MANCHESTER-BY-THE-SEA, MASSACHUSETTS

STUDY OF THE DEPARTMENT OF PUBLIC WORKS

DRAFT REPORT

MAY 2007

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CONTENTS

I. EXECUTIVE SUMMARY

MMA Consulting Group, Inc. was employed to conduct a management study of the Department of Public Works (DPW). The review covered the organization, management, staffing, planning, and service delivery framework of the Department. To conduct the analysis, the consultants reviewed information about the Department, including budgets, labor contracts, capital plans, and other reports, organization charts, and other written documentation. The consultants interviewed the leadership and supervisors of the Department, as well as employee representatives of various divisions of the Department. In addition to interviews and data review, the consultants conducted a windshield survey to observe the condition of roads, streets, drainage, and other facilities maintained by the DPW.

The DPW provides a range of services to Town residents, including roadway maintenance, snow removal, water treatment and distribution, maintenance of parks, cemeteries, beaches, and athletic fields, and sanitary sewer collection and treatment. The Department oversees contractual services for solid waste collection and collection of recyclables, street sweeping, water plant operations, and sludge handling. The Department has a budget of approximately $2.6 million. The Department has 21 authorized positions and organizes services into four operational units (Cemetery Division, Highway Division, Water and Sewer Division, and Sewer Treatment Division).

The Department has two primary missions. The Department is expected to meet daily maintenance and service needs and plan for future expansion and rehabilitation of the Town's infrastructure. With a small workforce and a relatively small budget devoted to public works services, the Department struggles to meet its daily maintenance responsibilities. The daily demands of providing services makes the development of a comprehensive planning process difficult.

The primary findings and conclusions of this review are:

- The Town needs to strengthen the management and supervisory structure of the Department to enable the Director of Public Works to plan for and develop a strategy for infrastructure improvements.

- The Director of the Department of Public Works has insufficient time to both oversee daily operations and develop a systematic planning process.

- The costs of identified infrastructure needs are so great that effective planning, project costing, and project management are essential.

- The Department, while it is relatively small, lacks a middle management structure. The Director is directly responsible for supervising three Foremen and the Chief Operator.

- The lack of time to plan creates inefficiencies within the Department.

- The Department does not have sufficient detailed information concerning components (inventory) of the Town's infrastructure organized in a manner that allows systematic decision–making by Town policy–makers.

- The Department does not have a multi–year capital plan and a pavement management plan linked to its infrastructure inventory.

- The employees of the Department should be empowered to participate in some decision–making processes (e.g., development of specifications for equipment).

- The conditions of public works facilities are poor. Given pressing financial demands and priorities in the Town, the construction of a new consolidated public works facility will not occur for many years. However, correction of any safety hazards and code violations in existing facilities may be required.

- The Town's approach to collecting solid waste (curbside collection and a transfer station) requires alteration.

- The Department generally has a sound equipment and vehicle fleet. The Department needs to consider selected adjustments in its inventory of equipment.

The primary recommendations made in this report are presented below.

➢ *Create the position of Operations Manager.* The Operations Manager should directly supervise and coordinate the work of the service delivery units of the Department and should be responsible for the following:

- Supervision of the Highway Foreman, Cemetery Foreman, Water and Sewer Foreman, and Chief Operator.
- Reviewing work completed, coordination of work force efforts, establishing daily priorities, and dealing with employee concerns and problems.
- Solving customer service problems and explaining operations to the public, as required.
- Overseeing and managing contractors providing services to the Department of Public Works.
- Serving as Acting Director, in the absence of the Director.
- Working with the Director to develop the budgets for each operational unit of the Department.

➢ *Redefine the role of the Director of the Department of Public Works.* The Director of the Department should be responsible for the following:

- General oversight of all Department operations.
- Direct oversight of the administrative services of the Department.
- Short–term planning, including the development of priorities of the Operations Manager.
- Long–term planning, including the development of comprehensive inventories of the Town's infrastructure and the development of priorities for infrastructure repair and replacement.
- Developing annual budgets and plans and managing the operating budget.
- Evaluating service delivery and the development of department budgets and cost estimates.
- Supervising engineering consultants.
- Coordinating functions with other Town agencies.

- *Reorganize the Department of Public Works.* The creation of a new position of Operations Manager requires some minor reorganization of the Department. Under the new organization, the following chain of command would be operational:

  - The Operations Manager, the Assistant to the Director, and the Accounts Clerk would report to the Director of the Department of Public Works.
  - The Cemetery Foreman, Highway Foreman, Water and Sewer Foreman, and Chief Plant Operator would report to the Operations Manager.
  - The equipment repair functions would remain in the Highway Division; however, once the position of Operations Manager is operational, it may be possible to have an Equipment Repair Division reporting to the Operations Manager.

Exhibits I–1 and I–2 show the current and proposed organization of the Department of Public Works.

EXHIBIT I-1
DEPARTMENT OF PUBLIC WORKS
CURRENT ORGANIZATION

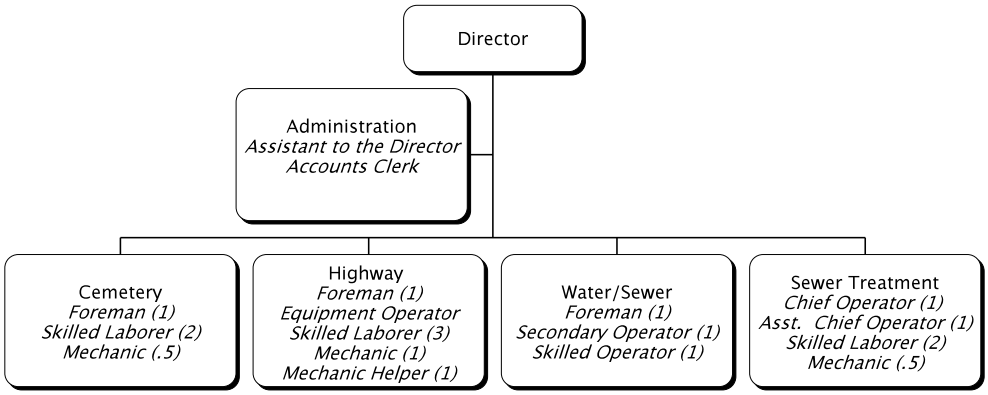
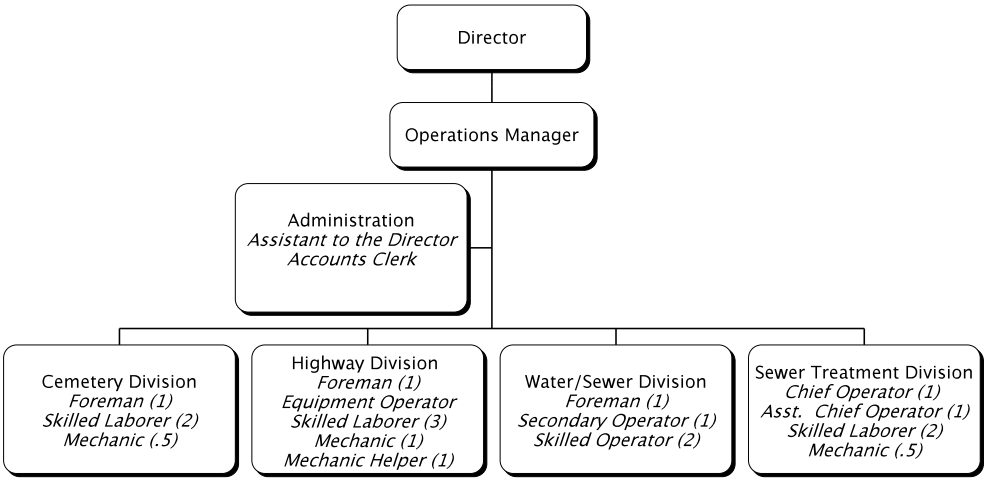


EXHIBIT I-2
DEPARTMENT OF PUBLIC WORKS
PROPOSED ORGANIZATION



- *Redesign the solid waste and recycling services.* The Town should discontinue the practice of collecting solid waste and recyclables at the transfer station. Solid waste and recycling services should be provided by curbside pick–up.

- *Develop a fee system to cover costs of solid waste collection and disposal.* The Town should develop a system in which the costs of solid waste collection and disposal services are fully recovered by fees for service.

- *Replace water meters.* The Department should consider replacing water meters.

- *Develop a Municipal Infrastructure Report.* The Department should inventory roadways, water supply facilities (treatment, distribution, storage), sewer system facilities (collection and treatment), and equipment assets. This infrastructure report should identify service life for system components and replacement schedules for assets.

- *Employ one additional Skilled Laborer in the Water and Sewer Division.* The Department should employ one additional laborer for the Water and Sewer Division.

- *Develop a written snow removal plan.* The Department should develop a written snow removal plan which defines operations and priorities.

- *Purchase a front-end loader.* The Department would have increased flexibility with the purchase of a front–end loader.

The current and proposed staffing of the Department is shown in the following exhibit. Two staff increases are suggested: the Operations Manager, and one additional position primarily assigned to the Water and Sewer Division.

EXHIBIT I-3

CURRENT AND PROPOSED STAFFING OF THE DEPARTMENT OF PUBLIC WORKS

POSITION	CURRENT	PROPOSED	DIFFERENCE
ADMINISTRATION			
Director	1	1	
Operations Manager	0	1	+1
Assistant to the Director	1	1	
Accounts Clerk	1	1	
Subtotal	3	4	+1
SEWER TREATMENT DIVISION			
Chief Plant Operator	1	1	
Assistant Chief Operator	1	1	
Skilled Laborer	2	2	
Mechanic (part-time, see Cemetery Division)	.5	.5	
Subtotal	4.5	4.5	
HIGHWAY DIVISION			
Foreman	1	1	
Equipment Operator	1	1	
Skilled Laborer	3	3	
Mechanic	1	1	
Mechanic Helper	1	1	
Subtotal	7	7	
WATER & SEWER DIVISION			
Foreman	1	1	
Secondary Operator	1	1	
Skilled Laborer	1	2	+1
Subtotal	3	4	+1
CEMETERY DIVISION			
Foreman	1	1	
Skilled Laborer	2	2	
Mechanic (part-time, see Sewer Treatment Division)	.5	.5	
Subtotal	3.5	3.5	
Total	21	23	+2

The major recommendations are listed below in the order they are presented in this report, along with assigned priorities. The recommendations contained in this report have been categorized as follows:

Priority 1: Recommendations which establish the framework for other recommendations or directly affect the safety of personnel or the public. These recommendations need to be addressed immediately.

Priority 2: Recommendations which should be implemented without delay, since they may bear directly on productivity and efficient operation of Department of Public Works services in the Town of Manchester-by-the-Sea.

Priority 3: Recommendations which are important to the efficient provision of public works services in the Town of Manchester-by-the-Sea and which should be implemented as soon as reasonable and practical.

