functional / Energy Assessment and Preliminary Strategic Energy Plan

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Prepared by  
Middleborough Green Energy Committee  
Brian Kowalski CEM, LEED AP

July 2010

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## EXECUTIVE SUMMARY

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The Middleborough Town Hall has excellent opportunities to improve energy efficiency, while at the same time providing a more comfortable working environment for employees and the public. Gas used for space heating in the Town Hall is 3 to 5 times per square foot more than one would expect for a building of this type and use. In addition, electrical use is 20% higher in the summer than is accounted for by the equipment installed in the building. This energy analysis identifies the causes of the energy losses, suggests mechanisms to fix the problems, and could provide over \$11,000 per year in savings for this one building alone (Table 1). The repairs to the energy systems are not costly and would see a payback of one year or less, with continued savings every year.

**Table 1: Opportunities for Energy Savings**

Project	Cost	Annual Savings	Payback (years)
Setback temperature on second floor	\$4,000	\$3,900	1.0
Shut off backup circulator pump	\$0	\$1,300	instant
<b>HVAC Air System Controls Measures</b>	<b>\$5,200</b>	<b>\$5,500</b>	<b>0.95</b>
Re-calibrate controls, set-points, dampers			
Optimize ventilation rates			
Right-size VAV box airflow			
Seal leaks between ballroom and attic (without setback for 2 <sup>nd</sup> floor)	\$500	\$1,500	0.33
Seal leaks between ballroom and attic (in addition to setback for Second Floor)	See above	\$400	1.25

Energy saving opportunities are as follows:

- ❖ **Setback the temperature on the second floor.** It is unnecessary to heat the ballroom during the winter when it is not in use. The pipes can be protected from freezing by replacing the water with propylene glycol. The space will not be too cold because it will get some heat rising from the first floor.
- ❖ **Shut off the backup circulator pump for the heating system.** Running the extra pump increases pipe noise, increases pipe erosion, imbalances heat delivery to individual radiators, and uses an unnecessary 7,900 kWh of electricity per year.
- ❖ **Recalibrate controls.** Heating and cooling systems run continuously during the winter and summer, respectively. The system needs to be set up so that the heat is turned down and the air conditioning is turned off when the building is not in use. The bathroom exhaust fans, which exhaust a lot of air, also need to be shut off when the building is not occupied. The current HVAC and control systems are not easy for non-technical personnel to operate, therefore an employee with technical skills needs to be identified and trained to monitor the systems for proper operation.

- ❖ **Fix the return air and outside air dampers.** Because of the slipping dampers, excess outside air is brought into the building where it must be heated or cooled. In the winter, the cold air coming through the air return was found cascading over employees or in one case over the thermostat, leading to an overheated room.
- ❖ **Optimize Ventilation rates.** The building is usually lightly occupied and being old, it is not tightly sealed. The excess air currently brought in through the ventilation system must be heated or cooled and is not necessary for healthy indoor air quality.
- ❖ **Right-size VAV box air flow rates.** Too much air is flowing through the VAV boxes for the current occupancy level and use, leading to spaces that are seriously overcooled in the summer. This wastes energy and makes it uncomfortable for employees working in the building.
- ❖ **Seal air leaks between the ballroom and the attic.** The large opening between the ballroom and the attic leak a considerable amount of warm air into the attic where it is lost through the roof.

SITE OVERVIEW

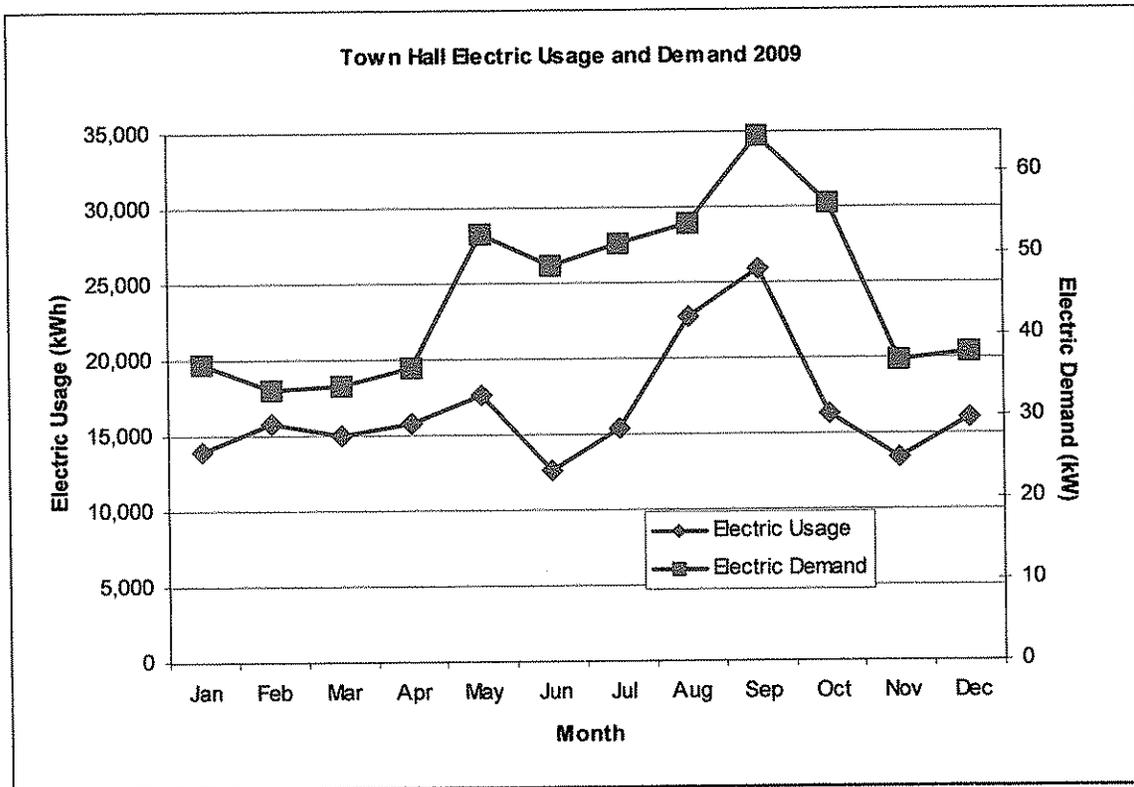
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2.1 Introduction

