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Review of Proposed Plan for New Police and Fire Facilities, Carver, MA

Edward J. Collins, Jr. Center for Public Management, University of Massachusetts Boston

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Edward J. Collins, Jr. Center for Public Management

McCORMACK GRADUATE SCHOOL OF POLICY AND GLOBAL STUDIES

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BACKGROUND AND OVERVIEW OF FINDINGS

The Edward J. Collins, Jr. Center for Public Management at the University of Massachusetts Boston was hired by the Town of Carver to perform an independent assessment of the Buildings Study Committee's proposals for the construction/renovation of three new public facilities including a fire station, police station, and elementary school. Specifically, the team from the Center was asked to review: 1) the selected and considered sites for the facilities; and, 2) the funding plan recommended by the Buildings Study Committee.

This analysis has been divided into two components. This, first report presents the Center's findings as they relate to the public safety facilities. A second report will address the elementary school project.

The topic of funding for the public safety facilities will be the subject of Town Meeting scheduled for Tuesday, November 12, 2013 wherein participants will be asked to authorize the Board of Selectmen to enter into debt to fund the new/renovated facilities. The Town Meeting vote will not issue any debt; the Board of Selectmen will need to vote at separate point in time whether to move forward and borrow funds for the projects. The project team's analysis studied the potential for proceeding with the Fire Station in FY2014 and the Police Station in FY2017.

OVERVIEW

Based upon its evaluation, the Collins Center's project team has found:

1. **Of the sites under consideration, 99 Main Street offers the best available location for the new Fire Station and Training Facility and rebuilding the Police Station at the existing site at 112 Main Street will give the station higher visibility and will allow for the reuse of the site and a portion of the existing building.**

The Buildings Study Committee has proposed that a new Central Fire Station and training facility be built at 99 Main Street, where the existing training facility is located today. Then, once the Fire Department has moved to its new location, the existing station would be demolished and a new Police Station be built in its place and the rear portion of the building, where the Police Station is located today, would be renovated as part of the new Police Station. The project team has reviewed the properties considered for these new public safety facilities by the Building Studies Committee, and the Police / Fire Station Study Committee before them, and has also reviewed an inventory of Town-owned property to identify additional sites for consideration. After considering the stations' needs and proposed concept designs, the project team finds that the site at 99 Main Street is the best available for the new Fire Station and Training facility. Construction of a new station at 99 Main Street will offer appropriately sized bays for the fire apparatus where they will not be in potential conflict with other nearby uses and a fire station that meets modern day needs for equipment storage, the cleaning and storage of personal protective equipment, and space for a workforce that includes male and female firefighters. In addition, the new station will be ADA compliant as is expected of civic buildings today. The new Police Station will be

designed to meet the Police Department's needs today and for decades to come and will address all of the many shortcomings documented in the existing facility today. Reusing the existing site at 112 Main Street and a portion of the existing building will give the Police Station a higher visibility than it has today. Given the sites' proximity to the gas pumping station and the EMS building, it is an appropriate location for a public use such as a police department that is active 24-hours per day.

2. The debt service for the public safety projects could be covered through the application of the Committee's proposed funding strategy while maintaining conservative capacity for other operating budget needs.

The Buildings Study Committee has proposed a plan to fund the new Fire and Police facilities within the limits of Proposition 2 ½ by increasing the annual appropriation to the Capital Building Stabilization Fund (CBSF) which was established by the Town at the Special Town Meeting of April 11, 2011 for the purpose of "…debt service payments for Capital Building Projects." This plan has three major components:

1. Continue the annual $400,000 appropriation with annual 2 ½% increases;
2. Utilize the drop off in debt payments for the Town Hall and Library as an additional appropriation to the CBSF; and,
3. Commit an allocation of personal property "new growth" taxes to the CBSF.

The project team has closely reviewed the Town's existing debt schedule, the projected debt level for new fire and police facilities, and compared them to the projected funding plan and has found that the proposed funding strategy can cover the costs of the new facilities while maintaining conservative capacity for other operating budget needs.

PROPOSED SITING FOR FIRE AND POLICE FACILITIES

METHODOLOGY

Over several years, considerable analysis has been done into the space needs of the Town of Carver's fire and police departments, leading to the development of the current proposal under review. The project team has reviewed the work that had been prepared to date and has undertaken its own analysis.

Materials reviewed include, among others:

- Current Station Conditions report from Carver Fire Department to Town Administrator, 2006;
- Police and Fire Station Study Committee presentation, 2006;
- Carver Fire Department current station presentation, 2007;
- Preliminary space needs analysis and schematic plans prepared by Reinhart Associates (2009 and 2010); and,
- Probable estimate of project costs prepared by Reinhart Associates (updated September 2013).

The Fire Chief and Police Chief hosted tours of their facilities in early October and the Fire Chief took one of the project team members on a tour of the existing training facilities and a site visit to the Town-owned property adjacent to the Town library, one of the sites previously under consideration.

BACKGROUND

At present, the Central Fire Station and the Police Headquarters are co-located at 112 Main Street (also known as Route 58). The front portion of the building, used by the Fire Department, was built in 1957, and an addition was built in 1978 to provide for the Police Headquarters along with additional bay space for fire apparatus. The Fire Department currently operates three stations, with the one at 112 Main Street also serving as the department headquarters due to its central location.

The Town of Carver is served by an "on call" fire department in which firefighters serve voluntarily and they are only paid for the hours they work responding to emergencies or participating in training or other activities. This model is becoming increasingly unique in the south coast of Massachusetts as other towns hire "full time"[1] firefighters that serve 24 hours per day, 7 days per week at a substantial cost. In Carver, only the chief, deputy chief, and dispatcher are paid on a full time basis. Aside from those three positions and the part time dispatchers that work on the weekend, the majority of the

[1] The term "full time" is merely being used to distinguish between an on-call or volunteer department and a department where the firefighters work regular shifts and are salaried and benefitted.

Department consists of firefighters who respond to emergency calls and are paid just over $15 per hour for the time worked. Across all three stations, the Department maintains a roster of approximately 75 firefighters. Firefighters in Carver respond to an array of different potential environments. In addition to residential and commercial structures and car accidents and car fires, the Department must also respond to water emergencies given that 50% of the town's land area is water or wetland and to forest fires within the community and in 15,000 acre Myles Standish State Forest. Carver firefighters also support neighboring communities through mutual aid agreements, just as the Town would receive support from other communities if it was in need.

When a fire call comes in, firefighters are notified on Department-issued fire pagers and phones and they indicate electronically whether they are available to respond. If available, they must quickly drive to the station, park their cars, and put on their protective equipment so that the fire truck can leave the station. The Chief reports that even though Carver firefighters have the added challenge of getting to the station, they are able to respond to calls with an average 5.7 minute response time.[2] This compares very favorably to the 13 minute average response time for volunteer departments and rivals the National Fire Protection Association's 6.0 minute response time standard for professional fire departments. The Fire Department budget in Carver is approximately $460,000 this fiscal year, markedly lower than other communities due to the on-call system that has survived in town even as other communities have converted to full time staffing. In Duxbury, for example, the annual fire department FY2014 budget exceeds $2.8 million. According to the Boston Globe, spending per capita on fire services is $29 per year, making Carver the 256th lowest spending community out of 340 communities studied.[3]

In FY2014, the Police Department is budgeted for 14 sworn officers including one chief, four sergeants, and 10 officers. Patrol staffing consists of a minimum of two officers, or one officer and one sergeant, on the road per shift and the Police Chief reports that scheduling is challenging since two officers are currently on medical leave, leaving only 9 patrol officers to cover all shifts (one additional officer serves as the court officer and works out of the station instead of on patrol). Of the four sergeants, three supervise the patrol shifts and one serves as the administrative sergeant. A total of nine (9) non-sworn staff also work for the Department, five of whom work full time and four who serve part time. The non-sworn staff include dispatchers and administrative staff.

The proposal under consideration by the Board of Selectmen and Town Meeting is to build a new Central Fire Station at 99 Main Street, presently the location of the Fire Department's training facilities, while also building new training facilities on the same site. Then, once the existing Fire Station has been vacated, it will be demolished and a new Police Headquarters built in its place. The rear part of the existing building, currently occupied by the Police Department, will be renovated for the Department's use after the front portion of the building has been made ready for occupancy.

Cost estimates for design and construction as of September 2013 are as follows:

- Central Fire Station / Headquarters - $8,169,700;

[2] Interview with Chief Craig Weston, October 2, 2013.
[3] Boston Globe, "Deadly Delays: The Decline of Fire Response", 2005, retrieved from http://www.boston.com/news/special/fires/rankings/percap.html, November 1, 2013

- Fire training facility - $578,000+; and,
- Police Headquarters - $7,510,700 (based on an FY2017 construction start).

Each of the cost estimates includes a 10% design contingency and a 5% construction contingency. The estimates for the Police and Fire Stations also include allowances for furniture, fixtures, and equipment. The training facility cost estimate lists a series of accessory options ranging from $1,000 to $14,000 that are not included in the figure above.

FINDINGS

The project team has analyzed whether new public safety facilities are warranted and whether the proposed sites are optimal for the proposed uses or if other sites should be considered. The project team also considered how these facilities will influence the character of Carver center and the opportunity for economic development in the area.

The project team offers the following findings:

1. **The current facilities do not meet the needs of a modern day fire department or police department. Specific inadequacies include:**

    a) *The apparatus bays and storage areas at the Central Fire Station were not built for the fire trucks and firefighting equipment commonly in use today. In addition, rapid egress out of two of the bays in response to an emergency can be negatively impacted by parking for the adjacent ball fields*.