EXHIBIT I-4
RECOMMENDATIONS AND PRIORITIES

	RECOMMENDATION	PRIORITY
II-1	The Town should create the position of Operations Manager to oversee field operations of the Department.	1
II-2	The compensation for the Operations Manager should be between $65,000 and $75,000.	1
II-3	The Town should redefine the role of the Director of the Department of Public Works.	1
II-4	The Department of Public Works should realign the Department's chain of command when the proposed position of Operations Manager is filled.	2
II-5	The Department's chain of command should be as follows: ‣ The Operations Manager, the Assistant to the Director, and the Accounts Clerk should report to the Director of the Department of Public Works. ‣ The Highway Foreman, the Cemetery Foreman, the Water and Sewer Foreman, and the Chief Operator should report to the Operations Manager.	2
II-6	The Town should conduct an aggressive search for the position of Director of Pubic Works.	1
III-1	The Town should provide solid waste services by one method, rather than by both curbside collection and the use of a transfer station.	2

III-2	The Town should use curbside collection services.	2
III-3	The Town should develop a system in which the costs of solid waste collection and disposal services are fully recovered by fees for service.	3
III-4	The Town policy-makers should determine whether the Town should adopt a "pay-as-you-throw" policy, or develop a system of monthly, quarterly, semi-annual, or annual collection of fees.	3
III-5	The Town should immediately increase the fees for day passes for the transfer station.	1
IV-1	The Department should develop a systematic plan to re-pave approximately 2.3 to 2.5 miles of roads each year.	2
IV-2	The Department should develop a written snow removal plan.	1
IV-3	The proposed position of Operations Manager should work with division supervisors to develop a specific snow removal plan which addresses the unique characteristics of the Town.	2
IV-4	The Department should develop the snow removal plan and necessary policies prior to next winter.	2
IV-5	The Department should purchase a front-end loader.	2
IV-6	The Department should budget approximately $150,000 to purchase the front-end loader.	2
IV-7	The Department should purchase a dump body with necessary hydraulic equipment for use on the recently purchased truck.	2
IV-8	The Department should, when possible, purchase equipment which has multiple uses, to increase flexibility and productivity.	1
IV-9	The Department should use a collaborative process to help determine the type of vehicles and equipment the Town should purchase.	3
IV-10	The Department should identify non-functioning water meters during the quarterly reading process.	1
IV-11	The Department should develop a program of systematic water meter replacement.	2
IV-12	The Town should consider alternative methods of replacing meters, including employing a staff person with responsibility for meter installation and meter reading, or employing a company to supply and replace all water meters.	2
IV-13	The Department should purchase a small pick-up truck with basic equipment for purposes of meter reading and meter replacement.	3

IV-14	Purchase a new backhoe (as planned) and keep the old backhoe as a back-up piece of equipment.	2
IV-15	The Department should select one type of fire hydrant and replace all units with the same type of hydrant, over time.	3
IV-16	The Department should change the name of the Cemetery Division to the Cemetery and Park Division.	3
IV-17	Evaluate the type of equipment used for mowing fields and cemeteries.	1
IV-18	Review the pay scales of seasonal personnel.	2
IV-19	The Department should find a more appropriate location from which to sell grave sites. (See Section V).	2
IV-20	The Department should develop and present systematic data on vehicle and equipment use to ensure a systematic replacement of equipment and vehicles.	3
IV-21	The Department should develop a Municipal Infrastructure Report which inventories and evaluates each element of the Town's infrastructure.	2
IV-22	The Operations Manager should be responsible for overseeing employee performance and assessing the professional development needs of employees.	2
V-1	The Town should develop a long-term plan to improve the condition of public works facilities (five, ten, or more year plan).	3
V-2	The Department of Public Works should identify code and safety concerns within facilities and budget for necessary repairs.	1
V-3	The Director of the Department of Public Works should be provided with a private office and work space.	1

The report is organized into several sections. This *Executive Summary* presents the major findings and recommendations. Section II, *Organization and Management of the Department*, describes the current organization of the Department of Public Works, proposes a new organizational structure, and recommends an improved management structure. Section III*, Solid Waste and Recycling Services,* describes the current service framework and recommends a new approach to service delivery. Section IV, *General Management and Operations,* contains a range of administrative recommendations for several divisions, including the development of a comprehensive infrastructure report. Section V, *Public Works Facilities: A Long-Term Improvement Plan*, suggests a long-term plan

for public works facility replacement and identifies several space needs or facility issues which require more immediate attention. Section VI, *Implementation of Recommendations,* presents an approach to implementing recommendations.

II. ORGANIZATION AND MANAGEMENT OF THE DEPARTMENT

CURRENT ORGANIZATION STRUCTURE

The current staffing complement of the Manchester–by–the–Sea Department of Public Works is shown in Exhibit II–1. Exhibit II–2 presents the current organization chart for the Department. The organization chart shows the Director as the manager overseeing the operations of the Department. The Department has 21 employees: a Director, two office support personnel, three Foremen, a Chief Operator (Sewer Treatment), an Assistant Chief Operator, two Mechanics, one Mechanic's Helper, eight Skilled Laborers, one Secondary Operator, and one Equipment Operator.

EXHIBIT II–1

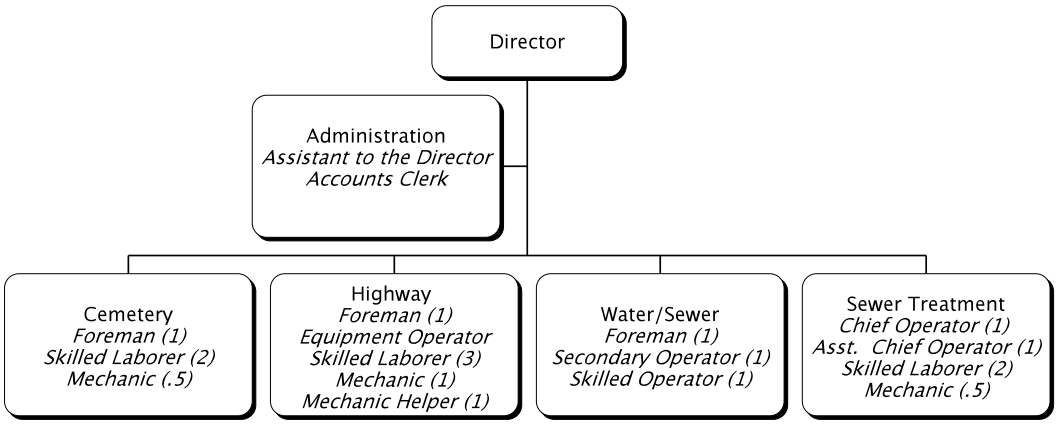
CURRENT STAFFING OF THE DEPARTMENT OF PUBLIC WORKS

POSITION	CURRENT
ADMINISTRATION	
Director	1
Assistant to Director	1
Accounts Clerk	1
Subtotal	3
SEWER TREATMENT DIVISION	
Chief Plant Operator	1
Assistant Chief Operator	1
Skilled Laborer	2
Mechanic (part–time, see Cemetery Division)	.5
Subtotal	4.5
HIGHWAY DIVISION	
Foreman	1
Equipment Operator	1
Skilled Laborer	3
Mechanic	1
Mechanic Helper	1
Subtotal	7

WATER & SEWER DIVISION	
Foreman	1
Secondary Operator	1
Skilled Laborer	1
Subtotal	3
CEMETERY DIVISION	
Foreman	1
Skilled Laborer	2
Mechanic (halftime (see Sewer Treatment Division)	.5
Subtotal	3.5
Total	21

Exhibit II-2 displays the organizational units in the Department and the personnel assigned to each unit. The Cemetery Division and the Sewer Treatment Division share a Mechanic.

EXHIBIT II-2
DEPARTMENT OF PUBLIC WORKS
CURRENT ORGANIZATION



The current organizational structure appears to have worked reasonably well. In part, this has been because the Director of the Department of Public Works has been with the Department for many years. The consultants' analysis of the current position of Director indicates that the Director has two sets of responsibilities; the Director manages the daily operations of the Department and prepares short–term and long–term plans. This organizational approach is not fully successful, since it does not ensure that there is sufficient time devoted to planning.

The Director is frequently called upon to address operational issues in the field. While field supervision is part of a department head's job, too much of the Director's time is devoted to field operations. The effective management of a Public Works Department requires short–term and long–term planning, priority setting, public communication, and outreach work.

There is no middle management within the Department. While the Department is relatively small, the current organization of the Department has one manager, the Director. Division Foremen and the Chief Operator oversee the field operations of their own divisions, but they do not generally participate in budget development, budget administration, or long–term planning. Supervisory personnel tend to work independently and may not be fully aware of other operations within the Department. Thus, there appears to be limited communication within the organization. However, it is important to remember that the Director has little time to engage in formal communication processes and staff meetings; the daily demands on the Director's time preclude formal communication mechanisms.

ROLE OF THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS

It is our view that the Director's position, as it is now structured, focuses on operational or field needs. The workload is such that the Director devotes significant time to overseeing daily operational problems and reacting to emergencies and has limited time for planning and other management functions. All functions of the Department report to the Director, requiring the Director to assume direct responsibility for a range of operational functions. As a result, there is a need for a structure which allows the Director to delegate and hold personnel accountable for work responsibilities and assignments.

We recommend that the Town establish a new position of Operations Manager. The Operations Manager's responsibilities should focus on working with the Director to establish priorities and field supervision of each division. The Operations Manager should directly supervise and coordinate the work of the various divisions and should be responsible for the following:

- Supervision of the Highway Foreman, Cemetery Foreman, Water and Sewer Foreman, and Chief Operator.
- Reviewing work completed, coordination of work force efforts, establishing daily priorities, and dealing with employee concerns and problems.
- Solving customer service problems and explaining operations to the public, as required.
- Overseeing and managing contractors providing services to the Department of Public Works.
- Serving as Acting Director, in the absence of the Director.
- Working with the Director to develop the budgets for each operational unit of the Department.

The Operations Manager would also be responsible for coordinating the work of each division and, if necessary, re–assigning personnel to priority functions. The Operations Manager should also be an important link in the internal communication system within the Department and hold staff meetings with Foremen to share information and coordinate work. The Operations Manager should also work with the division supervisors so that they understand the budget development and administration process.

RECOMMENDATION II-1: *The Town should create the position of Operations Manager to oversee field operations of the Department.*

The creation of the new position of Operations Manager will allow the Director of the Department of Public Works to devote more time to planning. The Director would remain responsible for the general oversight of the entire Department and the administrative services of the Department, but would also focus on important planning functions, such as:

- ➢ Short–term planning, including the development of priorities for the Operations Manager.
- ➢ Long–term planning, including the development of comprehensive inventories of the Town's infrastructure, the development of priorities for infrastructure repair, and articulating needs to Town policy–makers.
- ➢ Development of the annual budget and capital plans
- ➢ Coordinating the administration of the annual budget.
- ➢ Working with Town policy–makers to establish major initiatives and develop Department goals.
- ➢ Evaluating service delivery and the development of department budgets and cost estimates.
- ➢ Supervising engineering consultants.
- ➢ Coordinating functions with other Town agencies.