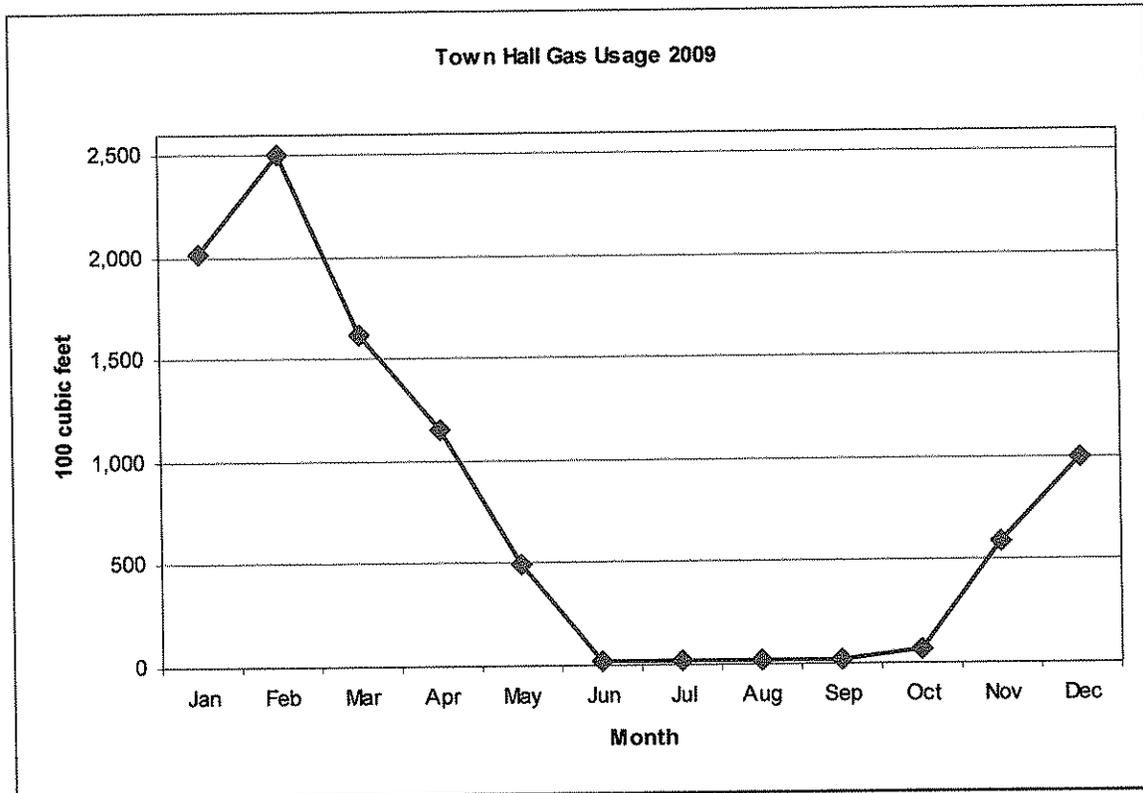
The town hall energy systems were reviewed on 8/25/09 by two members of the Middleborough Green Energy Committee and a representative of the Middleborough Gas and Electric. We toured the building, looked at mechanical and lighting systems, and interviewed occupants about system functionality throughout the year. We then inspected mechanical components and drawings/plans for the construction of the systems. A second site and systems inspection was performed in February 2010 by two members of the Middleborough Green Energy Committee to review system operations during the heating season.

2.2 Historical Energy Use

Figure 1 – 2009 Electricity



**Figure 2 – 2009 Gas**



The town hall building used 200,760 kWh of electricity in 2009 and had a peak demand of 64.5 kW during the month of August. Gas is used primarily for space heating during the winter and gas use was 9,827 therms for the year. The average electric cost was \$0.17/kWhr and the average gas cost was \$18.00 per MMBTU or \$1.80 per Therm. The preliminary analysis for the energy efficiency measures uses these rates.

We reviewed the electricity usage and billing history for the site and made the following observations:

- Gas use spikes heavily during the winter as one would suspect since the gas is used almost exclusively for space heating
- Gas use for space heating is between 3 to 5 times as much per square foot (approximately 475,000 BTU per gross building square foot) as one would expect for a

building of this type and use. If one excludes the ballroom, which purportedly is not heated, then gas use per square foot would compare even more unfavorably to commercial standards.