Chevrolet, 10500 Fire Truck (1957)

Since the Central Fire Station was built, the field of firefighting has been transformed for the better by the advent of new, better equipped, and larger trucks, more specialized rescue vehicles, and vastly improved protective equipment. To extend the lifetime of this costly equipment, each of these must be cleaned and stored appropriately. At the same time, it must be immediately accessible during a fire or other type of emergency. The Carver Fire Department faces significant challenges in its existing space.

The existing Central Fire Station has six apparatus bays, two of which are located in the original section of the building and four of which are in the addition built in 1978. Of the four bays in the addition, two open to the front to the building and two open to the rear. The Department reports that having the bays on opposite sides of the buildings "makes response very difficult and means firefighters need to travel through public areas including the Dispatch Area to respond to calls".[4] In addition, the fire trucks that exit the two bays that open toward the Town athletic fields at times have to contend with private vehicles parked in the area. These vehicles not only narrow the access drive to the ball fields, but if not

[4] Carver Fire Department, Report to the Town Administrator on Current Station Conditions, 2006, p. 2.

parked properly can reduce area available for the fire trucks to exit and make a U-turn to head out to Route 58. If a fire truck has to make multiple turning movements to exit or if people must be called to move their car(s), valuable time can be lost in response to an emergency.

Another issue is the limited space available for equipment storage. The firefighters have attempted to address this by building tiered and loft-style storage areas for materials that cannot fit elsewhere in the building, but a lot of items still remain on the floors within the apparatus bays. The National Institute of Building Science's "Whole Building Design Guideline" for fire stations speaks to the importance of the design of apparatus bays and how they should be sized:

> Sizing the apparatus bay is critical, and it should be designed to accommodate variable vehicle sizes. Typically, the entire room is sized based on the bay size for the largest vehicle in the fleet or the largest anticipated vehicle. Bays also include vehicle exhaust removal systems, compressed air and power drop lines, and hot and cold water connections. Bay doors must also accommodate the largest vehicle and include a manual means to open in case of power failure. Ideally, the site will accommodate drive-through bays.[5]

Carver: Brushbreaker 27

Other issues noted by the Department include the vertical support columns in the older bays where firefighters are trying to move around when accessing apparatus. These columns have been padded to reduce the potential for injury, but in newer buildings, the roof weight is transferred to the outside frame so that internal structural members are not needed, i.e., the entire bay space is open for movement.

b) The Central Fire Station does not meet the current operating needs of the Department.

Chief Weston eloquently argues that in an on-call fire department, regular training and department-wide meetings are even more important than in a full time fire department, a position seconded by Massachusetts State Fire Marshal Stephen Coan. This is due to the fact that the firefighters do not routinely work together on a 24-hour shift, as full time firefighters do, and yet they must operate collaboratively and efficiently in response to an emergency. However, when meetings are held in the existing Fire Station, not everyone can fit into the large conference room. Instead, firefighters routinely sit in the hallway outside the room or in the adjacent kitchen area and attempt to hear what the trainer has to say. Adding to this space challenge is the fact that the Department operates in a very collaborative manner where teams come together to design new fire apparatus or have after-action meetings to discuss response to recent calls for service. As a result, the Department requires space where such gatherings can take place.

A second issue is that the existing building is completely ill-equipped to accommodate a team of male

[5] National Institute of Building Sciences, Fire Station Design Guidance, retrieved at http://www.wbdg.org/design/firestation.php on September 23, 2013.

and female firefighters. At present, the Fire Station only has one shower stall which can be found in a bathroom together with a sink and two toilet stalls. In order to offer privacy to someone using the bathroom, the Department has adopted informal procedures so that others do not enter, but this means that when an entire crew comes back to the station after a call, they have to take turns using the bathroom. In addition, the station only has one sleeping room available with four bunk beds where firefighters can get rest during threatened storm events or extended incidents, even though a full crew would include a minimum of seven firefighters.

Space to remove and clean potentially contaminated personal protective equipment (PPE) is also limited. Being able to safely clean the equipment after responding to a fire is critically important given the many gases, chemicals, human feces, and blood borne pathogens to which the firefighters may have been exposed and their potentially carcinogenic nature. The International Labor Organization offers a long list of potential contaminants as follows:

> Fire-fighters on the scene of a fire are frequently exposed to carbon monoxide, hydrogen cyanide, nitrogen dioxide, sulphur dioxide, hydrogen chloride, aldehydes and organic compounds such as benzene... Light-molecular-weight hydrocarbons, aldehydes (such as formaldehyde) and organic acids may be formed when hydrocarbon fuels burn at lower temperatures. The oxides of nitrogen are also formed in quantity when temperatures are high, as a consequence of the oxidation of atmospheric nitrogen, and in lower temperature fires where the fuel contains significant nitrogen. When the fuel contains chlorine, hydrogen chloride is formed. Polymeric plastic materials pose particular hazards. These synthetic materials were introduced into building construction and furnishings in the 1950s and thereafter. They combust into particularly hazardous products. Acrolein, formaldehyde and volatile fatty acids are common in smouldering fires of several polymers, including polyethylene and natural cellulose. Cyanide levels increase with temperature when polyurethane or polyacrylonitriles are burned; acrylonitrile, acetonitrile pyridine and benzonitrile occur in quantity above 800 but below 1,000 C. Polyvinyl chloride has been proposed as a desirable polymer for furnishings because of its self-extinguishing characteristics due to the high chlorine content. Unfortunately, the material produces large quantities of hydrochloric acid and, sometimes, dioxins when fires are prolonged. Synthetic materials are most dangerous during smouldering conditions, not in conditions of high heat. Concrete retains heat very efficiently and may act as a "sponge" for trapped gases that are then released from the porous material, releasing hydrogen chloride or other toxic fumes long after a fire has been extinguished.[6]

In Carver, the Department has modified the building's plumbing system to install a makeshift decontamination area with a sink and a washing machine in back of station.

Newer fire stations have clearly designated male and female bathrooms or gender-neutral bathrooms. In addition, large dorm rooms are being replaced with smaller rooms that contain one or two beds. This not only provides more privacy, it also allows people to sleep in shifts and not be woken up as often when others either arise or get ready to go to sleep. The National Fire Protection Association's (NFPA) has established a standard of 60 square feet of floor space per bed. Based on the project team's site

[6] Guidotti, Lee, International Labor Organization, Firefighting Hazards, retrieved at http://www.ilo.org/safework_bookshelf/english?content&nd=857171121, October 27, 2013.

visit, it does not appear that space exists in the current station to modernize the sleeping arrangements in compliance with NFPA standards. In addition, the NFPA specifically requires that protective equipment be kept outside of sleeping and living areas. As a result, most fire stations have a room or designated area built for the purpose of cleaning and storing equipment.

An additional component that is found in modern fire stations, but is completely absent in the Central Fire Station in Carver is space for athletic equipment. In other departments where firefighters work 24 hour shifts, having space to work out is absolutely essential to keep them in shape and therefore able to do the physical work they do. In Carver, while it could be argued that since the firefighters do not live at the station for days at a time, athletic equipment is not necessary, the opposite could be argued as well. The argument in favor of fitness equipment would the that, since most, if not all, of the firefighters have other jobs in addition to working for the Department, they may have limited time in their schedules to set aside to maintain their fitness. By having such equipment at the Central Station, it could encourage firefighters to work out regularly, while also contributing to a team environment. A secondary benefit to the general public would be having firefighters immediately on site in the event of an emergency as opposed to having them at a gym located elsewhere in town.

Although building systems, such as electrical, water, heating/cooling, roof, etc. were not evaluated by the project team, Department correspondence and presentations describe the following issues:

- The electrical panel and wiring is original to the building, with some electrical work having been done by firefighters;
- Continuous roof problems exist, with leaks, deterioration, and rust holes appearing;
- Some station windows rattle, leak, and are deteriorated beyond repair;
- The heating system is original to the 1957 section of the building (the 1979 portion was upgraded in 2005); and,
- The majority of the building has no air conditioning (the dispatch, chief's and deputy chief's offices, and lobby have air conditioning; all of the second floor and meeting areas do not).

c) The existing firefighter Training Center is an important element to the Department's operation and helps ensure that Carver firefighters are highly trained.

Stephen Coan, Massachusetts State Fire Marshall, believes that the Carver Fire Department's commitment to ongoing training not only keeps the firefighters skills current, it also is one of the reasons Carver's on call department is such a success in an era when other departments are converting to fulltime staffing. He points out that while classroom training is important, most of the skills needed cannot be learned "within the four corners of a classroom". Those skills have to be taught in a training facility, especially in a facility that has burn capability. "Firefighters must be able to put on a mask and other protective equipment, feel the heat of a fire, perform search and rescue, and engage in fire suppression." Fire Marshal Coan believes that regular training also keeps the firefighters engaged with the department and contributes to their strong sense of commitment to the Town.[7]

Massachusetts currently has one training facility in Stow, located 1 hour and 15 minutes away from

[7] Interview with Stephen Coan, Massachusetts State Fire Marshall, October 23, 2013.

Carver, and another is under construction in Springfield. This is a large distance for individuals who are volunteering for the Carver Fire Department to travel in order to attend training. In addition, if an entire crew had to travel such a distance, it would add to the cost of the training and reduce the number of firefighters in town available to respond to an emergency. A secondary added benefit of having a local training facility is that other communities in southern Massachusetts come to Carver at times for trainings. This helps build a stronger network of departments in the area who support each other through mutual aid.

The project team finds that having a fire training facility in town, is a cost effective way to keep a motivated and highly trained firefighting force in Carver.

d) The layout of the existing Police Station is substandard and the building is poorly maintained.

A police station is a facility that is commonly visited by members of the general public. In fact, a police station is likely to be one of the most-visited non-school facilities, after town hall and the public library, and its very presence can contribute positively to a community's sense of safety. It is also a building that has to be highly functional and safe for the personnel that work there, visitors, and even prisoners that are on site on a temporary basis. Further, appropriate storage and maintenance of records and evidence is vitally important given that failure to store materials properly can influence the outcome of a court case.