The Operations Manager should be a non–union management position with a salary in the range of $65,000 to $75,000 per year. Ideally, the position should be filled by a municipal public works professional who has experience supervising municipal public works services and maintenance and construction projects. The person employed should have approximately 10 years of experience relating to road maintenance, water and sewer systems, and maintenance of parks, cemeteries and grounds. Strong field supervisory experience should be required.

The Operations Manager need not be an engineer or have a formal education, but a Bachelor's Degree in a field related to public works administration is desirable. Project management experience and financial management skills are essential.

RECOMMENDATION II-2: *The compensation for the Operations Manager should be between $65,000 and $75,000.*

RECOMMENDATION II-3: *The Town should redefine the role of the Director of the Department of Public Works.*

The creation of a new position of Operations Manager requires some minor reorganization of the Department. Under the new organization, the following chain of command would be operational.

- The Operations Manager, the Assistant to the Director, and the Accounts Clerk should report to the Director of the Department of Public Works.
- The Cemetery Foreman, Highway Foreman, Water and Sewer Foreman, and Chief Plant Operator should report to the Operations Manager.
- The equipment repair function should remain in the Highway Division; however, once the position of Operations Manager is operational, it may be possible to have an Equipment Repair Division reporting to the Operations Manager.

RECOMMENDATION II-4: *The Department of Public Works should realign the Department's chain of command, when the proposed position of Operations Manager is filled.*

RECOMMENDATION II-5: *The Department's chain of command should be as follows:*

- *The Operations Manager, the Assistant to the Director, and the Accounts Clerk should report to the Director of the Department of Public Works.*
- *The Highway Foreman, the Cemetery Foreman, the Water and Sewer Foreman, and the Chief Operator should report to the Operations Manager.*

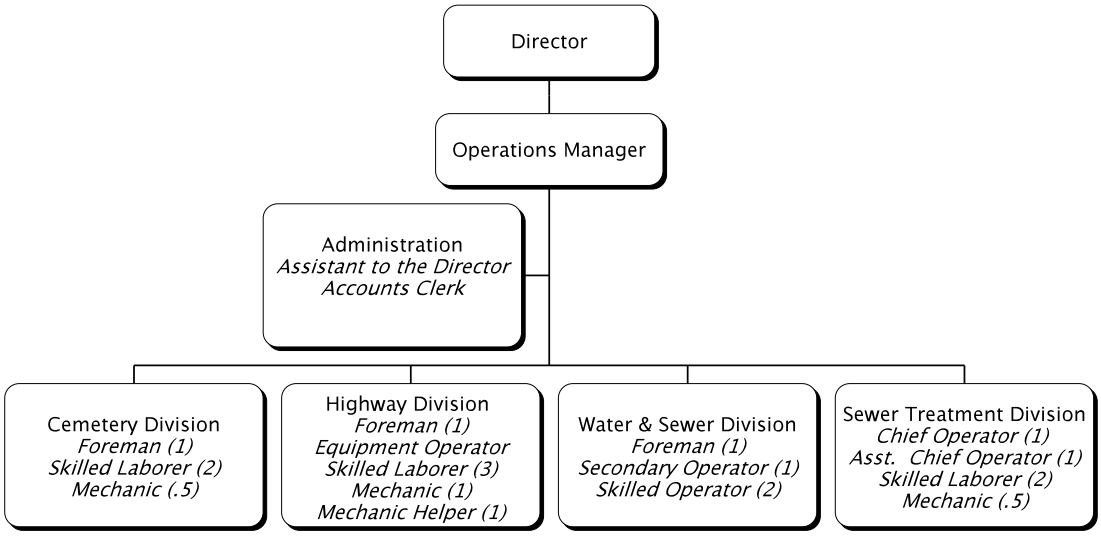
The following exhibit displays the different roles of the Director of the Department of Public Works, the Operations Manager, and a Division Foreman.

EXHIBIT II-3
ROLES OF THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS, THE OPERATIONS MANAGER, AND A DIVISION FOREMAN

POSITION	RESPONSIBILITY
Director of the Department of Public Works	Carries out the overall mission of the Department. Ensures effectiveness of Department operations. Develops policies and procedures for the maintenance and repair of the existing infrastructure, including pavement management programs. Develops a municipal infrastructure program. Develops the operating budget and the capital program for existing infrastructure repairs. Develops snow and ice procedures and policies.
Operations Manager	Oversees the daily operations of each division. Implements the budget. Reviews and follows up on work assignments. Coordinates activities of each division. Carries out the policies of the Department. Oversees snow and ice removal. Directs the maintenance of the existing infrastructure, including roads, sidewalks, drainage systems and wastewater collection systems, parks, cemeteries, beaches, public shade trees, cemeteries, and vehicles. Implements the pavement management program. Develops a vehicle and equipment replacement schedule and procedures.
Foreman (general role)	Oversees daily scheduling and operations of personnel and equipment to secure the successful completion of the Department's goals, as directed by the Operations Manager. Supervises personnel and work crews. Assists the Operations Manger with resolving complaints. Advises the Operations Manager about problems and suggests new approaches, as appropriate. Makes recommendations regarding needed equipment and resources.

Exhibit II–4 displays the proposed organization of the Department of Public Works.

EXHIBIT II–4
DEPARTMENT OF PUBLIC WORKS
PROPOSED ORGANIZATION



RECRUITMENT OF THE DIRECTOR AND THE OPERATIONS MANAGER

The retirement of the Director of the Department of Public Works will require the Town to conduct a recruitment effort to employ a new Director. The Town should consider using a number professional advertising journals. The *Beacon* (monthly publication of the Massachusetts Municipal Association) and www.mma.org, the APWA (American Public Works Association) web site, www.apwa.net, and www.govtjobs.com are publications and web sites where advertisements should be placed.

Once a new Director of the Department of Public Works is employed, the Director should be empowered to recruit and hire the Operations Manager. The Town should use the advertising outlets listed above.

RECOMMENDATION II-6: *The Town should conduct an aggressive search for the position of Director of Pubic Works.*

Below we have presented new job descriptions for the positions of Director of Public Works and Operations Manager. It is recommended that the Director of Public Works have a Bachelor's Degree in civil engineering, or a related field, and ten years of experience in municipal public works administration, engineering and construction**.**

EXHIBIT II-5

JOB DESCRIPTION

DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS

Definition

The Director performs management, administrative, supervisory and technical work planning, directing, and managing operations of the Department of Public Works, including administration, highway, water distribution, cemetery, sewer, solid waste and recycling, and vehicle maintenance functions; other related work, as required.

Essential Functions

The essential functions or duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

Supervises and directs the Department of Public Works; plans for and oversees the daily operation of each unit; oversees the development of the operating budget and the capital budget.

Formulates policies and program objectives for the department's operation; provides overall direction to operating divisions; plans, organizes and directs department activities through subordinate supervisors; ensures that appropriate safety training is implemented.

Develops long-range plans for infrastructure improvements; assesses the infrastructure needs of the Town; estimates the cost of needed improvements or additions; makes recommendations regarding funding priorities.

Develops policies and procedures for the maintenance and repair of the existing infrastructure, including the pavement management programs; establishes plans for daily maintenance work; develops snow and ice procedures and policies.

Represents, interacts and negotiates with the department at a variety of meetings, both within and outside the town; develops and maintains effective working relationships with municipal, regional, state, and federal officials and agencies to ensure compliance with all laws and regulations and consent decrees affecting the work of the department.

Engages in crisis management and develops solutions to emergencies caused by failing infrastructure systems; marshals resources to respond to such situations and establishes priorities.

Responds to inquiries from the general public and town employees pertaining to department projects and policies; resolves citizen problems and responds to requests for service; develops plans to improve traffic management.

Responsible for personnel, including assignment of personnel, evaluation of performance, establishing standards of performance and conduct, administering discipline, and other personnel management functions.

Performs similar or related work as required, or as situation dictates.

Supervision
Works under the policy direction of the Board of Selectmen and administrative supervision of the Town Administrator; responsible duties require the exercise of considerable independent judgment in the planning, direction, and administration of the operation and maintenance of the public works infrastructure.

Supervisory Responsibilities
Directly supervises the Operations Manager and administrative staff; indirectly supervises division supervisors. Oversees contractors and consultants.

Work Environment
Approximately 50 percent of work is performed in office conditions; outside work involves exposure to variable weather conditions and hazards associated with construction sites. The volume of work is subject to emergencies and weather-related conditions. The employee is regularly required to attend evening meetings and work outside of normal business hours; on call to respond to emergencies.

The employee operates standard office equipment and an automobile.

The employee has extensive contact with the general public, town department heads, federal, state and regional agencies, contractors, and consultants.

Errors in administrative decisions could result in injury to others, delay or loss of service, damage to buildings or equipment, monetary loss, and legal repercussions.

Recommended Minimum Qualifications

Education and Experience

Bachelor's Degree in civil engineering or a related field; ten years of responsible experience in municipal public works administration, engineering and construction; or an equivalent combination of education and experience.

Additional Requirements

Valid Massachusetts motor vehicle operator's license

Knowledge, Ability and Skill

Considerable knowledge of the principles and practices of public works planning and management; technical and practical knowledge of the materials, methods and techniques relative to public works projects and issues; thorough knowledge of public works financing and administration; considerable knowledge of personnel management, collective bargaining processes, and purchasing procedures.

Ability to respond to emergencies and solve problems; ability to plan, assign and supervise the work of groups of employees engaged in a variety of public works construction and maintenance operations; ability to communicate effectively orally and in writing; ability to establish and maintain effective working relationships with town officials and departments, state and regional agencies, the general public, consultants, vendors, and contractors; ability to work with aggrieved members of the public tactfully and effectively and maintain positive public relations; ability to prepare and administer budgets and long-term capital plans.

Management and leadership skills; customer service and public relations skills; skill in developing policies and procedures to accomplish goals and objectives.

Physical Requirements

Minimal physical effort is required to perform administrative duties. The employee is frequently required to stand, walk, sit, speak and hear and use hands to operate equipment; the employee is occasionally required to lift and move objects weighing up to 30 pounds. Vision requirements include the ability to read and analyze documents, use a computer, and operate a motor vehicle.

This job description does not constitute an employment agreement between the employer and employee, and is subject to change by the employer, as the needs of the employer and requirements of the job change.

EXHIBIT II-6

JOB DESCRIPTION

OPERATIONS MANAGER

Definition

The Operations Manager performs supervisory, planning, and management work directing the field operations and supervising division foremen and the chief operator; other related work, as required.

Essential Functions

> The essential functions or duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

Oversees the daily operation of the each operational unit; assigns and reviews work; assesses work progress.

Assists the Director in the development of the operating budget and capital budget for existing infrastructure repairs; administers the budget in accordance with policies and procedures.

Oversees contractual services; assesses contractor performance and works with contractors to improve performance.