- The electric demand is consistent with the equipment installed in the building with the exception of a demand spike that was 20 percent higher in August or early September and another spike in September/October that was 7.5 percent higher than the typical summer demand for the building.
- It appears that lighting only uses 20-30,000 kWh per year and it is not clear where the other 170,000 kWh in electricity is going. The HVAC system fans should run approximately 800 hours per year, which would use 3,000 kWh. This leaves a large amount of electricity use that could only be accounted for if the building is cooled and ventilated continuously throughout the summer. This has been confirmed with several weekend and holiday visits during the summer.

## **2.3 Facility Description**

The Town Hall is a two story building with a basement and was constructed in 1871. The facility underwent extensive renovations in 1999-2000. At that time, the facade was re-done, thermal glazing was installed in the historic windows, the electrical systems and lighting were upgraded, and central air conditioning and ventilation was added. The hot water finned-tube heating system had some minor modifications done at this time. The interior walls, ceilings, and floors were renovated or refurbished as well. The building has a total of approximately 14,000 square feet over two floors plus a full basement. The basement consists of storage and a large office/room for the IT department. The first floor houses town offices, the selectmen's meeting room, a small meeting room, a break room, and restrooms. The second floor is comprised of a large ballroom and a stage area. Typically there are 13 people working in the building on a regular basis. During business hours, 1-15 members of the public are in the building to conduct town business. At times, various rooms (especially the selectman's meeting room) can be heavily occupied for town meetings.

## **2.4 ENERGY SYSTEMS**

### **2.4.1 LIGHTING**

Offices are illuminated with T-8 linear fluorescent light fixtures. The halls have old style incandescent fixtures with hard-wired retrofit compact fluorescent lamps. The ballroom has a combination of metal halide downlights, chandeliers with incandescent lamps on dimmers, and wall sconces with fluorescent lamps.

### **2.4.2 Mechanical Systems**

Cooling for the facility is provided by an air-cooled packaged chiller which is located outside in a mechanical systems pit along with the condensing unit for the IT room split cooling system and the backup generators. Heating for the first floor is provided by baseboard hot water radiators. HVAC for the IT room is provided by a stand-alone Liebert air handler that has direct expansion (DX) cooling. The second floor ballroom is heated only, with no mechanical cooling ducted to the space. The heating is provided by perimeter radiators, with hot water coming from the main boiler. The boiler provides hot water for the second floor radiators, for the re-heat coils in VAV boxes, to a pre-heat coil in the main air handler, and to the perimeter finned-tube heating radiators in the first floor offices.

Controls for the HVAC systems are independent for the ventilation/cooling system versus the perimeter radiator heating system. There is no communication between the two control systems and they can, therefore, fight each other if the boiler and air conditioner are both operational at the same time.

The first floor and parts of the basement are cooled and ventilated with air from the main air handler. This air handler feeds into a variable air volume (VAV) distribution system. A variable air volume system is meant to provide a small amount of air for cooling and ventilation when load in the space is low (i.e. low occupancy) and increase the airflows when loads in the space are high (i.e. high occupancy). There are re-heat coils in the VAV box that are intended to re-heat the air to maintain proper space temperature in case the minimum air flow settings are greater than the amount of air required for cooling the space at any given time. In this facility however, the boiler is turned off for the summer and from a combination of low loads and high airflow, the spaces get over-cooled. Since this system was designed with a minimum occupancy that is much greater than is realized, even the minimum airflow rates are almost always higher than are needed for cooling and the spaces get over-cooled. It appears that attempts have been made in the past to re-set the supply air temperatures at the air handler in order to prevent over-cooling of the spaces. This may help prevent some over-cooling, but it causes high relative humidity levels in the facility. High relative humidity causes a whole host of indoor air quality issues in addition to being uncomfortable from being "clammy", and the high humidity increases the sensitivity to common odors (such as cleaners, smoke and "mustiness" of the facility and stored items).

The design of this system, combined with the high summer humidity, requires that the air handler provide air that is no warmer than 55 degrees to the VAV boxes. It is up to the VAV box controls (combined with hot water from the boiler), to vary the flow and reheat the air when required to maintain a comfortable space temperature for each space. This is a fairly energy intensive type of system if it is operated as designed. The apparent change in the operating strategy of shutting the boiler off during the summer, combined with the air flow rates being oversized for the present use of the space, leads to operations that significantly overcool the building or create high indoor humidity levels.

It is suspected that the controls for the VAV air system were never commissioned and as such never really functioned properly. In addition, it appears that service personnel (HVAC contractors) were brought in from time-to-time to do "repairs" to the system; however they were not familiar with the system design/equipment/controls and control troubleshooting/programming. As is typical with this type of attempted "fix", they likely did

manual adjustments to VAV box dampers which further defeats the ability of the controls to operate the system as conditions change.

## **2.5 Additional Observations on the Mechanical Systems**

Air side HVAC systems were set up for maximum occupancy levels in each of the spaces. Because there are no provisions for sensing occupancy (CO2 based ventilation control) the system provides enough ventilation and cooling capacity for 2-10 times the typical occupancy level of the spaces. This excess ventilation is both costly and creates a dysfunctional system operation as the system typically overcools the spaces. In addition, since the heating system controls and cooling system controls are separate and do not communicate, one system can be trying to cool the space while the other system tries to heat it, resulting in a huge waste of energy.