The project team found the Carver Police Station to be poorly maintained and not well laid out to meet the operational needs of a modern department. The 2006 Police / Fire Station Study Committee outlined some of the Police Station's deficits found at that time as follows:

- Operational: lack of evidence deposit, storage and control; lack of weapons storage; lack of fire proof, water proof records storage area; lack of vehicle storage for evidence; lack of adequate kitchen and break rooms; limited secure storage for office supplies; wires exposed; no heat or AC in roll call room; no audio video equipment to use for roll call training; no facilities to wash or clean patrol vehicles;
- Communications Section: no heat or AC controls; lighting problems; lack of ergonomic work place designs; inability to monitor people coming and going; lack of sufficient break area;
- Holding Facilities: no sally port for unload or loading prisoners; no decontamination area; no fire protection in booking or cell areas; no prisoner holding rooms prior to booking; no means of egress from cells should a fire or emergency occur; and,
- Lack of Personal Amenities: unsatisfactory shower facilities for male and female officers; inadequate male and female locker rooms; lack of proper HVAC unit; lack of physical fitness room.

The site visit made in September 2013 by a member of the project team did not reveal any significant changes that would address the issues identified above, and it is difficult to adequately describe just how poor the conditions in the building are. It should perhaps suffice to say that the project team saw the officers' and support staff's willingness to work in such a building as testimony to their commitment to the Carver community.

e) Neither the Police Station nor the Fire Station provide space that is appropriately designed and climate-controlled for the storage for servers and other electronic equipment, likely reducing

their usable lifetime and potentially resulting in the loss of important data.

The Town has invested in critically important technology equipment for both departments, yet existing storage is inadequate, likely diminishing the useable lifetime of at least some of the equipment. In the Fire Station, some computer equipment is stored in cabinets in the Chief's office with no ventilation unless the cabinet doors are kept open. Other computer equipment is located in the fire dispatch area, and the Department's radio system can be found at the foot of the former hose drying tower where it must be covered over by a tarp during a rainstorm because the roof leaks. In the Police Station, multiple servers are housed in a closet where the temperature can rise to well over 80 degrees and ventilation is inadequate due to the fact that the room was not built for that purpose. In addition, the back of the computer and radio equipment used by the dispatcher "welcomes" visitors into the Police Station, i.e., visitors entering the Police Station finds themselves facing a part plexiglas, part metal wall behind which the dispatcher sits. The metal portion has slots in it like the back of a PC to allow warm air to flow out.

Although recommendations for the allowable temperature and humidity ranges for server rooms vary, according to IBM, "The optimum condition is where the room is at the design criteria of 22 degrees C (71.6 degrees F) and 45 percent humidity" and "Under no circumstances may the server's input air, room air, or humidity exceed the upper limit of the operating conditions."[8] According to other sources, even a few degrees difference from optimal conditions can blow a server chip, which at a minimum will result in lost time and lost public dollars. Perhaps more serious for Carver is the potential to lose public safety data as a result of inadequate storage.

f) Spaces that could be reasonably accessed by members of the public and non-sworn staff are not ADA compliant.

With the advent of community policing, it has been recognized that a key crime fighting strategy is building collaborative relationships with community members. For many departments, this includes inviting groups to use the police station for meetings or trainings. In Carver, this is not feasible since there is no meeting room in which the public can gather. In addition, should a member of the public need to be brought into the station, in order to be interviewed in private, for example, they cannot enter except by going into and through a private office that has a door directly onto the reception area. Not only is this highly atypical, but it is unclear whether a wheelchair would be able to maneuver through the space without perhaps lifting up and moving the desk that is in the room.

The Police Station reception area itself is also very off-putting, with the dispatcher sitting behind a metal and plexiglas wall, and with only one chair for members of the public to sit (the second chair was removed to make space for a container for medical needle disposal). In addition, there also is no electronic key system that separates the public and private areas of the building for the safety of staff. In contemporary police stations, there are typically spaces for community groups to meet, whether they are meeting with police officials or not, and space for customers, such as people seeking public records or event permits, to sit and wait until someone is available to see them. Compliance with ADA requirements is imperative for visitors and non-sworn staff of the department.

[8] Retrieved at http://pic.dhe.ibm.com/infocenter/powersys/v3r1m5/index.jsp?topic=%2Fiphad_p5%2Ftempandhumiditydesign.html, October 22, 2013.

While the entrance into the Fire Station is markedly more hospitable than that of the Police Station, there is also no ADA compliant space in the building where multiple members of the public could gather outside of the Chief's office itself.

3. Of the sites under consideration, 99 Main Street offers the best available location for the new Fire Station and Training Facility and the existing site at 112 Main Street for the Police Station.

The Police/Fire Station Study Committee in 2006 evaluated three sites for the public safety facilities. These included the existing location at 112 Main Street, the property adjacent to the Library (hereinafter referred to as the "Center Street" property[9]), and 99 Main Street, the location of the existing fire training center. The project team reviewed these properties in addition to a listing of other Town-owned property. An important locational criteria for both departments is to be centrally located and remain on the Main Street north-south corridor in order to be able to rapidly respond to emergencies anywhere in town.

The project team finds that rebuilding the Fire Station at the existing location would present significant challenges during demolition and construction, and does not offer a building footprint or site plan that would really meet the Fire Department's operational needs. The combined police and fire facility with its associated parking takes up approximately 45,000 square feet of the current site which also includes Town Hall and an adjacent building used by the EMS Department and for storage. As noted above, two of the bays open to the rear of the building where they face the gas pumping station and sometimes compete for space with parents taking their children to the nearby ball fields. In the design of the new station, the apparatus bays and associated storage have a building dimension of 114 feet by 82.5 feet, offering space to park 10 vehicles. This excludes the space needed to pull the vehicles in and out, or to temporarily park them outside, which would add another approximately 80 feet for a total dimension of 114 feet by 162.5 feet. Although these dimensions could possibly be fit onto the existing site, they would require the demolition of the fire station and police station at the same time prior to construction of the new fire station, and fire vehicles would end up exiting and entering the bays not only in conflict with ball field users, but potentially with people visiting Town Hall (i.e., the bays would need to be perpendicular to Main Street pointing toward Town Hall and the Dandy Sandwich Shop, as opposed to parallel to Main Street the way they are today). In addition, there is limited space for the firefighters to park on the existing lot in event of an emergency or if they are coming to the Fire Station for training or other activity and this would not be improved. In contrast, the usable space on the parcel at 99 Main Street is approximately twice as large as the existing site and the Fire Department would be the only use on the site. If the police were to move to 99 Main Street, the site would be bigger than the Police Department needs and the Fire Department would remain on a site that was too small for its operation, especially given that the training functions would need to be relocated.

In addition, if the Fire Department was to stay at 112 Main Street, an interim location would need to be identified and outfitted for the Fire Department and the Police Department while their existing building was demolished and new ones built. This interim location would need to be large enough to accommodate all of the vehicles and equipment, provide space for the chiefs and dispatchers who need

[9] Although the parcel is addressed on Meadowbrook Way, any access point for a public safety facility would need to be off of Center Street.

to be centrally located in town, and offer enough parking space for the firefighters and police officers. Such a temporary relocation would add considerable cost to the project. In contrast, under the proposed plan, the Fire Department would only move one time and the Police Department would remain in its location until the new Police Station was ready for occupancy.

The Center Street Property, while a very large and attractive site, has considerable constraints that do not exist at the preferred site. First, anything to be built on that site will need to take into account the existence of Town wells on the property. According to Gerry Farquharson, Facilities Consultant, the property contains one active well and two other emergency wells that are not currently in use, but can be reactivated if needed. No permanent structures can be built within a 250 foot radius around the active well. This translates into approximately 4.5 acres of the site that must remain as open space. In addition, within the Interim Wellhead Protection Area, no fuel storage, chemical storage, etc. can occur. This is a 622 feet radius from the wellhead and it reflects the recharge area within which surface water is filtered into the aquifer. If chemicals were spilled in this area or leaked from an underground storage tank, they could potentially get into the aquifer.[10] These wells significantly constrain the potential uses of the Center Street site, particularly uses that require large paved surfaces or store/use chemicals. Another important concern with the Center Street property is the short sightlines that exist due to the road's curvature near the likely entrance/exit for any public safety facility. To allow emergency vehicles to exit from the property, one or more signal lights might be needed on Center Street.

The project team also reviewed list of Town-owned parcels, identifying three additional sites that were of the size needed by either the Fire or Police Departments. These include 109 Main Street, 149 Main Street, and the property around the high school either on South Meadow Road or Pond Street. While all three were large enough for either of the two facilities, none appeared to be better than the preferred location at 99 Main Street. The property at 109 Main Street is beautiful Shurtleff Park, located directly across the street from Town Hall. The two parcels owned by the Town at 149 Main Street (located opposite where South Meadow Road and Crescent Road hit Main Street) total approximately 153,800 square feet, however, they are largely, if not entirely, non-buildable because they are so wet. The high school campus and vicinity has a significant open land, but its location off of Main Street could negatively impact response times.

As a result of this review, the project team concurs that the site at 99 Main Street is the optimal location for the Central Fire Station and Fire Training Facility. It is on a parcel that is appropriate in size for the operation, has direct access onto Main Street for ease of access by firefighters, fire trucks and equipment, and members of the public coming to the station. Reusing the site of the existing Fire Station for the Police Headquarters then becomes a good use of publicly owned land. This site would not be attractive to development because it would be surrounded by Town Hall, the gas pumping island, and the ball fields, which get a lot of vehicle traffic.