Plans, organizes and directs daily and cyclical department activities through subordinate supervisors; implements appropriate safety training; develops specifications for equipment and vehicles.

Generates necessary information relating to public works assets; makes recommendations regarding priorities and maintenance needs to the Director; assists in the development of cost estimates; makes recommendations regarding funding priorities.

Assists in the development of policies and procedures for the maintenance and repair of the existing infrastructure, including pavement management programs; establishes plans for daily maintenance work; develops snow and ice procedures and policies; supervises contractor performing snow and ice removal.

May represent the department at a variety of meetings, both within and outside the town; develops and maintains effective working relationships with municipal, regional, state, and federal officials and agencies to ensure compliance with all laws and regulations and consent decrees affecting the work of the department.

Responds to emergencies; determines personnel, equipment and supplies needed to address emergencies; directs personnel at public works emergencies; oversees and directs snow and ice removal operations.

Responds to inquiries from the general public and town employees pertaining to department projects and policies; resolves citizen problems and responds to requests for service; develops plans to improve traffic management.

Works with supervisors to assess personnel; ensures that standards of performance and conduct are met, administers discipline in consultation with the Director.

Performs similar or related work as required, or as situation dictates.

Supervision
Works under the administrative direction of Director of the Department of Public Works; responsible duties require the exercise of independent judgment to direct daily maintenance operations.

Supervisory Responsibilities
Supervises division supervisors directly. Oversees contractors and consultants.

Work Environment
Approximately 10 to 30 percent of work is performed in office conditions, depending on the season; 70 to 90 percent of work is performed in field or shop conditions which involve exposure to variable weather conditions and hazards associated with construction sites. The volume of work is subject to emergencies and weather-related conditions. The employee is required to attend evening meetings and work outside of normal business hours; on call to respond to emergencies.

The employee operates standard office equipment, an automobile and light trucks.

The employee has extensive contact with the general public, town department heads, federal, state and regional agencies, contractors, and consultants.

Errors in administrative decisions could result in injury to others, delay or loss of service, damage to buildings or equipment, monetary loss, and legal repercussions.

Recommended Minimum Qualifications

Education and Experience
Associate's Degree in construction management, engineering, business administration, or a related field; Bachelor's Degree desirable; ten years of responsible experience in directing work crews, planning daily operations, assessing the personnel, material and equipment required to perform public works projects; or an equivalent combination of education and experience.

Additional Requirement
Valid Massachusetts motor vehicle operator's license

Knowledge, Ability and Skill
Knowledge of the principles and practices of public works planning and management; technical and practical knowledge of the materials, methods and techniques relative to public works projects and issues; knowledge of the management and supervision of personnel and work crews; knowledge of public purchasing procedures.

Ability to plan, supervise and direct work crews and measure performance; ability to supervise contractors and monitor contract compliance; ability to assess maintenance needs; ability to communicate effectively orally and in writing; ability to establish and maintain effective working relationships with town officials and departments, the general public, consultants, vendors, and contractors; ability to work with aggrieved members of the public tactfully and effectively and maintain positive public relations; ability to administer budgets and maintenance plans.

Supervisory, management and leadership skills; excellent customer service and public relations skills; skill in developing policies and procedures to accomplish goals and objectives.

Physical Requirements
Minimal physical effort is required to perform administrative duties. The employee is frequently required to stand, walk, sit, speak and hear and use hands to operate equipment; the employee is occasionally required to lift and move objects weighing up to 60 pounds. Vision requirements include the ability to read and analyze documents, use a computer, and operate a motor vehicle.

This job description does not constitute an employment agreement between the employer and employee, and is subject to change by the employer, as the needs of the employer and requirements of the job change.

III. SOLID WASTE AND RECYCLING SERVICES

The Town of Manchester–by–the–Sea provides solid waste and recycling services to residents in two ways. The Town provides weekly curbside collection of solid waste and recyclables from residences in the Town. The Town also provides collection of solid waste and recyclables at a transfer station two days per week.

In addition to the collection of solid waste, the Town has a contractual agreement with Wheelabrator's Resource Recovery Facility located in North Andover (known as WNA). This facility accepts the Town's solid waste which is burned and turned into electricity. During FY '06, the Town delivered a total of 2,431.61 tons to WNA, paying $64.00 per ton, for a total cost of $155, 623.04.

COST OF WASTE AND RECYCLING SERVICES

The cost of providing solid waste and recycling services to the Town during FY '06 totaled $205,000 for the contractual portion and an additional $30,661.52 for the cost of operating the transfer station. In addition, the Town expended $13,177.41 for composting. The total cost of providing collection and disposal of solid waste and recyclables and composting during FY '06 was $404, 461.97.

To offset the cost of providing this service, the Town collected revenue from the sale of stickers for the curbside service, annual passes for the use of the transfer station, and transfer station day passes for temporary use of the transfer station. The sale of these permits and passes yielded a total revenue of $133,487.00. In addition to the sale of permits and stickers, the Town received a refund credit from WNA in the amount of $17,156.00. The amount of revenues received for solid waste services in FY '06 totaled $150,643.00. In comparing the amount expended to the amount of revenue received, the Town is expending $253,818.97 more for this service than it receives in revenue.

Exhibit III–1 shows the cost of services and the current revenues collected. The exhibit indicates that revenue collected is considerably less than the amount necessary to fully fund this service. An analysis of the cost for each service is detailed below.

Analysis suggests that there are several matters that Town policy–makers should consider when reviewing solid waste collection services.

- The Town should consider whether it wishes to continue to provide both solid waste collection services, i.e. curbside services and transfer station services.
- The Town should consider the policy of adjusting the cost of solid waste service so that revenues fully cover the cost of services.
- The Town should evaluate the success of curbside collection versus the operation of the transfer station.
- The Town should increase the cost of one–day passes so that revenues cover the estimated cost for the disposal and hauling of materials disposed by the user of the one–day pass.

The following exhibit displays expenses and revenues for solid waste and recycling services.

EXHIBIT III–1
ESTIMATED COST OF SOLID WASTE AND RECYCLING SERVICES

EXPENSES		
	Collection/Transfer Station Contract	$205,000.00
	Disposal Cost at WNA (2,431.61 tons x $64.00 per ton = $156,623.04)	$156,623.04
	Transfer Station Expense	$30,661.52
	Composting Expense	$13,177.41
	TOTAL FY '06 EXPENSE	$404,461.97
REVENUE		
	Curbside Stickers	$80,277.00
	Transfer Station Day Passes	$2,900.00
	Transfer Station Annual Passes	$50,310.00
	SUBTOTAL REVENUE	$133,487.00
	Wheelabrator Refund/Credit	$17,156.00
	TOTAL REVENUE	$150,643.00
DIFFERENCE	EXPENSE MINUS REVENUE	($253,818.97)

COST OF TRANSFER STATION OPERATION

Exhibit III–2 presents the estimated cost of operating the transfer station. Under the contract between the Town and the solid waster hauler, the Town is allowed a set number of hauls from the transfer station to the disposal site each month. If there are fewer hauls in a month, the Town is credited with $150 for each haul under the allowed number of hauls. For purposes of our analysis, we have used the $150 per haul value as the value for each roll–off haul. In Exhibit III–2, the cost of operating the transfer station has been estimated.

EXHIBIT III–2
COST OF TRANSFER STATION OPERATIONS

Solid Waste Container Hauls (FY '06) 152 hauls x $150/haul	$22,800.00
Recycled Paper Container Hauls (FY '06) 91 hauls x $150/haul	$13,650.00
Co–mingled Recyclables Container Hauls (FY '06) 45 hauls x $150/haul	$6,750.00
Subtotal (contract)	$43,200.00
Transfer Station Salaries	$18,850.00
Miscellaneous Expenses	$18,800.00
Subtotal (salaries and miscellaneous expenses)	$80,850.00
Solid Waste Disposal at Wheelabrator 1201.80 tons x $ 64.00/ton	$76,915.20
Total Transfer Station Expense	$157,765.20

In analyzing the costs of operating the transfer station, we compared the cost of operating the transfer station to the amount of revenue collected for the transfer station. The following exhibit shows the total estimated cost of operating the transfer station, the number of transfer permits issued during FY '06, and the estimated cost of the transfer station on a permit basis. The transfer station permit fee of $100 per permit does not cover the cost of operating the transfer station.

EXHIBIT III-3
ACTUAL COST OF TRANSFER STATION ON A PERMIT BASIS (FY '06)

Transfer station expenses	$157,765.20
Number of transfer station permits issued annually	503
Estimated cost of service on a per permit basis (transfer station expenses divided by number of annual permits)	$313.64
Current permit fee	$100.00
Estimated annual permit cost minus current permit fee	($213.64)

The estimated cost per permit is not fully accurate since it does not include the revenues generated from the daily passes. However, the exhibit does illustrate that 33.7 percent of the cost of operation is covered by annual permit fee of $100 per permit. While this analysis does not include the permit fees collected for daily passes, it does include the cost of operating of the transfer station, including the cost of disposal of all materials.

The Town issues day passes which allow the disposal of solid waste at the transfer station at the cost of $10.00 per day. Since the Town does not weigh the material received for disposal by day passes holders, the effect of day passes on the cost of the transfer station operation cannot be fully determined. However, in FY '06, a total of 290 day passes were issued at the cost of $10 per day, for a total revenue of $2,900.00. While this amount represents 5.4 percent of the total revenue collected, the consultants suspect that the amount of disposed material which is generated from day passes is greater than the percent of operational revenues collected from the passes.

Day passes are typically issued to contractors working on local houses, or individual residents who might be cleaning out a house. Since the type of material generated from these situations is not normally household trash, it is safe to assume that the amount of material that is disposed is greater in volume than comparable household trash. The consultants assume that the actual amount that is collected for the day passes does not cover costs incurred by the Town. If the Town continues the transfer station operation, the day pass fee should be increased.

The consultants have analyzed the Town's cost of providing curbside collection service of solid waste and recyclables for its residents. Assumptions for this analysis include: the cost of hauling the roll–off containers from the transfer station is approximately $43,200 (see exhibits above); the balance of the collection contract equals the cost of curbside collection.

EXHIBIT III–4
ESTIMATED COST OF CURBSIDE COLLECTION AND DISPOSAL OF SOLID WASTE AND RECYCLABLES

ITEM	COST OF ITEM
Total contractual cost for collection	$205,000
Transfer station hauls	($43,200)
Estimated curbside collection costs	$161,800
Disposal of solid waste collected at curbside (1,229.81 tons x $64.00 per ton = $78,707.84	$78,707.84
Total curbside collection cost	$240,507.84
Revenue collected (stickers)	$80,277
Difference (expense minus revenue)	($160,230.84)

To quantify the cost on a per unit basis, we have made several assumptions, which include estimating the total number of households that could be serviced by a curbside collection program (approximately 2,200 households). We estimate that approximately 1,696 household use curbside pickup (2,200 households minus 503 transfer station permits = 1,696). The total number of stickers/bags sold for the curbside collection program yielded $80,277.00 and the cost for each sticker/bag was $1.00; the estimated number of bags/stickers purchased per household per year was 47 ($80,277 divided by 1,696).