Also observed during the site inspections both during the summer and winter was that the air control dampers on the air-handling unit were loose on the shaft/linkages. In the summer, this resulted in a large excess of outside air being brought into the air-handling unit, where it was cooled and passed into the building. Apparently, the exhaust/relief dampers were closed and the building was being slightly pressurized. This was confirmed for both the basement at the rear entry door and for the main level doors when they were open. When the doors were closed, this excess air found its way up the lobby/stairs and into the ballroom area which was incredibly cool for a space with no cooling system. During the winter, the natural stack-effect of the building (warm air in a building tries to rise and leak out the top and cool air comes in at the lower levels), combined with the incredibly leaky ceiling in the ballroom and stage areas, was causing cold air to be drawn in through the air handler (even though it was off), where it entered the spaces through the return air path. This air was cold and it tended to dump into ceiling plenums and out through the return air grills. In the selectman's room the return air grill for the ventilation system happens to be above the thermostat. The cold air entered the room and cascaded down the wall over the heating system thermostat. Since the cold air was hitting the heating system thermostat, the perimeter baseboard heat was on at full capacity and most of the room (except for a small area directly around the door and thermostat) was over 80 degrees.

It was mentioned by staff that the ballroom was not heated during the winter; however there are no provisions for control of the heating system or provisions for freeze prevention for the radiators in the ballroom. In addition, a visit in February of 2010 revealed that the ballroom was indeed being heated.

The following is a more detailed description of the proposed system modifications and repairs that could be implemented to save energy, reduce operating costs, and make the building more comfortable for employees.

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## **RECOMMENDATIONS FOR OPERATIONAL AND EFFICIENCY IMPROVEMENTS**

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### **3.1 Plug Loads and Office Equipment**

During the course of the audit visits and at other times when in the Town Hall, informal surveys of the various office equipment showed that most of the equipment was either turned off or was in a "sleep" or low power mode. Notable exceptions to this were the copy machines/printers. Nearly all computers, networked printers, and networked printer/copiers have low power modes that can be automatically programmed on internal timers or when the device has not been used for a set period of time. The low power mode can be set to automatically re-start when a print job is sent to it or when someone makes a copy. Some of the more advanced networked copier/printers have more than one level of low power mode that can "awaken" the device at faster or slower rates.

### **3.2 Lighting Systems**

Since the bulk of the lighting systems that are used frequently already use compact fluorescent and fairly efficient T-8 lighting technologies, there is not much that can or should be done with regards to further upgrades for efficiency. The incandescent lamps on dimmers in the chandeliers for the ballroom are used infrequently and as such, the newer cold-cathode dimmable fluorescent or LED technologies would have a very long payback and are not recommended at this time. For the most part, it appears that the local control (wall switches) for the lighting are properly located and used, thus no motion sensor-based switching technologies are recommended at this time.

### **3.3 HVAC - Heating Systems**

#### **3.3.1 Setback Temperature on the Second Floor**

Site personnel indicated that the ballroom was not heated in the winter. Inspections of the heating system and controls showed no active setback controls or freeze protection control for the radiators. During the site inspections in February and March, the ballroom heat was indeed operating and the ballroom and stage area were comfortable even though there are significant

air leaks above the ballroom in the ceiling of the stage area, and the chandelier cupolas leak a significant amount of heated air into the attic of the building.

A few approaches can be taken to minimize the heating of the ballroom and stage areas during the winter while minimizing the risk of freezing any radiators or pipes. One option is to use controls and sensors at select locations on the piping and radiators of the ballroom to monitor for low temperatures and run the heat to stay well above freezing. A second option would be to add a circulator to the piping for the second floor to create a tertiary loop and monitor the return water temperature at this one location. This temperature would be used to control the amount of hot boiler water that is injected into the tertiary loop to minimize the heating further than method one above. A third option would be to replace the water in the boiler/heating loop with a propylene glycol and water solution to prevent the piping from freezing down to a temperature of 10 degrees Fahrenheit. This method would reduce the energy use by the largest amount. The ballroom will still not be extremely cold as most of the heat loss from the first floor will be through the ceiling and up into the ballroom.

Another area of significant heat loss was the Janitor off of the lobby area by Nickerson Avenue. This room was significantly over-heated (approaching sauna temperatures) due to a control problem with the system. According to the custodian, this has been this way since he was working in the building.

### **3.3.1.1 Savings Analysis**

Based on the above information and additional assumptions on heat loss rate increase through the first floor ceiling to a colder third floor, method 3 above (freeze protecting the piping with propylene glycol) could reduce the building gas use by approximately 2,200 therms per year which is worth \$3,900 per year. This represents approximately 23 percent of the gas cost for the facility. Using one of the first two methods discussed above would likely save between \$2,000 and \$3,000 per year depending on how aggressive the setback temperature is or how successful the monitoring locations chosen work.

### **3.3.1.2 Implementation**

Control strategy for freeze protection: not recommended given that town buildings do not have a high success rate in maintaining control functionality

Propylene glycol: approximately \$5.00 net per gallon at a 30/70 percent solution (protection down to 7 degrees F) Assume roughly 500 gallons, for a total cost of \$2,500.