The proposed capital investment in the two public safety stations will continue Town Center's role as a civic center for the Carver community with Town Hall, the Library, Police Station, and Fire Station in close proximity along the Main Street spine. It would give the Police Station greater visibility to those traveling on Main Street and would significantly improve the appearance of the site at 99 Main Street.

[10] Interview with Gerry Farquharson, Facilities Consultant, October 15, 2013.

SITING RECOMMENDATIONS

The Collins Center project team concurs with the recommendation of the Buildings Studies Committee, that if the Town seeks to build a new Central Fire Station and Police Station, the best locations are 99 Main Street for the Fire Station and 112 Main Street for the Police Station. The staging plan which involves constructing the Fire Station first and then the Police Station second will reduce costs by not requiring either department to move to an interim location while construction is taking place.

The project team has reviewed the concept plans of both stations in detail and also visited the existing stations and would like to offer the following considerations as the projects move into more detailed design:

1. **During the design phase, the Town should consider the need for the proposed community room / training room on the first floor of the new Fire Station.**

The proposed design for the new Fire Station appears to be quite attractive and functional, with a goal of meeting the Department's needs well into the future. The first floor of the new design includes: ten bays for fire trucks and other vehicles in an unobstructed area; a room to hold firefighter gear with a substantial storage area for equipment and an adjacent laundry and shower to make sure the protective equipment is removed quickly upon returning to the station and cleaned away from the sleeping areas; offices for the Chiefs and command staff; a dispatch room; a modest conference room; and a small gathering area. The second floor includes five small sleeping rooms that can contain 1-2 beds each; separate men's and women's bathrooms with showers and a washer-dryer room in between; a physical training room, a day room, and kitchen facilities.

The new design does, however, contain two large size gathering spaces – one on the first floor and one on the second floor. The second floor conference room, which is near the sleeping areas and main firefighter bathrooms will be used for training and other Department gatherings. The large room on the first floor will be available for trainings, but would also be open to the broader Carver community. This room, which as designed will be approximately 1,900 square feet in size would have a tiered floor – like a theater - but with space for tables and chairs on each tier. It would open directly onto the lobby of the station and public restrooms would be located adjacent to the room. This room would be made available to outside groups who could use the space for meetings or other events. While this building could be a very positive amenity for the Town, as the project is refined, discussion should be held about this investment as it is not strictly required for the operation of the Fire Department.

2. **The Town and Department should look closely at the design of the second floor to ensure that firefighters receive reasonable privacy for when they stay overnight at the station, especially if the building is being designed to include two gathering spaces.**

In the current design, the first floor training room is on one side of the building and the second floor meeting room is on the exact opposite side, i.e., the spaces are not stacked on top of each other. This means if someone is moving between the two gathering spaces, perhaps for a large event, they will pass by the bedrooms, showers, and other spaces that are designed to offer the firefighters some privacy. While this is still a tremendous improvement over current conditions, it could become an issue. Another aspect of this is that the second floor kitchen is far away from the first floor meeting room. If the

Department ever wants to have an event with food in the first floor training room, having the kitchen closer would make that easier.

3. As the design for the Police Station is refined, the public review process should offer an opportunity for the community to discuss police staffing needs.

As designed, the new Police Station will be a dramatic improvement over the station today. It will provide for prisoner handling facilities that will provide adequate space for the Chief and command staff to work; will offer a records window that opens onto the lobby allowing visitors to get records without coming into the building, will allow transport vehicles to be brought into the building instead of unloaded outside; will provide adequate locker room space and fitness room space for the officers to maintain their fitness levels; will provide an evidence room and space to store impounded vehicles; and will offer an attractive new façade onto Main Street. In addition, the building will include a modest sized meeting room / training room in the front of the building that can be accessed without entering the private areas of the station. This will provide opportunities for outside groups to meet with Department staff or just to have a meeting within the station. One minor design suggestion is that the front lobby should probably offer some type of seating to visitors, especially if the records window will open up onto the lobby.

In the new plan, a second floor is being included to accommodate future expansion needs. This is a result of a projected staffing and facility analysis prepared by Reinhardt Associates that considers police staffing needs forty years into the future in order to ensure that any new facility has a long effective lifespan. As John Reinhardt, project architect, explained to the project team, it will be more cost effective to incorporate future space into the new building that to add an addition in the future. In the analysis, Reinhardt Associates took into account projected population growth, projected increase in calls for service, and Bureau of Justice statistics on staffing per population (i.e., 2.0 officers per 1,000 population). Based on the Town's current population of 11,509 as of the 2010 Census, the Bureau of Justice figures suggest a sworn staff of 23 officers, however, Carver has a total of 14 positions today. This relates to building design in that the building should be sized for the workforce needs going forward.

4. If the Police Department is to remain in its existing station for a few more years, as is proposed, some modest investments in the space should be made to make it more habitable.

As the Police Department likely waits a few years for their new building, it is recommended that a few modest, short term improvements be made to the existing station. First, the heat in the server room should be addressed by installing a ductless air conditioning system to keep the heat down. This would improve the longevity of the equipment and reduce noise within the building as today the only way to keep the heat down is to leave the doors open, which negatively impacts the staff that sit nearby. Given that there is no heat or cooling in the roll call room another ductless system should be considered for this area. In addition, the reception area should be improved, both for the comfort of the dispatchers who occupy the space 24 hours per day year round and for visitors who come to the Police Station. At present, it is not a good environment for anyone.

In addition, even before the Fire Department is relocated, it may be prudent for the Town to stripe the existing parking lot to indicate where people visiting the ball fields should <u>not</u> park in order to ensure

that vehicles are not parked in the way of the fire trucks as they leave the site. The future site plan for the Police Station should also take ball field use into account because even though police cars are much more nimble than the fire trucks, they still may be leaving the property at high speeds in response to an emergency call and there will be children and families in the vicinity.

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PROPOSED FUNDING FOR FIRE AND POLICE FACILITIES

METHODOLOGY

The Town Buildings Study Committee ("the Committee") has developed a funding plan for the costs of the proposed new Central Fire Station and training facility and Police Station. The project team has received the "Probable Estimate of Project Costs" (attached Attachment A) for the new facilities prepared by Reinhardt Associates, originally dated December 14, 2010 and revised on September 16, 2013. The team has reviewed the funding plan developed by the Committee to determine its applicability to the projects under consideration, prepare estimated debt service costs alternatives, and provide recommendations on other alternate sources that could be sought, to the extent that they have not yet been considered by the Committee.

This section of the project's research consisted of:

1. Meetings and communications with the chair and other representatives of the Committee;
2. Meeting and communications with the Town Accountant and Town Treasurer;
3. Communications with the architect (Reinhardt Associates); the Financial Advisor (Unibank Fiscal Advisory Services, Inc.), and Bond Counsel (Edwards Wildman Palmer LLP);
4. Review of existing debt service schedule, tax growth from personal property taxes, capital stabilization fund and other relevant documents;
5. Preparation of alternative debt service cost projections; and,
6. Analysis of funding plan and preparation of suggested steps to implement plan

BACKGROUND

The Committee proposes to gain approval of a plan to fund the new Fire and Police facilities within the limits of Proposition 2 ½ and receive Town Meeting appropriation and authorization to issue debt for the $8,750,000 to design and construct the new Fire Headquarters at this fall's Special Town Meeting, and at a future town meeting, to fund $7,510,000 for the new Police Headquarters. The Committee has proposed increasing the annual appropriation to the Capital Building Stabilization Fund (CBSF) which was established by the Town at the Special Town Meeting of April 11, 2011 for the purpose of " …debt service payments for Capital Building Projects." This plan has three major components:

4. Continue the annual $400,000 appropriation with annual 2 ½% increases;
5. Utilize the drop off in debt payments for the Town Hall and Library as an additional appropriation to the CBSF; and,
6. Commit an allocation of personal property "new growth" taxes to the CBSF.

Capital Building Stabilization Fund

By vote of the April 11, 2011 Special Town Meeting, the Town's Capital Building Stabilization Fund was established for the "purpose of debt service payments for Capital Building Projects". This fund has received appropriations from the tax levy as follows:

- FY2011 $1;
- FY2012 $80,000;
- FY2013 $100,000; and,
- FY2014 $400,000.

The fund is invested and earned interest is added to the fund balance. As of July 1, 2013, the fund balance, excluding earned interest, is $580,001.

The Committee is proposing that the Board of Selectmen support that the funding commitment made for FY2014 ($400,000) from the tax levy be continued into the future. Appropriations into and from the CBSF requires a 2/3 vote.

Debt Service Schedule

The Town Treasurer provided the project team with the most current Town debt schedule. This schedule details the Town's current obligations to make appropriations in each fiscal year for principal and interest costs associated with projects that were funded by borrowing. Over time, as debt is paid, the appropriation for debt service cost decreases. The Committee is recommending that the annual cumulative drop off in debt service costs for the Town Hall and Library be appropriated to the CPSF. Therefore, by FY2018, a total amount of $278,561 would be available. Table 6: Projected Funding Plan details the amount that is available by year with the decrease in town hall/library debt.