Since the cost of the curbside collection program was $240,507.84 and the number of stickers sold during FY '06 totaled 80,277, sticker/bag revenue recovered approximately one–third of curbside collection costs. The actual cost of collection and disposal per sticker/bag was approximately $3.00. The annual cost of the curbside collection program per household served was approximate $142

(curbside collection costs of $240,507.84 divided by the estimated number of households serviced by curbside collection, 1,696).

If the Town chooses to eliminate the operation of the transfer station and only provide curbside collection to residents, the cost per household would be approximately $165 per year. To estimate this annual cost, the consultants assumed that the costs of the transfer station operation can be used to offset increases in curbside collection costs, e.g., additional trucks or collection trips required for the expansion of the curbside collection program. The curbside collection contract totaled $205,000 per year. The total waste collected and disposed totaled 2,450 tons. Based on these assumptions, the costs of a full curbside collection program are estimated below.

EXHIBIT III-5

COST OF FULL CURBSIDE COLLECTION

VOLUME OF SOLID WASTE

Solid waste collected	2,450 tons
Estimated weight per bag/barrel	30 pounds
Total number of bags generated	163,333
Total number of bags divided by 2,220 (estimated number of households) = bags per household per year	74.2

COST OF COLLECTION & DISPOSAL

Collection Costs	$205,000 (see Exhibit III-1)
Disposal Costs	$156,800 ($2,450 tons x $64.00 per ton)
Total Cost	$361,800

The per unit cost (cost per bag cost of $2.22) is determined by dividing the total cost of services by the total number of bags. Assuming 74.2 bags per year, per household, the annual cost per household would be $164.72 per year.

The analysis indicates that the estimated number of users of the curbside collection program is greater than the number of transfer station users. Morever, the cost of providing the transfer station is substantial when considering its usage. As a result, the Town should consider the elimination of one of the solid waste services currently provided to residents. Curbside collection is traditionally more convenient. It is recommended that the transfer station component of the solid waste collection system be eliminated. Curbside collection should be provided to all households.

The elimination of one method of solid waste service will lower the overall cost of providing solid waste and recycling services. Based on costs, convenience, and current citizen usage (curbside collection appears to be favored by the residents), it is recommended that the transfer station service be eliminated. Curbside collection of recyclables would promote more recycling by making it easier to recycle. Providing only one solid waste service would reduce the overall cost to the Town by approximately 10 percent, or approximately $40,000 annually. It should be noted that the elimination of the transfer station and day passes would require contractors, or residents with larger projects, to contract with a private vendor for dumpster services. In the short–term, the Town should immediately increase the day pass fees substantially. We assume that the day pass fees should be five to ten times the current fees.

In addition to direct cost savings, additional savings are possible since it will no longer be necessary to assign DPW employees to the transfer station. Some overtime costs will be avoided, since it will no longer be necessary to staff the transfer station on Saturdays.

It is also recommended that fees should be adjusted to cover the cost of solid waste collection, disposal, and recycling. The analysis above indicates that the average cost per household would be approximately $165.00 per year, per household. The Town should determine if it would like to promote a“ pay–as–you–throw” concept (the more you dispose the more you pay) or develop a system of monthly, quarterly, semi–annual, or annual collection of fees.

> ***RECOMMENDATION III-1:*** *The Town should provide solid waste services by one method, rather than by both curbside collection and the use of a transfer station.*

RECOMMENDATION III-2: *The Town should use curbside collection services.*

RECOMMENDATION III-3: *The Town should develop a system in which the costs of solid waste collection and disposal services are fully recovered by fees for service.*

RECOMMENDATION III-4: *The Town policy-makers should determine whether the Town should adopt a "pay-as-you-throw" policy, or develop a system of monthly, quarterly, semi-annual, or annual collection of fees.*

RECOMMENDATION III-5: *The Town should immediately increase the fees for day passes for the transfer station.*

IV. GENERAL MANAGEMENT AND OPERATIONS

HIGHWAY DIVISION OPERATIONS

The Highway Division is responsible for the maintenance of roadways and storm drainage systems. Personnel make repairs, patch potholes, repair drain lines, and perform other maintenance functions, including cleaning catch basins, sweeping streets and building or repairing sidewalks. A major function of the Highway Division is to provide snow removal services on Town roads.

The Town currently has approximately 35 miles of Town–maintained roadways. Of these 35 miles, approximately one to two miles are re–paved on an annual basis. Generally, bituminous asphalt roadways in New England have a useful life of 15 or more years. Assuming a 15–year life, the Town should be re–paving approximately 2.3 to 2.5 miles per year in order to keep pace with the average life expectancy of the roadways. In the Northeast, the average cost of annual maintenance of roads is $42,000 per mile; the average cost of reconstruction is $295,000 per mile. The development of a pavement management program to supplement a multi–year capital plan should be considered an important planning tool.

> ***RECOMMENDATION IV-1:*** *The Department should develop a systematic plan to re-pave approximately 2.3 to 2.5 miles of road each year.*

Funding for roadway pavement projects is principally provided by State highway funds, known as Chapter 90 funds. This source of funds, while usually stable, has been subject to uncertainty in annual allotments provided to towns in recent years. While the State legislature has made strong efforts to stabilize the allotments, relying solely on those funds can impede planned projects.

No specific request has been made for roadway repairs in the current year's budget. It is recommended that the Department develop an annual roadway repair plan for review by policy–makers. The roadway needs and repair plan should be developed and presented in a manner which shows anticipated needs for the next two or three years. This plan should also provide estimates of costs and be revised annually.

Snow removal is a major function of the Highway Division. When there is a major storm with a significant snowfall, the Highway Division's performance is critical to public safety services in the Town. Some public works departments have developed written policies establishing priorities and policies. The snow and ice removal policy should specify the chain of command and provide general guidelines for Town officials and snow removal personnel.

> ***RECOMMENDATION IV-2:*** *The Department should develop a written snow removal plan.*

During snow and ice removal operations, the Department uses employees from the Highway Division, Water and Sewer Division, and Cemetery Division to provide snow plowing. The Town also employs a number of private contractors to complement the Town's resources. As we understand current practices, there are few pre–defined routes for Town or private trucks. As a result, some overlap in plowing occurs. In addition, several areas of the Town need either specialized equipment or smaller trucks to service narrow streets.

The lack of a well–defined snow removal plan can cause scheduling confusion. An effective program requires attention to the unique details of the Town, such as narrow streets. It is our understanding that the wrong type of vehicles have been directed into some of the narrow streets on a number of occasions, which caused a considerable amount of damage to abutting properties. This operational confusion should be addressed immediately.

The proposed position of Operations Manager should assume responsibility for the oversight of snow and ice removal. The Operations Manager should work with Foremen to identify and develop a specific snow removal plan which addresses the unique roadway issues in the Town.

> ***RECOMMENDATION IV-3:*** *The proposed position of Operations Manager should work with division supervisors to develop a specific snow removal plan which addresses the unique characteristics of the Town.*

> ***RECOMMENDATION IV-4:*** *The Department should develop the snow removal plan and necessary policies prior to next winter.*

It is our understanding that the Highway Division does not own a front–end loader and relies on a rental from a private contractor to provide operational services, such as loading sanders, loading snow into trucks from the downtown area, and stockpiling snow at the local snow dumps. These functions should be performed by Town personnel, assuming that proper equipment is available. A front–end loader is normally an important element of a public works equipment fleet.

The Town should seriously consider acquiring a front–end loader. A loader could be used for a number of functions beyond snow removal, including loading trucks with gravel or road maintenance materials, removal of trees that might have fallen during storms, working on drainage projects and other year–round operational functions.

Over that past three years, the cost of hired equipment has averaged forty–three percent of the Town's entire snow removal budget. This is a significant cost and one that might be reduced with the purchase of proper equipment and careful planning.

An appropriately sized loader for the Town could be purchased for approximately $150,000 and would have a life expectancy of at least ten years. Thus, the annualized cost of a loader would be $15,000, plus associated fuel and maintenance costs. This cost of the loader would be offset by avoiding the rental similar equipment.

RECOMMENDATION IV-5: *The Department should purchase a front-end loader.*

RECOMMENDATION IV-6: *The Department should budget approximately $150,000 to purchase the front-end loader.*

A review of equipment purchases suggests the need to develop a team approach for determining the appropriate equipment to purchase. The Department had recently purchased a truck with a sander. While this certainly serves the Town well during snow removal operations, the Town did not purchase a dump body for this vehicle and thus, the truck cannot be used for other operational services. This was a miscalculation which can be corrected by the purchase of a dump body and the necessary hydraulic equipment.

RECOMMENDATION IV-7: *The Department should purchase a dump body with necessary hydraulic equipment for use on the recently purchased truck.*

As a matter of policy, the Department should seek to purchase equipment which can be used for several purposes to maximize efficiencies. For example, rather than purchasing a dump truck with a slide–in sander, a truck could be purchased with a combination body or one that doubles as both a dump body and sander without making modifications. Thus, it would not be necessary to install a slide–in body or change from a dump body to a truck mounted sander. Using this approach, the vehicle would be ready for service almost immediately. Other examples of efficiencies include the purchase of adjustable plows for all equipment instead of one–way plows for the larger trucks. Larger trucks could clean intersections efficiently, saving time and improving productivity. The Department should, given its limited staffing, purchase equipment and vehicles that improve productivity and maximize available staff resources.

RECOMMENDATION IV-8: *The Department should, when possible, purchase equipment which may have multiple uses, to increase flexibility and productivity.*

Purchases of vehicles and major pieces of equipment should be a collaborative effort between management, supervisors, and employees. At a minimum, input should be sought from Highway Division and other staff to determine the benefits or disadvantages of a particular vehicles and equipment. Employees are often able to identify replacement equipment which improves productivity. The development of a collaborative process for equipment purchasing decisions will result in more thoroughly researched determinations. The Operations Manager should be responsible for working with employees and supervisors to identify the type of equipment that should be purchased.

RECOMMENDATION IV-9: *The Department should use a collaborative process to help determine the type of vehicles and equipment that Town should purchase.*

WATER AND SEWER DIVISION OPERATIONS

The Water and Sewer Division has three positions, Foreman, Secondary Operator, and Skilled Laborer. The Division focuses on maintenance of the system,

repairs to failed components, replacement of water meters, reading water meters, recording consumption for billing purposes, and emergency repairs.

Water meters are read four times a year. During the meter reading periods, two employees read meters for a two–week period of time. Sixteen weeks of staff time, or 640 work hours, are utilized reading meters. During these meter reading periods, other work performed by the division is limited, except for emergency repairs. During the meter reading process, personnel should identify meters that are no longer working properly and damage to outside remote readers.