Controls: Additional work needs to be done on the faulty controls for the heating system to allow setback in the ballroom and prevent overheating in locations such as the janitor's office. Repair and setup of the heating controls is estimated to cost \$1,500.

### **3.3.2 Circulator pumps**

Although the heating system has two circulator pumps, one primary and one backup, we found that both pumps were running simultaneously. The consequences of running both pumps at once include pipe noise, pipe erosion, imbalanced heat delivery to the individual radiators, and extra electric use (5 hp ~ 3.0 Bhp). The estimated electric use for 3000 hrs/yr is approximately 7,900 kWh. This amount of electricity is worth approximately \$1,300 per year.

#### **3.3.2.1 Implementation**

Simply shut off the second pump, and if desired, modify the controls so that the second pump starts automatically if the first pump stops for some reason.

## **3.4 HVAC - Air Side Systems**

### **3.4.1 Repair, Re-calibrate, and Re-set schedules for HVAC control System**

Based on the historical electrical use, it was suspected that the HVAC cooling system runs continuously during the summer months. Numerous inspections of the facility during the evenings and weekends in late summer in 2009 and late spring/early summer 2010 proved that this is indeed the case. The system needs to be set up so that the controls will properly start and stop the air conditioning system in the proper sequence. Then town personnel need to be trained to monitor the cooling system for proper operation and alert service personnel if the system is outside program parameters.

On 8/25/09, it was noticed that cool air was going up the stairs, and the ballroom, which has no cooling, was relatively cool. Cool air does not typically rise. Return air and outside air damper linkages on the main air handler were slipping, and the dampers were not in calibration with each other, nor were they necessarily open or closed when they were supposed to be. It was observed that because of the slippage in the dampers, excess outside air was being brought in, thus increasing the load on the air handler for no useful reason, and this excess air was being pushed up into the ballroom.

A winter visit in February 2010 confirmed that there were problems with the dampers because in the winter cold air was cascading out of some of the HVAC return grills. This creates a very

uncomfortable situation for people working in the vicinity of these grills, and in one case, the air was flowing over the thermostat in the selectman's meeting room, causing the perimeter baseboard heat to overheat the room. With these dampers not secured, and with the leaky as ceiling in the ballroom, a considerable amount of warm air escapes through to the attic and out of the building, with cold air replacing it at the lower level through the un-secured HVAC system.

The driving force of this air moving through the building in the winter is due to the density difference between the inside air and the outside air caused by the difference in temperature. With the building as leaky as it is above the ballroom, combined with dampers that are open (also door & window cracks, open doors etc.), the air can move into the building, warm up, and then exit the top of the building. The nature of the "stack effect" is such that as it gets colder outside the density differences get larger, which drives even more air through the building. The control linkages on the main air handler need to be tightened and calibrated by a qualified HVAC technician who is familiar with this type and brand of control system and can perform the necessary repairs and operational checks to ensure the system is operating as required for functionality and efficiency.

Because the Town Hall is typically very lightly occupied for its size, coupled with the fact that the building is not very tight and the building is fitted with user-operable windows, it is recommended that the air-side HVAC system (air handler) be set up to not actively bring in extra outside air for ventilation except for periods when there is heavy occupancy (Selectman's meetings) or when outside air can be directly used for cooling the building (without using the chiller) for an air-side economizer cycle.

In addition to scheduling the main HVAC system to turn on and off, the central bathroom exhaust system needs to be operated on a similar schedule. It was confirmed that the bathroom exhaust system does operate continuously even when there are no occupants in the building nights and weekends. There are they four bathrooms and a total of 1600 cfm of exhaust (a lot). We confirmed that the fans run continuously; they should be shut off when the building is not occupied.

#### **3.4.1.1 Savings Analysis**

Scheduling the operation of the HVAC system to coincide with expected building occupancy will require that the system be used no more than 13 hours per day for 5 days per week (65 hours) and be off for the remaining time (103 hours). Shutting off the main air handler when the

building is unoccupied would save approximately 14,000 kWh annually. This amount of energy is worth \$2,400 per year.

For the loose HVAC damper/linkage problem, It is very difficult to estimate exactly how much extra air is being brought into the building under differing operating modes since there appears to be a “warm up” mode in the controls that may or may not move the dampers at all (a warm-up mode would close the outside air dampers before normal occupancy to reduce the active ventilation load on the system when warming up or cooling down the building before the normal occupancy of the building). Also, for the heating season, when the air handler is turned off, the amount of air passing through the open dampers and up through the building through the “stack-effect” of the building changes with both outside and inside temperature swings.

Savings for repairing and recalibrating the damper linkages will be based on reducing the amount of outside air going through the building that would have to be cooled or heated. Savings for heating was calculated using an 8760-hour spreadsheet analysis tool using a building balance point of 63 F outdoor temperature, TMY (typical meteorological year) weather data, and an average of 400 cfm of excess ventilation (approximately 4 percent of the air handler design flow). The extra heating lost due to this leakage is approximately 78 million BTU which takes approximately 975 therms of gas using an 80 percent efficient boiler. This much gas costs the town \$1,750 per year. This does not include the effect of overheating the selectman’s room due to the cold air cascading over the thermostat nor does it include the electricity used for space heaters that people use under their desks to counteract the cold air entering the ceiling plenum (return air path) and cascading out of the ceiling return air registers.