Below is a summary of the current debt schedule

Table 1: Existing Debt Service Schedule Thru FY2030

Fiscal Year	Town Hall / Library	Land Acquisition*	N. Carver Water Dist	N. Carver Water Dist	N. Carver Water Dist**	Title V Septic Syst	Total Debt Svc
FY2014	278,561	113,080	25,250	86,836	144,420	11,101	659,248
FY2015	267,418	109,810	25,250	86,836	144,420	11,101	644,835
FY2016	254,374	106,540	25,250	86,836	144,420	11,101	628,521
FY2017	173,494	103,270	122,500	86,836	144,420	11,101	641,621
FY2018			116,875	86,836	144,420		348,131
FY2019			111,000	86,836	144,420		342,256
FY2020			106,000	86,836	144,420		337,256
FY2021			102,000	86,836	144,420		333,256
FY2022				86,836	144,420		231,256
FY2023				86,836	144,420		231,256
FY2024				86,836	144,420		231,256
FY2025				86,836	144,420		231,256

FY2026				86,836	144,420		231,256
FY2027				86,836	144,420		231,256
FY2028				86,836	144,420		231,256
FY2029				86,836	144,420		231,256
FY2030				86,836	144,420		231,256

*Debt service paid by Community Preservation (CPA) funds

**Federal Recovery Zone Economic Development Bonds eligible for annual 45% interest subsidy

***Title V Septic System loan—Massachusetts Water Pollution Abatement Trust

New Growth Tax History

A component of the Committee's financing plan is to commit, with agreement by the Board of Selectmen, an annual amount of new property taxes from the "new growth" attributed to personal property. Each year, assessors across Massachusetts receive information from property owners detailing new equipment and furnishings that are subject to the personal property tax and the Board of Assessors calculates the amount that is considered "Personal Property New Growth" that can be raised within the limits of Proposition 2 ½.

The Town Assessor has provided the project team with a history of the annual amount raised as new growth from FY2000 to FY2013. The Committee is proposing that an amount of the new tax levy revenues attributed to the increase in Personal Property tax growth be used as a funding source for debt service costs**.** For purposes of this review, the project team has used $55,688, which is the annual average growth over this period after the one-time increase in FY2011 is removed.

Table 2: New Property Tax Growth History

Fiscal Year	Real Estate Property New Growth	Personal Property New Growth	Total New Growth
2013	67,812	107,381	175,193
2012	81,359	65,721	147,080
2011	50,942	732,558	783,500
2010	82,434	47,578	130,012
2009	109,568	123,935	233,503
2008	250,547	88,063	338,610
2007	416,281	16,680	432,961
2006	281,440	41,065	322,505
2005	350,237	108,074	458,311
2004	171,765	18,230	189,995
2003	115,480	60,340	175,820
2002	107,906	3,980	111,886
2001	149,966	19,837	169,803
2000	194,749	23,061	217,810
Avg. (excl. FY2011)	**183,042**	**55,688**	**239,090**

Pursuant to Proposition 2 ½, the annual increase in new growth taxes is added to the levy limit base the fiscal year after the new growth has occurred. As a result, the total tax levy base increases each year by this amount of new growth plus the annual 2½ tax levy increase allowed by Proposition 2 1/2. Using the average of $55,688 and the allowable 2 ½% per year increase in the base, the below table projects the amount of property tax by year that would be available to offset debt service costs as recommended by the Committee. Table 6 Projected Funding Plan includes this tax levy amount in the Tax Levy Additional Allocation column.

Table 3: Annual Amount of Tax Levy Allocated to Capital Building Stabilization Fund (as proposed)

Fiscal Year	FY00-13 Avg PP New Growth	Proj. Cumulative Increase in Levy Limit
2015	55,688	55,688
2016	55,688	112,768
2017	55,688	171,275
2018	55,688	231,245
2019	55,688	292,714
2020	55,688	355,720
2021	55,688	420,301
2022	55,688	486,497
2023	55,688	554,347
2024	55,688	623,894
2025	55,688	695,179
2026	55,688	768,247
2027	55,688	843,141
2028	55,688	919,907
2029	55,688	998,593
2030	55,688	1,079,246

Debt Service Cost Projections

The project team received the "Probable Estimate of Project Costs" from Reinhardt Associates, the architect for the fire and police stations. The architect adjusted the estimated cost for the Police Station based upon a projected 2017 Town Meeting authorization date. It should be understood that these project costs and debt service payments are only estimates and are subject to bid awards, interest rates, and borrowing amounts at time of bond issue.

The Town's financial advisor, Unibank, has prepared a number of different borrowing examples. These examples show projections for level debt and level principal. As requested by the Town Treasurer, all schedules are based on a 25 year bond issue. Actual debt service costs will depend upon the amount of the bond issues, the structure of the bond issue and the interest rates

The goal of the Committee has been to develop a financing plan that structures the debt service and other fiscal policies to fund the fire and police facilities within the limits of Proposition 2½. The detailed estimates are attached to this report. The below tables provide a summary of these estimated debt

service costs.

Table 4: Estimated Level Debt for Fire & Police			
Fiscal Year	**Fire Station ($8.7 mil Level Debt)**	**Police Station ($7.5 mil Level Debt)**	**Total Estimated**
2015	184,875		184,875
2016	584,750		584,750
2017	585,613		585,613
2018	586,050	168,750	754,800
2019	586,063	517,500	1,103,563
2020	585,650	514,400	1,100,050
2021	584,813	516,075	1,100,888
2022	583,550	517,300	1,100,850
2023	586,863	518,075	1,104,938
2024	584,538	518,400	1,102,938
2025	586,788	518,275	1,105,063
2026	583,400	517,700	1,101,100
2027	584,588	516,675	1,101,263
2028	585,138	515,200	1,100,338
2029	585,050	518,275	1,103,325
2030	584,325	515,675	1,100,000
Total Debt incl later years	**14,231,587**	**12,589,950**	**26,821,537**

Table 5: Estimated Level Principal for Fire & Police			
Fiscal Year	**Fire Station ($8.7 mil Level Principal)**	**Police Station ($7.5 mil Level Principal)**	**Total Estimated**
2015	174,000		174,000
2016	713,000		713,000
2017	698,400		698,400
2018	683,800	159,375	843,175
2019	669,200	633,750	1,302,950
2020	654,600	620,363	1,274,963
2021	640,000	606,975	1,246,975
2022	625,400	593,588	1,218,988
2023	610,800	580,200	1,191,000
2024	596,200	566,813	1,163,013
2025	581,600	553,425	1,135,025
2026	567,000	540,038	1,107,038
2027	552,400	526,650	1,079,050
2028	532,800	513,263	1,046,063
2029	518,400	499,875	1,018,275
2030	504,000	486,488	990,488
Total Debt incl later years	**13,209,600**	**11,628,450**	**24,838,050**

Funding Plan and Implementation Steps

The Town Buildings Study Committee's funding plan involves the following steps:

1. Submit warrant article for the special town meeting in November to authorize borrowing and appropriate the sum of $8,750,000 for the purposes of constructing a Central Fire Station/Training Facility;
2. Plan for a warrant article in FY2017 to authorize borrowing and appropriate the sum of $7,500,000 (based on current estimates) for the purpose of renovating the existing combined police/fire facility into a Police Headquarters;
3. Present funding plan for both projects within the limits of Proposition 2 ½; and,
4. Gain Board of Selectmen and Finance Committee support for an ongoing Town Meeting appropriation and funding plan that allocates funds from the tax levy to the Capital Building Stabilization Fund annually to be used to offset future debt service payments for the fire and police projects
5. Each year, work with Town Administrator, Board of Selectmen and Finance Committee to submit warrant articles that appropriate funds to and from the Capital Projects stabilization Fund based upon required debt service costs..

The next table summarizes the amount of funds that could annually be appropriated to the Capital Building Stabilization Fund based upon the funding plan proposed by the Committee:

Table 6: Projected Funding Plan

Fiscal Year	Decrease in Town Hall / Library Debt Service	CBSF On-Going Contribution at 2/1/2 % Inc	Tax Levy Additional Allocation	Total Funds Available for Approp to CBSF Debt Service
2015	11,143	410,000	$55,688	476,831
2016	24,187	420,250	$112,768	557,205
2017	105,067	430,756	$171,275	707,098
2018	248,561	441,525	$231,245	921,331
2019	248,561	452,563	$292,714	993,838
2020	248,561	463,877	$355,720	1,068,158
2021	248,561	475,474	$420,301	1,144,336
2022	248,561	487,361	$486,497	1,222,419
2023	248,561	499,545	$554,347	1,302,453
2024	248,561	512,034	$623,894	1,384,489
2025	248,561	524,835	$695,179	1,468,575
2026	248,561	537,954	$768,247	1,554,764
2027	248,561	551,404	843,141	1,643,106
2028	248,561	565,190	919,907	1,733,658
2029	248,561	579,319	998,593	1,836,473
2030	248,561	593,802	1,079,246	1,921,609

Comparison of Debt Service to Estimated Capital Building Stabilization Funds

The final step in the project team's analysis was to compare estimated debt service costs to the amount of funds that would be available to pay for the future debt service costs. Below are tables that summarize the amounts that would be appropriated to the CBSF and the amount that would be appropriated from the CBSF to pay for the estimated debt service costs for the level-debt or level principal examples provided by Unibank.

Table 7: Level Debt and Capital Building Stabilization Fund Use

Fiscal Year	Stabilization Fund Appropriation	Appropriation from CBSF for Level Debt	Balance remaining in CBSF
2014*	580,001		580,001
2015	476,831	184,875	871,957
2016	557,205	584,750	844,412
2017	707,098	585,613	965,897
2018	931,331	754,800	1,142,428
2019	993,838	1,103,563	1,032,703
2020	1,068,158	1,100,050	1,000,811
2021	1,144,336	1,100,888	1,044,259
2022	1,222,419	1,100,850	1,165,828
2023	1,302,453	1,104,938	1,363,343
2024	1,384,489	1,102,938	1,644,894
2025	1,468,575	1,105,063	2,008,406
2026	1,554,764	1,101,100	2,462,070
2027	1,643,106	1,101,263	3,003,913
2028	1,733,658	1,100,338	3,637,233
2029	1,826,473	1,103,325	4,360,381
2030	1,921,609	1,100,000	5,181,990

Table 8: Level Principal and Capital Building Stabilization Fund Use

Fiscal Year	Stabilization Fund Appropriation	Transfer from CBSF for Level Principal	Balance remaining in CBSF
2014*	580,001		580,001
2015	476,831	174,000	882,832
2016	557,205	713,000	727,037
2017	707,098	698,400	735,735
2018	931,331	843,175	823,891
2019	993,838	1,302,950	514,779
2020	1,068,158	1,274,963	307,974
2021	1,144,336	1,246,975	205,335
2022	1,222,419	1,218,988	208,766
2023	1,302,453	1,191,000	320,219
2024	1,384,489	1,163,013	541,695
2025	1,468,575	1,135,025	875,245
2026	1,554,764	1,107,038	1,322,971

2027	1,643,106	1,079,050	1,887,027
2028	1,733,658	1,046,063	2,574,622
2029	1,826,473	1,018,275	3,382,820
2030	1,921,609	990,488	4,313,941

*The amount in 2014 is balance as of July 1, 2013 including April 2013 Town Meeting vote (excluding accumulated interest).