RECOMMENDATION IV-10: *The Department should identify non-functioning water meters during the quarterly reading process.*

A program should be developed to replace or repair non–functioning meters as soon as possible. Meters that are not functioning could result in a significant loss of revenue for the Town. If a significant number of meters are identified as no longer functioning, the Town should consider a number of options. First, the Town should consider establishing a systematic approach to replace non–functioning water meters. Assuming field personnel receive assistance from office staff in scheduling the appointments for meter replacement, it should be possible for field personnel to schedule replacements of meters one day each week.

RECOMMENDATION IV-11: *The Department should develop a program of systematic water meter replacement.*

Residents must be encouraged and, if necessary, compelled to comply with the replacement of the meters. If a replacement program is developed, the Town should implement strict measures up to and including terminating service if residents continually fail to respond to meter replacement notices.

Requiring the Division to participate in a systematic meter replacement program may be difficult. However, there are several approaches which should be considered by the Department. One approach to developing the meter replacement program is to employ one additional employee with responsibility for reading meters and replacing meters that are not working. Another approach is to adopt a program in which the Town would install and replace all water meters with a type of meter that could be read remotely, using a truck–mounted computerized reader that captures the readings by radio signals. The development of such a system is

a sizable capital investment and would require a capital funding method. Funding options include increasing rates to generate the necessary capital funds and implementing the program over a number of years, or bonding this capital expense for the entire project and repaying the project over a ten to 15–year bond repayment period. The payback for a meter replacement program is generally relatively rapid, since billing is more accurate and efficient.

Depending on the number of non–functioning meters, the most prudent approach may be to replace all meters in a systematic manner. Thus, consideration should be given to employing a contractor to supply and install water meters. Assuming that there are approximately 2,000 customers, the cost of meter replacement should be between $350, 000 and $450,000.

> ***RECOMMENDATION IV-12:*** *The Town should consider alternative methods of replacing meters, including employing a staff person with responsibility for meter installation and meter reading, or employing a company to supply and replace all water meters.*

The consultants recommend that the Town employ a firm to replace all water meters. In addition, the Town should hire one additional employee for the Water and Sewer Division. The employee would read and replace meters and serve as a member of the work crew, performing the work of a Skilled Laborer. An additional Skilled Laborer would cost approximately $48,000 to $50,000 annually, in salary and benefits.

The Department should purchase a dedicated a vehicle for meter reading and replacement which is outfitted with the necessary basic equipment. The cost of a new vehicle could be as low as $20,000 for a small pick–up truck with basic equipment.

> ***RECOMMENDATION IV-13:*** *The Department should purchase a small pick-up truck with basic equipment for purposes of meter reading and meter replacement.*

The Water and Sewer Division, the Highway Division, and the Cemetery Division share a backhoe. While sharing equipment is desirable, the Department should have an additional backhoe. Given the range of services provided by the Town, having a shared piece of equipment may limit the operations of both

divisions. For example, if the Highway Division is in the middle of repairing a drain line or catch basin and a roadway has been closed to accomplish this repair and, simultaneously, a water main breaks leaving a portion of the Town without water, it would be in the best interest of operations to make a timely repair on the water main. That would require supervisors to stop work on the drain repair and reassign resources to make the water main repair.

A cost–effective approach to increasing the availability of a backhoe is to keep the current backhoe in the fleet inventory, in usable condition. When the current backhoe is scheduled for replacement, it should be retained and housed within the Water and Sewer Division. This would allow the Town to build its equipment fleet with minimal cost. To further reduce the impact on the budget, a backhoe could be purchased through a lease–purchase arrangement with a three or four–year payment schedule.

Purchase of equipment, such as a backhoe, is also possible under the Chapter 90 program. While this approach has merit, purchasing equipment with Chapter 90 monies reduces the amount available for roadway repair and maintenance.

> ***RECOMMENDATION IV-14:*** *Purchase a new backhoe (as planned) and keep the old backhoe as a back-up piece of equipment.*

The Town has seven types of fire hydrants. Generally, the Town should use one type of standard hydrant to avoid the need to stock repair and replacement parts for seven types of hydrants. The Town should select one standard type of hydrant and gradually replace all units with the same type of hydrant.

> ***RECOMMENDATION IV-15:*** *The Department should select one type of fire hydrant and replace all units with the same type of hydrant, over time.*

CEMETERY DIVISION OPERATIONS

The Cemetery Division maintains five cemeteries (two inactive and three used for burials), including the spring and fall cleanups, mowing the grass and preparing grave sites for burial. The responsibilities of this Division also include the maintenance of school athletic fields, beaches, and park areas near municipal buildings. In addition, the Cemetery Division assists with tree cutting and snow

plowing operations. The Cemetery Division employs a Foreman, two Skilled Laborers, and a Mechanic who is shared with the Sewer Treatment Division. Staff are supplemented with seasonal employees. Personnel report that there has been difficulty employing seasonal personnel because of low hourly wages.

The large number of fields, cemeteries, and parks maintained by the Cemetery Division requires the Division's staff, and three seasonal employees, to mow grass five days per week during summer months. Two seasonal employees help collect trash from barrels located at the parks and beaches. The substantial amount of time devoted to mowing grass suggests that the Division should evaluate the effectiveness of the type of equipment used. More efficient equipment may eliminate some of the need for seasonal labor.

The Division shares a backhoe with the Highway Division and Water Division. As we have suggested above, the Town should have a primary backhoe and a back–up backhoe. The current backhoe should be retained as a back–up piece of equipment when a new backhoe is purchased.

The current cemetery garage (see Section V of this report) does not have any separation between the garage area and the office area where citizens come in to make arrangements for burials. The current area office area does not create an appropriate atmosphere for grieving families when making arrangements.

RECOMMENDATION IV-16: *The Department should change the name of the Cemetery Division to the Cemetery and Park Division.*

RECOMMENDATION IV-17: *Evaluate the type of equipment used for mowing fields and cemeteries.*

RECOMMENDATION IV-18: *Review the pay scales of seasonal personnel.*

RECOMMENDATION IV-19: *The Department should find a more appropriate location from which to sell grave sites. (See Section V.)*

VEHICLES AND EQUIPMENT

The Department of Public Works fleet of equipment and vehicles appears to be reasonably well maintained and generally appears to be the type and amount

of equipment appropriate for its mission. The Town appears to have made reasonable efforts to maintain a sound fleet of vehicles. Since 2000, the Department has purchased 14 vehicles or pieces of major equipment. Exhibit IV-1 presents the vehicle and equipment inventory of Department.

EXHIBIT IV-1
VEHICLE AND EQUIPMENT INVENTORY

DIVISION	UNIT NO.	YEAR	VEHICLE MAKE/MODEL	TYPE	COST
CEMETERY					
	32	1998	Chevrolet GMT 400 Dump	1-ton dump	29,601
	20	2005	Ford 1-ton F-350	1-ton dump	33,500
	28	1995	GMC Sierra K3500	pick-up	20,000*
	27	2002	Chevrolet K3500	small dump	36,000
		1999	Bobcat Loader	small tractor	44,000
		2000	Townmaster Utility Trailer	trailer	4,000
		unknown	Belmont Trailer	trailer	2,500
		1987	Trailer		4,000
HIGHWAY					
	16	1996	Chevrolet Cab/Chassis	dump truck	36,685*
	24	2002	International 4900	dump truck	45,065
	22	2002	International 4900	dump truck	45,945
	10	2003	International	dump truck	83,000
	14	2006	Ford F-550 1-ton dump	1-ton dump	40,000
	18	1994	Chevrolet Kodiak 6H	dump truck	23,127*
	7	1996	Ford F-250	pick-up	24,229
		2003	Silverado Pick-up	pick-up	27,500
	MT	1995	Trackless	utility tractor	50,000
		1985	Mitsu Tractor		14,000
		1987	Trailer		4,000
		2002	Bombardier Tractor		81,750
HIGHWAY/CEMETERY (SHARED)					
	30	1999	Cat Backhoe/Loader	backhoe/loader	55,681
		2000	Bandit Chipper	chipper	20,410
		2000	Ingersol Compressor	compressor	13,550
SEWER					
	26	1992	GMC Sierra K3500	pick-up	19,463
WATER					
	44	2003	Ford 1-Ton F-450	1-ton dump	47,000
	46	2003	Ford Utility Truck	pick-up	35,000
	40	2006	Chevrolet K3500 Utility	pick-up	37,000
		1985	Linds Compressor		4,500

* Replacement requested.

Exhibit IV–2 identifies types, or classes, of vehicles and provides the generally accepted standard for a replacement cycle. It is important to recognize that the application of these general guidelines is the first step in developing a replacement program.

EXHIBIT IV–2
VEHICLE REPLACEMENT CYCLE BENCHMARKS

TYPE OF VEHICLE	REPLACEMENT CYCLE
Dump truck	15 years or 100,000 miles
Loader/Backhoe	12 years or 3,000 hours
Pick–up truck (½–ton)	12 years or 75,000 miles
Pick–up truck (¾–ton)	12 years or 75,000 miles
Pick–up truck (1–ton)	12 years or 75,000 miles
Utility vehicle	10 years or 60,000 miles
Van	8 years or 80,000 miles
Administration vehicle	8 years or 80,000 miles

When the replacement of a particular vehicle or piece of equipment is planned, the Department's leadership should consult with the individuals who operate and supervise the operation of the vehicle or piece of equipment to be replaced. Personnel who operate equipment often have useful information on what is needed to accomplish tasks in an appropriate and safe manner.

The equipment and vehicle replacement plan should be summarized in an annual report, or spreadsheet which identifies the vehicle, the year of manufacture, a description (e.g., model), mileage, anticipated trade–in cycle, organizational unit to which a vehicle or equipment is assigned, and the desired year for replacement. This report should be provided to officials each year and will allow officials to build equipment replacement into the capital plan of the Town.

Software is available that will automatically record mileage at the fueling depot and also calculate the maintenance costs, with minimal input time by office staff. An example of a fleet replacement program spreadsheet is shown as Exhibit IV–3.

EXHIBIT IV–3
SAMPLE VEHICLE REPLACEMENT CYCLE INVENTORY SPREADSHEET

VEHICLE	YEAR	DESCRIPTION	MILEAGE	TRADE-IN CYCLE	DIVISION	2008	2009	2010	2011

In addition to the general standards which measure vehicle and equipment life, actual maintenance and repair costs are required to develop a replacement program. The Department should develop records on the operation and repair costs of vehicles and equipment. Information should be organized to allow evaluation of costs. Exhibit IV–4 displays an example of a vehicle operating cost spreadsheet.

EXHIBIT IV–4
VEHICLE OPERATING COST SPREADSHEET

YEAR	ANNUAL MILEAGE	MILEAGE PER GALLON	REPAIR COST PER YEAR	FUEL COST PER GALLON	OPERATING COST PER YEAR	OPERATING COST PER MILE
2000						
2001						
2002						
2003						
2004						
2005						
2006						
Total						

RECOMMENDATION IV-20: *The Department should develop and present systematic data on vehicle and equipment use to ensure a systematic replacement of equipment and vehicles.*

MUNICIPAL INFRASTRUCTURE REPORT

The Department should begin the process of developing a comprehensive municipal infrastructure report (MIR). The MIR is a document that consolidates data about the condition of the Town's infrastructure. This report not only describes the condition of the assets of the Town, but also defines the nature of the work required on each asset. The Public Works Department should develop the MIR in cooperation with other Town departments.