Savings for cooling energy were calculated using an 8760-hour spreadsheet analysis tool only accounting for system operation between 6:00 a.m. and 7:00 p.m. weekdays (assuming that the controls are fixed and re-programmed to run only when the building is scheduled to be occupied). The analysis used a balance point of 68 F drybulb outdoor temperature to account for some of the moisture removal requirements of warmer humid air and some fan energy. The extra ventilation due to the slipped damper actuator linkages above the design levels is approximately 38 million BTU’s of cooling or 3,200 ton-hours of cooling. With an air-cooled chiller efficiency of approximately 1.4 kWh per ton-hour delivered, this cooling energy requires 4,500 kWh which is worth \$750 per year.

The total savings from fixing and recalibrating the dampers and linkages for both heating and cooling is \$2,500 (\$1,750 + \$750) per year. When combining the savings from scheduling the HVAC system off during unoccupied hours with the savings from the damper linkage problems,

the overall savings becomes \$4,900 per year (\$2,500 + \$2,400). There may be some additional savings during the winter as some people use small electric space heaters to counteract the cold drafts from the HVAC system leaking cold air due to the loose damper linkages. As mentioned earlier, these loose damper linkages contribute to significant comfort issues during the winter.

#### **3.4.1.2 Implementation**

Implementation of this portion of the controls measure requires a repair and re-calibration of the damper actuators, linkages, and a final check of the controls for proper sequence and operation. These minor repairs and checks/calibrations should be able to be performed by a qualified technician (one who is familiar with this type and brand of control system) within a 4 to 8 hour period and thus should cost less than \$1,200 for minor parts and labor.

#### **3.4.2 Optimize ventilation rates to reflect actual occupancy**

Since the building is lightly occupied most of the time and the building is not very tight, there is little need to use the building cooling system to provide ventilation in excess of the natural leakage of the facility. The only exception to this is when there is a heavily attended selectman's meeting. For these events, there can be a control override to bring in more outside air if desired. Typical moderate density office occupancy levels are between 100 to 150 square feet per person. As a comparison, this facility typically has 13 people occupying approximately 8,000 square feet of space or over 600 square feet per person.

The air handler should be set up to provide no more than 700 cfm of outside air with no local/general exhaust at the air handler. Most of this extra makeup air will be exhausted through the toilet exhaust system with a small remainder to keep the building from developing a negative pressure. Even this amount of ventilation will accommodate a building occupancy of 45 people with no credit taken for any of the ventilation provided by the natural leakage of the building.

##### **3.4.2.1 Savings Analysis**

Savings for cooling and fan energy was calculated using an 8760-hour spreadsheet analysis tool only accounting for system operation between 6:00 a.m. and 5:00 p.m. weekdays. The analysis used a balance point of 68 F drybulb outdoor temperature to account for some of the moisture removal requirements of warmer humid air and some fan energy. The extra ventilation (this does not including the grossly excessive ventilation due to the slipped damper actuator linkages) above the design levels (based on a much higher building occupancy level) is

approximately 30 million BTU's of cooling or 2,500 ton-hours of cooling. With an air-cooled chiller efficiency of approximately 1.4 kWh per ton-hour, this cooling energy requires 3,500 kWh which is worth \$600 per year.

### **3.4.2.2 Implementation**

Implementation of this measure requires a re-balance of the toilet exhaust system as well as setting the minimum intake air for typical occupancy at the 700 cfm level. The setting of the air handler outside air flow at this level will take no more effort than setting the damper as required after fixing the loose linkages as part of the repair measure above.

### **3.4.3 Right-size VAV Box Air Flow for Current Space Use**

In cooling mode, when air enters a room from the HVAC system, it passes through several diffusers that are designed to diffuse the cold air into the room air evenly to ensure proper mixing. If the airflow through the diffusers is too high, it is noisy. If they flow rate is too low, the air does not mix, it instead falls like a waterfall onto the employee who happens to sit underneath or near the diffuser. The cold air also pools at the floor and does not mix properly with the room air.

To improve the functionality and the efficiency of the town hall cooling and ventilation system, the air flows need to be "right-sized" for the current minimum and maximum occupancies of each space. This would entail re-programming and rebalancing the diffusers, replacing or blocking off some of the diffusers to keep the air-flow rates between the minimum and maximum recommended levels for that size and style of diffuser. The system also needs to be checked to make sure that the controls and VAV box work properly together and vary the damper position, flows, and re-heat coil control valve position.

A second phase of "right-sizing" the system could be undertaken to further reduce energy use and maintenance for the facility. The second phase would be to add ductwork and an additional VAV Box to provide cooling for the IT Room and shut down (and mothball) the extremely oversized Liebert cooling system that is dedicated to the IT room.

#### **3.4.3.1 Scope of Work & modification details**

The chiller has 4 levels of capacity control with the 4 compressors. Check to make sure the lower settings do not end up short cycling the compressors. If necessary, the operating

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deadband for the start/stop of compressors can be widened (the deadband is typically from 42 to 44 degrees; a wider deadband can be from 41 to 46 degrees).