In both examples, the funding plan is able to cover the projected debt service costs while building a significant balance to fund future capital projects' debt service costs.

Tax Levy Limit and Impact on Tax Levy Available for Operating Budgets and Other Commitments

This study also includes a review of the financial impact of allocating property tax dollars among capital projects, operating budgets, and other obligations. The project team began this analysis with a projection of the tax levy limit for future years using the average new growth amount of $238,730 as reported by the Assessor and included in this document. This amount is used for illustrative purposes only. The new growth amount fluctuates significantly and will be affected by any significant increase in building renovations and new construction. The result of this analysis shows that this funding plan, after providing funds for debt service costs associated with the Fire and Police facilities, allows for a stable, conservative increase in funds available for other operating budget costs.

Table 9: Tax Levy Limit - Allocation of Dollars between CBSF and Operating Budgets

Fiscal Year	Beginning Tax Levy Limit from prior year	Prop 2 1/2 Base Increase	New Growth Avg FY2000-FY2013	Ending Levy Limit	Tax Levy Appropriated to CBSF	Net Tax Available for Operating Budget	Increase Available for Operating Budget ($)	Increase Available for Operating Budget (%)
2014	19,142,608	478,565	238,730	19,861,917	400,000	19,461,917		
2015	19,861,917	496,548	238,730	20,599,210	476,831	20,122,379	660,462	3.4%
2016	20,599,210	514,980	238,730	21,354,936	557,205	20,797,731	675,352	3.4%
2017	21,354,936	533,873	238,730	22,129,557	707,098	21,422,459	624,727	3.0%
2018	22,129,557	553,239	238,730	22,923,544	931,331	21,992,213	569,754	2.7%
2019	22,923,544	573,089	238,730	23,737,381	993,838	22,743,543	751,331	3.4%
2020	23,737,381	593,435	238,730	24,571,566	1,068,158	23,503,408	759,865	3.3%
2021	24,571,566	614,289	238,730	25,426,606	1,144,336	24,282,270	778,862	3.3%
2022	25,426,606	635,665	238,730	26,303,023	1,222,419	25,080,604	798,334	3.3%
2023	26,303,023	657,576	238,730	27,201,352	1,302,453	25,898,899	818,295	3.3%
2024	27,201,352	680,034	238,730	28,122,140	1,384,489	26,737,651	838,752	3.2%
2025	28,122,140	703,053	238,730	29,065,948	1,468,575	27,597,373	859,722	3.2%
2026	29,065,948	726,649	238,730	30,033,353	1,554,764	28,478,589	881,216	3.2%
2027	30,033,353	750,834	238,730	31,024,944	1,643,106	29,381,838	903,249	3.2%
2028	31,024,944	775,624	238,730	32,041,325	1,733,658	30,307,667	925,830	3.2%
2029	32,041,325	801,033	238,730	33,083,117	1,826,473	31,256,644	948,977	3.1%
2030	33,083,117	827,078	238,730	34,150,955	1,921,609	32,229,346	972,702	3.1%

FINDINGS

The project team would like to acknowledge the Town's foresight in establishing a Capital Building Stabilization Fund (CBSF) and the growth in appropriations over the last 3 years. This action is a significant step to providing a source of revenue for debt service costs associated with major capital improvements to the Town's infrastructure. The concept behind this total funding plan exhibits many aspects of disciplined financial policies. It identifies a source of ongoing funds that grows gradually thru the use of the capital stabilization fund for future debt service costs without any significant impact on the operating budget. The plan also provides for flexibility in future years as the fund builds and the debt for the two public safety projects is paid. Bond rating agencies and national government finance organizations highly regard financial policies that recognize the importance of funding capital projects while maintaining reserves that can respond to changing financial conditions and other budgetary needs.

FINANCIAL RECOMMENDATIONS

The project team's analysis projects that the debt service for these projects could be covered thru the application of the Committee's proposed funding strategy while maintaining conservative capacity for other operating budget needs. The CBSF would also have assets to continue to invest in other capital projects or funds to reallocate for other important purposes with a 2/3 vote of Town Meeting. It will be very important for the appointed and elected officials to work closely to implement this plan and gain annual appropriations to this Capital Building Stabilization Fund.

Specific recommendations include:

- Decrease in debt service appropriations for the town hall and library (as well as future capital projects) can be viewed as a funding source for investment in the Town's infrastructure. Any movement of these "available" funds into the annual operating budget should be avoided in order to maintain future capacity to undertake expensive but necessary capital projects within the tax levy limitations of Proposition 2½;
- Management, the Board of Selectmen and the Finance Committee should closely monitor the changes in all expenditure items and revenue sources including new growth to determine when the model should be adjusted to either increase or decrease the amount of tax dollars allocated to the CBSF;
- Although the current vote establishing the CBSF restricts its use to funding debt service costs, it may be advantageous for the Town to change the purposes of the fund to allow for "pay-as-you-go" capital projects in order to pay for some projects without borrowing;
- New capital projects should be reviewed for the capacity of the model to fund these projects;
- Town Meeting warrant articles should be carefully developed for appropriations to and from the Capital Building Stabilization Fund;
- The Town Treasurer should work closely with the Financial Advisor to plan for the timing, amount and term of bonds. The use of BANS and/or segmented bond issues may be an important part of the payment timing and structure; and,

- A well planned presentation to bond rating agencies is important so that they can gain an understanding of this financing strategy. Bond rating agencies will likely have some negative comments about a future pledge that is not backed by a committed Proposition 2½ debt exclusion.

CONCLUDING COMMENTS

In reviewing the siting and phasing plan for the proposed Central Fire Station and training facilities, and the new Police Station, the project team concurs with the recommendations of the Buildings Study Committee to locate the new fire facilities at 99 Main Street and build the Police Station at the existing site at 112 Main Street. With this proposed investment, the Town's vitally important public safety functions will be located in facilities that meet their operational needs today and are designed to accommodate them for decades into the future.

The project team's financial review is limited in scope to the feasibility of funding the new Fire and Police facilities within the tax levy constraints of Proposition 2½. A review of a debt exclusion option and the corresponding impact on the temporary increase in the tax levy limit for property owners has not been undertaken. The project team's analysis projects that the debt service for these capital expenses could be covered through the application of the Committee's proposed funding strategy while maintaining conservative capacity for other operating budget needs.

The examples of debt service costs for these projects are based upon early estimates of the projects costs. As final design and bid documents are prepared, estimated costs may change. When bids are received, the Town will review the bids to determine the lowest, most responsible bidder in accordance with the Massachusetts public procurement laws and procedures. The determination of the final structure, amount and timing of BANS (bond anticipation notes and bonds should be made by the Town Treasurer in consultation with town administration and the town's fiscal advisor and with the approval of the Board of Selectmen.

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APPENDIX A:

Probable Estimate of Project Costs

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REINHAROT ASSOCIATES
architects • engineers • interior designers • planners

PROPOSED NEW CARVER FIRE HEADQUARTERS
CARVER, MA

PROBABLE ESTIMATE OF PROJECT COSTS:
Schematic Phase

July 8, 2009
Revised: September 17, 2013

1.	**SITE WORK**			
	a. General Site Work/ Site Development (Allowance)	$ 500,000.		
	1. Demolition of existing structures (3)	12,600.		
	2. On-site sanitary system	37,800.		
	3. On-Site public well system	18,900.		
2.	**GENERAL CONSTRUCTION**			
	a. Construct 12,953 GSF @ ~ $276 / SF =	$ 3,575,000.		
	b. Construct 8,456 GSF @ Apparatus Bay @ $200/ SF =	$ 1,691,200.		
	Sub Total:		$ 5,835,500.	
3.	**CONSTRUCTION FACTORS**			
	a. Study Phase Contingency @ 10% =	$ 583,600.		
	Sub-Total:		$ 6,419,100.	
	b. Construction/ Change Contingency @ 5% =	$ 321,000.		
4.	**TOTAL PRELIMINARY CONSTRUCTION BUDGET:**		**$ 6,740,100.**	
5.	**PROJECT DEVELOPMENT**			
	a. Architectural / Engineering Services (per DCAM sched.)	$ 570,000.		
	b. Owner's Project Manager	170,000.		
	c. Site Survey	By Town.		
	d. Wetland Scientists	600.		
	e. Geotechnical Engineer / Borings	10,500.		
	f. Legal / Bonding Counsel	115,000.		
	g. Printing / Reproduction	35,000.		
	h. Legal Advertising / Bid	1,500.		
	i. Clerk of the Works (See Owner's Project Manager)			
	j. Construction Materials Testing	30,000.		

k.	Furniture, Fixtures & Equipment (Allowance)	180,000.
	1) Tel / Data Systems (Est.)	90,000.
	2) Radio / Antenna Systems (Est.)	80,000.
l.	Moving/ Relocation Expenses	30,000.
m.	Commissioning	47,000
n.	Project Development Contingency @ 5%	70,000.
	Sub Total:	$ 1,429,600.