The MIR should contain the following information:

- A detailed list of all components of the Town's public works assets (e.g., roads, sidewalks, drainage system, sewer lines and related facilities, public shade trees, traffic signals and signs, bridges and culverts, etc.)

- An assessment of each component of the Town's infrastructure, including a description of its condition, expected life, estimated maintenance costs, and replacement cost.

- A ranking of each component, which assesses replacement and repair based on a systematic analysis and priorities established in an objective manner.

As part of the MIR, the Public Works Department should ideally develop:

- A pavement management plan
- A sidewalk management plan
- A handicapped ramp inventory, which includes installation priorities
- A new sidewalk management plan which establishes priorities based on residential and school department input
- A comprehensive bridge and culvert management program
- An intersection evaluation report for signalized and un–signalized intersections
- An inventory of all wastewater collection system assets, along with flushing and inspection schedules, which in turn will assist in the development of repair listings for deteriorated manholes
- An inventory of all public shade trees

Much of the data for the MIR may be found in engineering reports prepared for the town and in other documents. The MIR helps a town develop a clear plan by presenting infrastructure conditions, needs, and replacement cost information. Moreover, the town can begin selecting projects for funding, using a priority system.

Conducting a comprehensive inventory of all assets can be time–consuming; we suggest that the Town focus on gathering and presenting information on principle elements of the Town's infrastructure, including roadways, water lines and related structures, and the sewer system.

> ***RECOMMENDATION IV-21:*** *The Department should develop a Municipal Infrastructure Report which inventories and evaluates each element of the Town's infrastructure.*

HUMAN RESOURCES MANAGEMENT

Public works functions are often labor intensive operations which require employees to have specific knowledge and ability to perform job functions. In addition, because public works functions are often driven by specific priorities and emergencies, developing a system of accountability for Division supervisors is essential. It is also important to understand the typical availability of personnel. Generally, an employee using authorized leave and other benefits can be expected to work approximately 80 to 85 percent of the days scheduled. The following is an estimate of time the average public works employee (includes operational units only) in Manchester–by–the–Sea works annually.

EXHIBIT IV–5
EMPLOYEE AVAILABILITY (HOURS)

Average hours worked per year	2,080
Authorized leave time	
Average vacation leave	149
Average sick leave	48
Average personal leave	24
Holidays	96
Average hours of leave time per employee per year	317
Total estimated hours worked	1,763

Our review of selective sick leave records indicates that a number of employees have accrued a great deal of sick time; other employees have not. This suggests that closer monitoring of authorized leaves should be considered. In addition, the Director and the Operations Manager should hold a formal meeting with each division supervisor annually to discuss the supervisor's performance and the expectations of the Director and the Operations Manager.

The Operations Manager should be responsible for reviewing attendance and overall employee performance. Any corrective action, or disciplinary action, should be discussed by the Director of Public Works and the Operations Manager. Working with division supervisors, the Operations Manager should also be responsible for identifying the training and professional development needs of each division and each employee. The Operations Manager should attempt to provide professional development opportunities for each employee annually.

> ***RECOMMENDATION IV-22:*** *The Operations Manager should be responsible for overseeing employee performance and assessing the professional development needs of employees.*

V. PUBLIC WORKS FACILITIES: A LONG-TERM IMPROVEMENT PLAN

LOCATION AND GENERAL CONDITION OF FACILITIES

The various Department of Public works divisions are housed in five locations throughout the town. The decentralization of facilities and personnel makes communication among divisions difficult. The consultant's visual inspection indicated that, in general, the current facilities are not adequate. Garages used to house equipment lack space and there are insufficient areas and facilities for the employees.

CEMETERY DIVISION

The cemetery building has an office area, an area for storage of supplies and equipment, and a bathroom. The building is crowded and does not segregate the office area from the area used for the repair of equipment. The office area is used when meeting with families for discussions relative to purchasing lots or making arrangements for funerals. The general office area is also used as an employee lunch facility.

It is recommended that office areas and work areas be separated. Ideally, the entire Cemetery Division should be relocated to a more centrally located Public Works facility that could house all of the operational divisions and the Administration Division.

HIGHWAY DIVISION

The highway facility is a concrete block building constructed in 1976 and currently serves as the main garage for the Highway Division. The facility has a garage area used for the storage and repair of vehicles, a rest room, and a kitchen/lunch room. In general, this facility is in a relatively good condition. However, the size of the garage appears to be less than adequate as evidenced by the need to store equipment outside.

The facility is large enough to provide storage for most vehicles and equipment. However, certain smaller pieces of equipment and some supplies are located in an adjacent facility. The adjacent facility is an older wooden structure known as the Honey Wagon Garage. This garage is not heated and is generally in poor condition. Additional covered areas are located on–site and provide

additional storage areas for items such as signs, tires, small tools, and miscellaneous equipment. While this building provides an area for storage of various materials, the structure has problems with sagging and settling of the door frames which makes opening and closing doors difficult.

A salt shed which was built in the 1980s is also located on the site of the highway facility. The salt shed appears to be in reasonably good condition.

WATER AND SEWER DIVISION

The Water and Sewer Division has both distribution facilities and operations facilities. The distribution facilities consist of the water filtration plant, Moses Hill Water Tank, Round Pond Pumping Stations 1 and 2, and the Lincoln Street Well Building. These buildings house equipment and supplies for the treatment and distribution of water to the customers. The conditions of these distribution facilities should be evaluated through a separate facilities planning study to determine the adequacy of each of facility for its intended purpose.

"Home Station," as it is known, serves as the main garage and office for the division. This facility is an older brick building that contains three garage bays for the storage of vehicles, an area for storage of equipment and supplies, an office area, and a rest room. The condition of this building appears to be generally poor and the building is susceptible to flooding during periods of heavy rains and spring melts.

SEWER TREATMENT DIVISION

The sewer treatment plant was constructed in 1999. The facility appears to be in excellent condition and should serve the needs of this division for many years.

ADMINISTRATION DIVISION

The office and storage space for the Administration Division is located at the Town Hall. The office is small and provides no private office for the Director. The office area appears to be inadequate for the operations of the Department. Residents also enter the general area where the Director's desk is located to conduct business with other staff.

The facilities used by the Department have many of the problems that other towns have with older public works facilities. Poor facilities can have an effect on the Department's ability to provide coordinated services to the community.

The Town's public works buildings, generally, have the following types of problems.

- *Inadequate shop and garage space* - The amount of garage and shop space does not comply with contemporary standards.

- *Decentralization of facilities* – Decentralized operations result in inefficient operations and affect coordination.

- *Limited office facilities* – Office, meeting and administrative space is limited. There are few private offices.

- *Lack of personnel support areas* – Facilities lack adequate personnel support areas, such as locker rooms, showers, toilet facilities, lunch rooms, or training facilities.

- *Limited storage areas* – Lack of interior storage areas for vehicles, equipment, tools and supplies results in storing some supplies and equipment outside.

While it is difficult for the Town to address space needs concerns at this time, a review of facilities to identify and mitigate any code and or safety problems should be considered. The following issues should be reviewed.

- *Building Code* – Existing buildings may not conform to current building code regulations or environmental regulations.

- *Sanitary facilities* – Sanitary facilities may not meet current plumbing code requirements.

- *Ventilation of area*s – Shop and vehicle storage areas should be reviewed to ensure proper ventilation in order to minimize unhealthy work conditions for employees.

- *Fire protection systems* – Facilities should be reviewed to ensure that they have adequate fire protection or suppression systems.

In the long–term, the Town should consider a consolidated public works facility to achieve the following goals.

- *Operational improvement* – In general, a new facility would improve the overall operations of the Department. A new facility would also increase vehicle life, improve snow removal response times, provide a code compliant building, and provide safer working conditions for all employees.

- *Indoor air quality improvement* – A new building would improve the indoor air quality, thus creating a healthier environment for employees.

- *Productivity improvement* – Proper facilities would reduce labor costs associated with redundant operations.

- *Ventilation and hazardous materials disposal improvement* – Modern public works facilities are constructed to comply with vehicle exhaust removal requirements and have the capability for appropriate disposal of motor oils and antifreeze.

- *Regulatory compliance improvement* – A new facility would comply with the latest regulatory requirements, such as having a vehicle washing facility that complies with environmental regulations.

- *Drainage and storm water control improvement* – The site of a new facility would have improved drainage and storm water controls. Current requirements for storm water control would be met and would require that the water is collected and treated in a closed system.

- *Parking location improvement* – Employee parking would be segregated from public works operational areas for safety reasons.

FACILITY SIZE AND ESTIMATED COSTS

Exhibits V–I and V–2 identify general space need guidelines, estimated space needed by the Department, and estimated facility costs. Cost information is derived from actual bid documents. The first exhibit presents general space guidelines for public works facilities. The second exhibit presents approximate space required in Manchester–by–the–Sea. The third exhibit estimates the cost of a new facility. The estimated $10 million cost makes the development of a new facility cost prohibitive.

EXHIBIT V–1
SPACE NEED GUIDELINES * (SEE NOTES)

STANDARD	NO. OF UNITS	SQ. FT. REQUIRED
643 sq. ft. per administrative employee	3	1,929
118 sq. ft. per operations employee	14	1,652
3,682 sq. ft. per shop (including maintenance facilities)	1	14,728
824 sq. ft. per vehicle/equipment (rolling stock)	22	18,128
3,154 sq. ft. for truck wash	1	3,154
Total		39,591

EXHIBIT V–2
ESTIMATED FACILITY COSTS * (SEE NOTES)

TYPE OF FACILITY	SQ. FT.	COST PER SQ. FT.	COST
Administration/Employee Facilities	3,581	256	$916,736
Shops	11,046	213	$2,352,798
Vehicle Maintenance	3,682	263	$968,366
Truck Wash	3,154	192	$605,568.
Vehicle/Equipment Storage	18,128	192	$3,480,576
Subtotal (buildings and equipment)			$8,324,044
Site (acres)	4	200,000	$800,000
Salt/Sand Sheds		150,000	$150,000
Subtotal (buildings, equipment & site costs)			$9,274,044
Contingency (15%)			$1,391,107
Escalation (8%)			$111,289
Total Construction Cost			$10,776,439

* Notes associated with Exhibits V-1, V-2, and V-3

1. When determining the number of vehicles, all pick-ups, sedans, large trucks, tractors, and construction equipment are included; small equipment, such as trailers, sidewalk plows, mowers, etc., are not included. The smaller pieces of equipment are assumed to be included in the general guidelines.
2. Other includes open canopies for cold storage or sander body storage.
3. Space calculations do not include staff housed or working at the sewer treatment plant, since facilities are in good condition.