**VAV box settings & balance for diffusers:**

VAV Box	Area Served	Orig. Min/Max	New Min/Max	Notes & Details
V-1	Assessor's Office	250/825	150/600	Rebalance diffuser for back office to lower cfm setting.
V-2	Assessor's Office	230/780	200/500	
V-3	Selectman's Room	540/1800	450/1800	
V-4	Administrative Office	360/1200	200/800	Block off ducts to 2 diffusers in interior of room and move remaining 2 diffusers approximately 4 feet further from outside wall
V-5	Town Manager	200/670	150/500	Block off duct to wall register SR-1 near interior of room
V-6	Stairs/Entry Nickerson	270/900	250/800	
V-7	Meeting Room	240/810	140/580	
V-8	Lavatories	320/1070	250/800	
V-9	Front Stairs	180/600	120/500	
V-10	Basement	750/2500	750/2500	Reduce balance on EF2 from 1600 cfm to 600 cfm

- Notes
- 1) provide additional programming to allow box to fully close if minimum flow setting still over shoots setpoint a.k.a. "Shutoff VAV"
  - 2) Rebalance diffusers at same ratio as above new flow settings with exception of areas where diffusers are to be "blocked off"

**3.4.3.2 Savings Analysis**

The primary benefits from this measure is to be able to deliver drier air to the spaces during the summer, while at the same time preventing overcooling of the spaces. The drier air delivery will help prevent the high humidity conditions that are conducive to mold and mildew growth. The energy savings from this component will be from a reduced airflow and reduced overcooling of the spaces and has been factored into the savings analysis for the previous measure.

**3.4.3.3 Implementation**

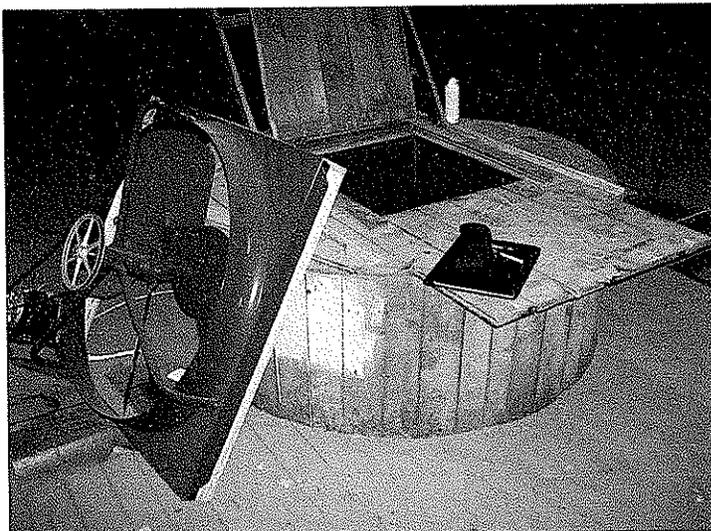
To re-check (and repair as necessary) the VAV box controls, re-balance the minimum and maximum flows, and block off selected diffusers, should take a two-person team of qualified

technicians less than two days to complete. Depending on how many parts are required for repair, the cost to perform the above scope of work should be less than \$4,000 for an overall HVAC control system repair/recalibrate//optimize cost of approximately \$5,200.

### 3.5 Building Envelope

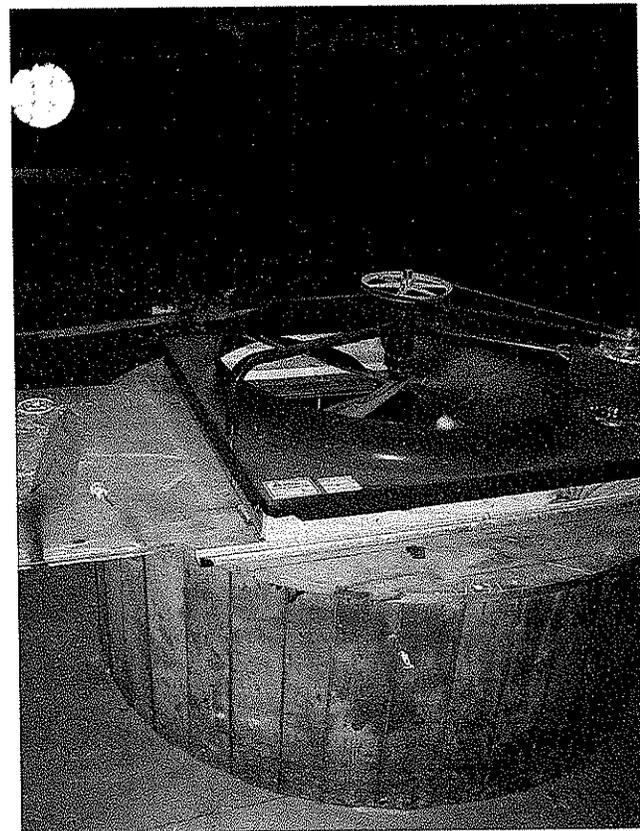
#### 3.5.1 Seal air leaks between Ballroom and attic