6. PROBABLE BUDGET ESTIMATE OF PROJECT COSTS **$ 8,169,700.**

7. ALTERNATE BIDS

a. LEED Expenses and Construction TBD

8. QUALIFICATIONS

a. This Estimate of Probable Project Cost is based on Following assumptions:

1. Normal Construction schedule has been used to prepare the Estimate.
2. Premium time costs are not included. Costs are based on forty hour work week, Monday thru Friday.
3. This Estimate is based on prevailing wage rates.
4. No costs are included for disposal or remedial work on contaminated soil.
5. Items that could impact this Estimate are:
   a. Unforeseen subsurface conditions
   b. Restrictive technical specification
   c. Non-competitive bid conditions (less than five qualified bids)
   d. Sole source specification of materials or products
   e. Delays beyond the project schedule or **June 2014** bid date
   f. Accelerated completion
   g. Restrictive phasing and extended construction schedule.
   h. Partial Owner occupancy of Project site.
6. This opinion of Probable Budget Estimate of Project Cost is made on the basis of the experience, qualifications and best judgment of RAI's professional staff. This Estimate is for budget purposes only; actual construction value is determined after the completion of the Construction Documents and the Bid Award process. Variance of +/- 5% of the estimate amount is probable.

REINHARDT ASSOCIATES
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PROPOSED NEW CARVER FIRE TRAINING FACILITY
CARVER, MA

PROBABLE ESTIMATE OF PROJECT COSTS:
Schematic Phase

December 14, 2010
Revised: September 16, 2013

1.	**SITE WORK**			
	a. General Site Work/ Site Development (Allowance)	$ 29,000.		
2.	**GENERAL CONSTRUCTION**			
	a. Construct Prefab/ Pre Engr. 22' x 40' GSF Training Structure	$ 426,000.		
	Sub Total:		$	455,000.
3.	**CONSTRUCTION FACTORS**			
	a. Study / Phase Contingency @ 10% =	$ 45,500.		
	Sub-Total:		$	500,500.
	b. Construction/ Change Contingency @ 5% =	$ 25,000.		
4.	**TOTAL PRELIMINARY CONSTRUCTION BUDGET:**		**$**	**525,500.**
5.	**PROJECT DEVELOPMENT**			
	a. Architectural / Engineering Services (min. Allowance)	$ 30,000.		
	b. Owner Project Manager	10,000.		
	c. Site Survey	By Town.		
	d. Wetland Scientists	N/A.		
	e. Geotechnical Engineer / Borings	TBD.		
	f. Legal / Bonding Counsel	N/A.		
	g. Printing / Reproduction	2,000.		
	h. Legal Advertising / Bid	N/A.		
	i. Clerk of the Works (See Owner's Project Manager	TBD.		
	j. Construction Materials Testing	5,500.		
	k. Project Development Contingency	5,000.		
	Sub Total:	$ 52,500.		
6.	**PROBABLE BUDGET ESTIMATE OF PROJECT COSTS**		**$**	**578,000.**

7. ALTERNATE ACCESSORY OPTIONS

a.	Two story exterior stair with landing and door:	$ 14,000.
b.	Cantalevered balcony with door	7,000.
c.	Two story standpipe with FD connections	4,500.
d.	Sprinkler system, 2 heads per floor	2,200.
e.	Smoke distribution system, including smoke generator, piping and controls	9,000.
f.	Power jamb forcible entry door	3,500.
g.	Movable maze system (6) 4' x 8' panels	8,000.
	1) Breaching panel (each	2,500.
	2) Maze panel with door and sweep (each)	4,000.
h.	Bail out prop with rapelling anchor	1,000.
i.	Floor breach prop	1,600.
j.	Wall breach prop	1,000.

8. TOTAL ALTERNATE COST TBD.

9. QUALIFICATIONS

a. This Estimate of Probable Project Cost is based on Following assumptions:

1. Normal Construction schedule has been used to prepare the Estimate.
2. Premium time costs are not included. Costs are based on forty hour work week, Monday thru Friday.
3. This Estimate is based on prevailing wage rates.
4. No costs are included for disposal or remedial work on contaminated soil.
5. Items that could impact this Estimate are:
   a. Unforeseen subsurface conditions
   b. Restrictive technical specification
   c. Non-competitive bid conditions (less than five qualified bids)
   d. Sole source specification of materials or products
   e. Delays beyond the project schedule or **June 2014** bid date
   f. Accelerated completion
   g. Restrictive phasing and extended construction schedule.
   h. Partial Owner occupancy of Project site.
6. This opinion of Probable Budget Estimate of Project Cost is made on the basis of the experience, qualifications and best judgment of RAI's professional staff. This Estimate is for budget purposes only; actual construction value is determined after the completion of the Construction Documents and the Bid Award process. Variance of +/- 5% of the estimate amount is probable.
7. Training Facility Cost Model: Second Alarm – Extended, as supplied by WHP Trainingtowers, KS

10. SELF-CONSTRUCT OPTION

a. Previous Estimate based on publically contracting all associative project work. Possible labor erection savings if volunteer workforce assembly erects supplied Training Facility structure is estimated to save approximately $110,000.

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PROPOSED NEW CARVER POLICE HEADQUARTERS
CARVER, MA

PROBABLE ESTIMATE OF PROJECT COSTS:
Schematic Phase

December 10, 2010
Revised: September 16, 2013
Revised: October 15, 2013

1.	**SITE WORK**			
	a.	General Site Work/ Site Development (Allowance)	$ 322,000.	
		1. Demolition of existing fire structure	56,000.	
		2. On-site sanitary system	39,000.	
	b.	Temporary facilities for Police Dept during construction	100,000.	
2.	**GENERAL CONSTRUCTION**			
	a.	Construct 10,438 GSF @ ~ $297 / SF =	$ 3,100,100.	
	b.	Renovate 5,018 GSF Exist. @ ~ $141 / SF =	707,500.	
	c.	Construct 5,795 GSF Attic @ ~ $ 157 / SF =	909,800.	
		Sub Total:		$ 5,234,400.
3.	**CONSTRUCTION FACTORS**			
	a.	Study Phase Contingency @ 10% =	$ 523,400.	
		Sub-Total:		$ 5,757,800.
	b.	Construction/ Change Contingency @ 5% =	$ 287,900.	
4.	**TOTAL PRELIMINARY CONSTRUCTION BUDGET:**			**$ 6,045,700.**
5.	**PROJECT DEVELOPMENT**			
	a.	Architectural / Engineering Services (per DCAM sched.):	$ 573,300.	
	b.	Owner's Project Manager	180,000.	
	c.	Site Survey	By Town.	
	d.	Wetland Scientists	N/A.	
	e.	Geotechnical Engineer / Borings	12,000.	
	f.	Legal / Bonding Counsel	120,000.	
	g.	Printing / Reproduction	40,000.	
	h.	Legal Advertising / Bid	1,700.	
	i.	Clerk of the Works (See Owner Project Manager)		

j.	Construction Materials Testing	34,000.
k.	Furniture, Fixtures & Equipment (Allowance)	170,000.
	1) Tel / Data Systems (Est.)	100,000.
	2) Radio / Antenna Systems (Est.)	90,000.
l.	Moving/ Relocation Expenses	22,000.
m.	Commissioning	52,000
n.	Project Development Contingency @ 5%	70,000.
	Sub Total:	$ 1,465,000.

6. PROBABLE BUDGET ESTIMATE OF PROJECT COSTS **$ 7,510,700.**

7. ALTERNATE BIDS

a.	LEED Expenses and Construction	TBD
b.	Carport	32,000.

8. QUALIFICATIONS

a. This Estimate of Probable Project Cost is based on following assumptions:

1. Normal Construction schedule has been used to prepare the Estimate.
2. Premium time costs are not included. Costs are based on forty hour work week, Monday thru Friday.
3. This Estimate is based on prevailing wage rates.
4. No costs are included for disposal or remedial work on contaminated soil.
5. No costs are included for abatement of hazardous materials.
6. Items that could impact this Estimate are:
   a. Unforeseen subsurface conditions.
   b. Restrictive technical specification.
   c. Non-competitive bid conditions (less than five qualified bids).
   d. Sole source specification of materials or products.
   e. Delays beyond the project schedule of *June 2017* bid date.
   f. Accelerated completion.
   g. Restrictive phasing and extended construction schedule.
   h. Partial Owner occupancy of Project site.
7. This opinion of Probable Budget Estimate of Project Cost is made on the basis of the experience, qualifications and best judgment of RAI's professional staff. This Estimate is for budget purposes only; actual construction value is determined after the completion of the Construction Documents and the Bid Award process. Variance of +/- 5% of the estimate amount is probable.