Source of information: The above information relative to space needs and projected costs was used with permission of Jeff J. Alberti, Senior Project Manager for Weston & Sampson Engineers, Foxborough, Massachusetts. The estimated costs per square foot are based on recent figures from actual bids through December 2006.

We understand that the Town does not have the resources to replace or consolidate public works facilities. However, the Town may need to make selected improvement of current facilities for safety or health reasons. We have provided a summary of the basic needs of the Department.

RECOMMENDATION V-1: *The Town should develop a long-term plan to improve the condition of public works facilities (five, ten, or more year plan).*

RECOMMENDATION V-2: *The Department of Public Works should identify code and safety concerns within facilities and budget for necessary repairs.*

RECOMMENDATION V-3: *The Director of the Department of Public Works should be provided with a private office and work space.*

VI. IMPLEMENTATION OF RECOMMENDATIONS

This report provides a number of recommendations which represent a plan for the future development of the Manchester–by–the–Sea Department of Public Works. Many of these recommendations require policy decisions by officials and will require some discussion; other recommendations require little discussion and can be implemented rather rapidly. The recommendations requiring immediate attention are:

- *The position of Operations Manager should be created.* The Operations Manager should directly supervise and coordinate the work of the service delivery units of the Department. Important direct benefits of this recommendation include:
  - The daily work will be more carefully organized and supervised.
  - The Director of Public Works will have more time to devote to planning for the future.

- *The type of solid waste and recycling services should be evaluated.* Discontinue the practice of collecting solid waste and recyclables at the transfer station. Provide solid waste and recycling services through curbside pick–up only.

- *The solid waste and recycling services of the Town should be self-sufficient.* The solid waste and recycling program of the Town should generate sufficient revenue in fees to cover the cost of providing those services.

Direct benefits will accrue from the implementation of these solid waste and recycling recommendations.

- The curbside collection of solid waste and recycling will be more efficient and the Town will receive some cost savings.

- The implementation of a self–supporting solid waste collection and disposal service will eliminate the need to fund solid waste collection and disposal services from the property tax.

The Board of Selectmen should adopt a plan of action to implement recommendations that can be accomplished over the next several years. A proposed plan of action is described briefly below.

PLAN OF ACTION

A number of major tasks should be accomplished during the next 18 months. The Selectmen should consider the time line shown in Exhibit VI–1.

EXHIBIT VI–1
TIME LINE FOR IMPLEMENTATION OF SELECTED RECOMMENDATIONS

	TASK	TIME LINE
1	Town Administrator and Selectmen recruit and select a new Director of Public Works.	3 to 4 months
2	Director of Public Works recruits and selects an Operations Manager.	9 to 12 months
3	Director clarifies chain of command.	12 months
4	Town policy–makers review the solid waste collection and disposal process.	6 to 9 months
5	Town policy–makers increase the fee for day passes for use of the transfer station.	1 to 2 months
6	Director and Operations Manager develop a snow removal plan and policy.	6 months
7	Director budgets for purchase of front–end loader.	12 months
8	Department and policy–makers consider a water meter replacement plan.	12 to 15 months
9	Department develops a hydrant replacement plan.	12 to 15 months
10	Department evaluates lawn mowing equipment.	6 to 8 months
11	Department begins collecting and recording cost data on vehicles and equipment.	12 to 14 months
12	Department begins developing an Infrastructure Management Report.	12 to 16 months

GENERAL FINANCIAL IMPACT OF RECOMMENDATIONS

Estimated costs, savings, and revenue associated with recommendations are displayed in Exhibit VI–2.

EXHIBIT VI–2
ESTIMATED COSTS, SAVINGS, AND REVENUE ASSOCIATED WITH RECOMMENDATIONS

POSITION	ESTIMATED COSTS, SAVINGS, OR REVENUE	COMMENTS
Create the Operations Manager position	Cost of $84,500 to $97,500	Includes benefits @30% of salary
Authorize one Skilled Laborer position	Cost of $52,000	Includes benefits @30% of salary
Adopt curbside collection Close transfer station	Savings of $40,000	Upon closure of the transfer station, some savings are possible because of the reassignment of personnel
Develop fee to cover cost of waste and recycling collection and disposal	Revenue of $363,000	Fee calculation is required; estimated fee for curbside collection would be approximately $165 per household
Purchase a front-end loader	Cost of $150,000	Loader has a useful life of 10–12 years
Replace water meters	Cost of $350,000 to $450,000	Cost will depend on method of replacement
Evaluate type of mowing equipment used and purchase more efficient equipment	Costs are unknown, savings are possible if fewer seasonal personnel are required	Depends on evaluation of use and type of mowers
Construct a private office for the Director of Public Works and improved office space for cemetery lot sales	Unknown	Depends on availability of space and location

The following exhibit estimates the cost of implementing recommendations over the next six fiscal years.

EXHIBIT V-3
ESTIMATED COST OF RECOMMENDATIONS BY YEAR (IN CURRENT DOLLARS)

ITEM	FY '08	FY '09	FY '10	FY '11	FY '12	FY '13
Operations Manager	$84,500 - $97,500 annual cost with salary increases					
Skilled Laborer			$52,000 annual cost with wage increases			
Purchase a front-end loader			$150,000 *			
Water meter replacement			$350,00 to $450,000 *			

* Amortized over five to 10 years.

PRIORITY OF RECOMMENDATIONS

The major recommendations are listed below in the order they are presented in this report, along with assigned priorities. In addition selected comments are made indicating the official responsible for implementing the recommendation. The recommendations contained in this report have been categorized as follows:

Priority 1: Recommendations which establish the framework for other recommendations or directly affect the safety of personnel or the public. These recommendations need to be addressed immediately.

Priority 2: Recommendations which should be implemented without delay, since they may bear directly on productivity and efficient operation of Department of Public Works services in the Town of Manchester-By-The-Sea.

Priority 3: Recommendations which are important to the efficient provision of public works services in the Town of Manchester-By-The-Sea and which should be implemented as soon as reasonable and practical.

EXHIBIT VI-4
IMPLEMENTATION OF RECOMMENDATIONS

	RECOMMENDATION	PRIORITY	OFFICIALS RESPONSIBLE FOR IMPLEMENTING RECOMMENDATIONS
II-1	The Town should create the position of Operations Manager to oversee field operations of the Department.	1	Selectmen & Town Administrator
II-2	The compensation for the Operations Manager should be between $65,000 and $75,000.	1	Selectmen & Town Administrator
II-3	The Town should redefine the role of the Director of the Department of Public Works.	1	Selectmen, Town Administrator & Director of Public Works
II-4	The Department of Public Works should realign the Department's chain of command when the proposed position of Operations Manager is filled.	2	Director of Public Works
II-5	The Department's chain of command should be as follows: ▸ The Operations Manager, the Assistant to the Director, and the Accounts Clerk should report to the Director of the Department of Public Works. ▸ The Highway Foreman, the Cemetery Foreman, the Water and Sewer Foreman, and the Chief Operator should report to the Operations Manager.	1	Director of Public Works
II-6	The Town should conduct an aggressive search for the position of Director of Pubic Works.	1	Selectmen & Town Administrator
III-1	The Town should provide solid waste services by one method, rather than by both curbside collection and the use of a transfer station.	2	Selectmen, Town Administrator & other officials
III-2	The Town should use curbside collection services.	2	Selectmen, Town Administrator & other officials
III-3	The Town should develop a system in which the costs of solid waste collection and disposal services are fully recovered by fees for service.	3	Selectmen, Town Administrator & other officials, including finance officials
III-4	The Town policy-makers should determine whether the Town should adopt a "pay-as-you-throw" policy, or develop a system of monthly, quarterly, semi-annual, or annual collection of fees	3	Selectmen, Town Administrator & other officials, including finance officials

III-5	The Town should immediately increase the fees for day passes for the transfer station.	1	Selectmen & Town Administrator
IV-1	The Department should develop a systematic plan to re-pave approximately 2.3 to 2.5 miles of roads each year.	2	Selectmen, Town Administrator & other officials, including finance officials
IV-2	The Department should develop a written snow removal plan.	1	Director of Public Works
IV-3	The proposed position of Operations Manager should work with division supervisors to develop a specific snow removal plan which addresses the unique characteristics of the Town.	2	Operations Manager
IV-4	The Department should develop the snow removal plan and necessary policies prior to next winter.	2	Operations Manager & Director of Public Works
IV-5	The Department should purchase a front-end loader.	2	Director of Public Works
IV-6	The Department should budget approximately $150,000 to purchase the front-end loader.	2	Director of Public Works
IV-7	The Department should purchase a dump body with necessary hydraulic equipment for use on the recently purchased truck.	2	Director of Public Works
IV-8	The Department should, when possible, purchase equipment which has multiple uses, to increase flexibility and productivity.	1	Director of Public Works & Operations Manager
IV-9	The Department should use a collaborative process to help determine the type of vehicles and equipment the Town should purchase.	3	Director of Public Works & Operations Manager
IV-10	The Department should identify non-functioning water meters during the quarterly reading process.	1	Water Department personnel & Operations Manager
IV-11	The Department should develop a program of systematic water meter replacement.	2	Selectmen, Town Administrator & Director of Public Works
IV-12	The Town should consider alternative methods of replacing meters, including employing a staff person with responsibility for meter installation and meter reading, or employing a company to supply and replace all water meters.	2	Selectmen, Town Administrator & Director of Public Works
IV-13	The Department should purchase a small pick-up truck with basic equipment for purposes of meter reading and meter replacement.	3	Director of Public Works

IV-14	Purchase a new backhoe (as planned) and keep the old backhoe as a back-up piece of equipment.	2	Director of Public Works & Operations Manager
IV-15	The Department should select one type of fire hydrant and replace all units with the same type of hydrant, over time.	3	Operations Manager & Water Department Personnel
IV-16	The Department should change the name of the Cemetery Division to the Cemetery and Park Division.	3	Board of Selectmen
IV-17	Evaluate the type of equipment used for mowing fields and cemeteries.	1	Operations Manager & Park and Cemetery Personnel
IV-18	Review the pay scales of seasonal personnel.	2	Town Administrator & Director of Public Works
IV-19	The Department should find a more appropriate location from which to sell grave sites. (See Section V).	2	Director of Public Works
IV-20	The Department should develop and present systematic data on vehicle and equipment use to ensure a systematic replacement of equipment and vehicles.	3	Operations Manager & Mechanics
IV-21	The Department should develop a Municipal Infrastructure Report which inventories and evaluates each element of the Town's infrastructure.	2	Director of Public Works, Operations Manager & division supervisors
IV-22	The Operations Manager should be responsible for overseeing employee performance and assessing the professional development needs of employees.	2	Operations Manager
V-1	The Town should develop a long-term plan to improve the condition of public works facilities (five, ten, or more year plan).	3	Board of Selectmen & other policy-makers
V-2	The Department of Public Works should identify code and safety concerns within facilities and budget for necessary repairs.	1	Director of Public Works & Town Administrator
V-3	The Director of the Department of Public Works should be provided with a private office and work space.	1	Board of Selectmen & Town Administrator