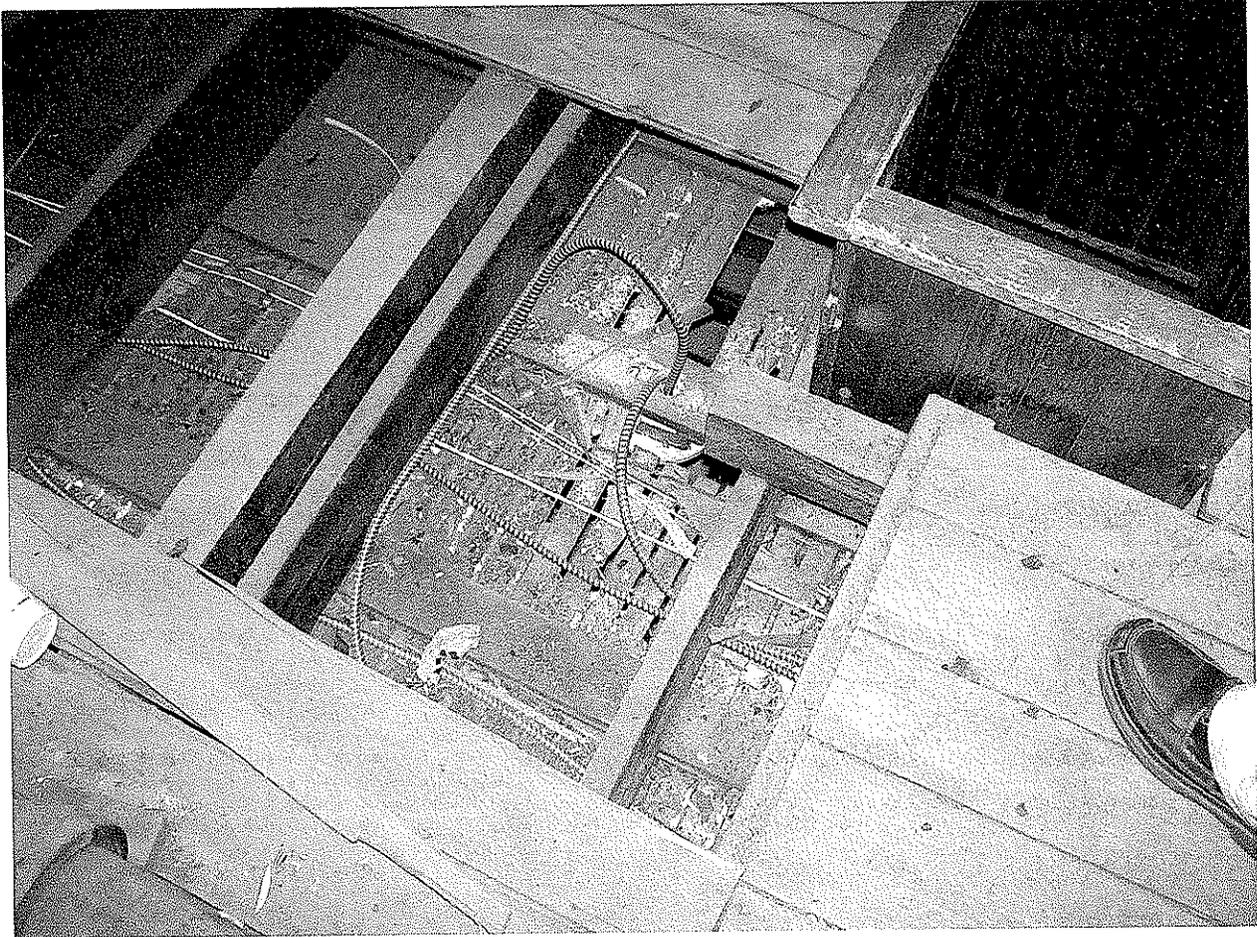
There are a significant number of sizable openings above the ballroom and stage area into the attic. These openings leak a considerable amount of warm air into the attic where it is then lost through the roof. See pictures below:



Vents above Chandeliers

The picture below shows one of the numerous holes through the original lath and plaster ceiling as well as a chase for some sort of stage curtain/prop or line access that is both open and missing some trim that would provide a better air-seal around the chase.





These openings, combined with a heated second floor, contribute to the excessive heat loss and heating energy used for the town hall. Even if the measure for setting back the heat for the ballroom was implemented, the savings from sealing these large gaps would be worthwhile.

#### **3.5.1.1 Savings Analysis**

For the ballroom heated as it presently is, the savings from sealing up these large leaks would be approximately \$1,500 per year. If the measure to freeze-protect the boiler water system is implemented, the savings would be approximately \$400 per year, on top of the \$2-3,000 savings from turning off the heating in the ballroom when not in use.

#### **3.5.1.2 Implementation**

Implementation of this measure can be done in a very basic fashion or as a major repair/renovation to the ceiling in the stage area. The very basic fashion for patching the holes consists of using approximately 25 square feet of 6-mil plastic film, a staple gun, approximately 6 to 8 cans of expanding foam insulation, and a few hours of labor. Sealing the cupolas above

the chandeliers could be as simple as removing the nails someone installed to keep the sliding door on the top of the cupola open and shutting the sliding doors, or it could consist of fabricating new operable covers with better seals – the main thing is to get the big openings closed off.

Sealing these leaks and closing off these openings in a very basic fashion will cost less than \$500 to implement. Of course, if it were desired to renovate the ceiling or to fabricate new cupola covers, the cost would be considerably higher.