APPENDIX B:

Debt Service Schedules

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Town of Carver, Massachusetts

$8,700,000.00 General Obligation Fire Station Bonds - LEVEL DEBT SERVICE

Dated September 1, 2014

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I
06/30/2015	-	-	184,875.00	184,875.00
06/30/2016	215,000.00	4.250%	369,750.00	584,750.00
06/30/2017	225,000.00	4.250%	360,612.50	585,612.50
06/30/2018	235,000.00	4.250%	351,050.00	586,050.00
06/30/2019	245,000.00	4.250%	341,062.50	586,062.50
06/30/2020	255,000.00	4.250%	330,650.00	585,650.00
06/30/2021	265,000.00	4.250%	319,812.50	584,812.50
06/30/2022	275,000.00	4.250%	308,550.00	583,550.00
06/30/2023	290,000.00	4.250%	296,862.50	586,862.50
06/30/2024	300,000.00	4.250%	284,537.50	584,537.50
06/30/2025	315,000.00	4.250%	271,787.50	586,787.50
06/30/2026	325,000.00	4.250%	258,400.00	583,400.00
06/30/2027	340,000.00	4.250%	244,587.50	584,587.50
06/30/2028	355,000.00	4.250%	230,137.50	585,137.50
06/30/2029	370,000.00	4.250%	215,050.00	585,050.00
06/30/2030	385,000.00	4.250%	199,325.00	584,325.00
06/30/2031	405,000.00	4.250%	182,962.50	587,962.50
06/30/2032	420,000.00	4.250%	165,750.00	585,750.00
06/30/2033	440,000.00	4.250%	147,900.00	587,900.00
06/30/2034	455,000.00	4.250%	129,200.00	584,200.00
06/30/2035	475,000.00	4.250%	109,862.50	584,862.50
06/30/2036	495,000.00	4.250%	89,675.00	584,675.00
06/30/2037	515,000.00	4.250%	68,637.50	583,637.50
06/30/2038	540,000.00	4.250%	46,750.00	586,750.00
06/30/2039	560,000.00	4.250%	23,800.00	583,800.00
Total	**$8,700,000.00**	**-**	**$5,531,587.50**	**$14,231,587.50**

Yield Statistics

Bond Year Dollars	$130,155.00
Average Life	14.960 Years
Average Coupon	4.2500000%
Net Interest Cost (NIC)	4.2500000%
True Interest Cost (TIC)	4.2500000%
Bond Yield for Arbitrage Purposes	4.2500000%
All Inclusive Cost (AIC)	4.2500000%

IRS Form 8038

Net Interest Cost	4.2500000%
Weighted Average Maturity	14.960 Years

Town of Carver, Massachusetts

$8,700,000.00 General Obligation Fire Station Bonds - LEVEL PRINCIPAL

Dated September 1, 2014

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I
06/30/2015	-	-	174,000.00	174,000.00
06/30/2016	365,000.00	4.000%	348,000.00	713,000.00
06/30/2017	365,000.00	4.000%	333,400.00	698,400.00
06/30/2018	365,000.00	4.000%	318,800.00	683,800.00
06/30/2019	365,000.00	4.000%	304,200.00	669,200.00
06/30/2020	365,000.00	4.000%	289,600.00	654,600.00
06/30/2021	365,000.00	4.000%	275,000.00	640,000.00
06/30/2022	365,000.00	4.000%	260,400.00	625,400.00
06/30/2023	365,000.00	4.000%	245,800.00	610,800.00
06/30/2024	365,000.00	4.000%	231,200.00	596,200.00
06/30/2025	365,000.00	4.000%	216,600.00	581,600.00
06/30/2026	365,000.00	4.000%	202,000.00	567,000.00
06/30/2027	365,000.00	4.000%	187,400.00	552,400.00
06/30/2028	360,000.00	4.000%	172,800.00	532,800.00
06/30/2029	360,000.00	4.000%	158,400.00	518,400.00
06/30/2030	360,000.00	4.000%	144,000.00	504,000.00
06/30/2031	360,000.00	4.000%	129,600.00	489,600.00
06/30/2032	360,000.00	4.000%	115,200.00	475,200.00
06/30/2033	360,000.00	4.000%	100,800.00	460,800.00
06/30/2034	360,000.00	4.000%	86,400.00	446,400.00
06/30/2035	360,000.00	4.000%	72,000.00	432,000.00
06/30/2036	360,000.00	4.000%	57,600.00	417,600.00
06/30/2037	360,000.00	4.000%	43,200.00	403,200.00
06/30/2038	360,000.00	4.000%	28,800.00	388,800.00
06/30/2039	360,000.00	4.000%	14,400.00	374,400.00
Total	**$8,700,000.00**	-	**$4,509,600.00**	**$13,209,600.00**

Yield Statistics

Bond Year Dollars	$112,740.00
Average Life	12.959 Years
Average Coupon	4.0000000%
Net Interest Cost (NIC)	4.0000000%
True Interest Cost (TIC)	4.0000000%
Bond Yield for Arbitrage Purposes	4.0000000%
All Inclusive Cost (AIC)	4.0000000%

IRS Form 8038

Net Interest Cost	4.0000000%
Weighted Average Maturity	12.959 Years

Town of Carver, Massachusetts

$7,500,000.00 General Obligation Police Station Bonds - LEVEL DEBT SERVICE

Dated September 1, 2017

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I
06/30/2018	-	-	168,750.00	168,750.00
06/30/2019	180,000.00	4.500%	337,500.00	517,500.00
06/30/2020	185,000.00	4.500%	329,400.00	514,400.00
06/30/2021	195,000.00	4.500%	321,075.00	516,075.00
06/30/2022	205,000.00	4.500%	312,300.00	517,300.00
06/30/2023	215,000.00	4.500%	303,075.00	518,075.00
06/30/2024	225,000.00	4.500%	293,400.00	518,400.00
06/30/2025	235,000.00	4.500%	283,275.00	518,275.00
06/30/2026	245,000.00	4.500%	272,700.00	517,700.00
06/30/2027	255,000.00	4.500%	261,675.00	516,675.00
06/30/2028	265,000.00	4.500%	250,200.00	515,200.00
06/30/2029	280,000.00	4.500%	238,275.00	518,275.00
06/30/2030	290,000.00	4.500%	225,675.00	515,675.00
06/30/2031	305,000.00	4.500%	212,625.00	517,625.00
06/30/2032	320,000.00	4.500%	198,900.00	518,900.00
06/30/2033	335,000.00	4.500%	184,500.00	519,500.00
06/30/2034	350,000.00	4.500%	169,425.00	519,425.00
06/30/2035	365,000.00	4.500%	153,675.00	518,675.00
06/30/2036	380,000.00	4.500%	137,250.00	517,250.00
06/30/2037	395,000.00	4.500%	120,150.00	515,150.00
06/30/2038	415,000.00	4.500%	102,375.00	517,375.00
06/30/2039	435,000.00	4.500%	83,700.00	518,700.00
06/30/2040	455,000.00	4.500%	64,125.00	519,125.00
06/30/2041	475,000.00	4.500%	43,650.00	518,650.00
06/30/2042	495,000.00	4.500%	22,275.00	517,275.00
Total	**$7,500,000.00**	-	**$5,089,950.00**	**$12,589,950.00**

Yield Statistics

Bond Year Dollars	$113,110.00
Average Life	15.081 Years
Average Coupon	4.5000000%
Net Interest Cost (NIC)	4.5000000%
True Interest Cost (TIC)	4.5000000%
Bond Yield for Arbitrage Purposes	4.5000000%
All Inclusive Cost (AIC)	4.5000000%

IRS Form 8038

Net Interest Cost	4.5000000%
Weighted Average Maturity	15.081 Years

Town of Carver, Massachusetts

$7,500,000.00 General Obligation Police Station Bonds - LEVEL PRINCIPAL

Dated September 1, 2017

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I
06/30/2018	-	-	159,375.00	159,375.00
06/30/2019	315,000.00	4.250%	318,750.00	633,750.00
06/30/2020	315,000.00	4.250%	305,362.50	620,362.50
06/30/2021	315,000.00	4.250%	291,975.00	606,975.00
06/30/2022	315,000.00	4.250%	278,587.50	593,587.50
06/30/2023	315,000.00	4.250%	265,200.00	580,200.00
06/30/2024	315,000.00	4.250%	251,812.50	566,812.50
06/30/2025	315,000.00	4.250%	238,425.00	553,425.00
06/30/2026	315,000.00	4.250%	225,037.50	540,037.50
06/30/2027	315,000.00	4.250%	211,650.00	526,650.00
06/30/2028	315,000.00	4.250%	198,262.50	513,262.50
06/30/2029	315,000.00	4.250%	184,875.00	499,875.00
06/30/2030	315,000.00	4.250%	171,487.50	486,487.50
06/30/2031	310,000.00	4.250%	158,100.00	468,100.00
06/30/2032	310,000.00	4.250%	144,925.00	454,925.00
06/30/2033	310,000.00	4.250%	131,750.00	441,750.00
06/30/2034	310,000.00	4.250%	118,575.00	428,575.00
06/30/2035	310,000.00	4.250%	105,400.00	415,400.00
06/30/2036	310,000.00	4.250%	92,225.00	402,225.00
06/30/2037	310,000.00	4.250%	79,050.00	389,050.00
06/30/2038	310,000.00	4.250%	65,875.00	375,875.00
06/30/2039	310,000.00	4.250%	52,700.00	362,700.00
06/30/2040	310,000.00	4.250%	39,525.00	349,525.00
06/30/2041	310,000.00	4.250%	26,350.00	336,350.00
06/30/2042	310,000.00	4.250%	13,175.00	323,175.00
Total	**$7,500,000.00**	-	**$4,128,450.00**	**$11,628,450.00**

Yield Statistics

Bond Year Dollars	$97,140.00
Average Life	12.952 Years
Average Coupon	4.2500000%
Net Interest Cost (NIC)	4.2500000%
True Interest Cost (TIC)	4.2500000%
Bond Yield for Arbitrage Purposes	4.2500000%
All Inclusive Cost (AIC)	4.2500000%

IRS Form 8038

Net Interest Cost	4.2500000%
Weighted Average Maturity	12.952 Years

ABOUT THE CENTER

The Edward J. Collins, Jr. Center for Public Management in the McCormack Graduate School of Policy and Global Studies at the University of Massachusetts Boston was established in 2008 to improve the efficiency and effectiveness of all levels of government. The Center is funded by the Commonwealth and through fees charged for its services.

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UMASS BOSTON

EDWARD J. COLLINS, JR. CENTER FOR PUBLIC MANAGEMENT
JOHN W. McCORMACK GRADUATE SCHOOL OF POLICY AND GLOBAL STUDIES
UNIVERSITY OF MASSACHUSETTS BOSTON