



Town of Greenwich, CT
2002 Management and
Operations
Parking Study

Performed by DESMAN Associates

October 15, 2003

Mr. Marcos Madrid, P.E.
Commissioner of Public Works
Town of Greenwich
101 Field Point Road
Greenwich, CT 06836

Re: Town of Greenwich 2002 Management and Operations Parking Study / Final Report

Dear Commissioner Madrid:

We have incorporated your comments and the comments rendered by others subsequent to our public presentation of the DRAFT report, and are pleased to provide our final *Town of Greenwich 2002 Management and Operations Parking Study*. We gratefully acknowledge and appreciate your assistance and cooperation, the dedication and participation of the members of the Town's *Parking and Traffic Committee* and other Town representatives that gave their time to assist our efforts.

We look forward continuing our relationship with the Town of Greenwich and hope that we met all your expectations during our study effort.

Sincerely,

James J. Kopencey
Senior Parking Consultant

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Executive Summary

The Town of Greenwich established as one of its primary goals the need to improve its delivery of parking services. To accomplish this task, DESMAN Associates was asked to study specific actions the Town of Greenwich should take to improve the full spectrum of parking services. This parking study provides these recommended actions. With respect to the management and operations of the parking system, the Town asked DESMAN to offer specific recommendations to enhance the parking management. To accomplish this task, DESMAN analyzed the Town's existing parking management strategies and reviewed the current organizational structure that oversees parking management functions.

Parking Management and Findings – During the course of this report the Selectman's Parking and Traffic Committee was the designated "citizen advisory group" for this study. In this capacity they provided valuable input and feedback as this report evolved and was finalized. As part of this process, the Parking and Traffic Committee developed a *Mission Statement* and specific goals as a desired outcome of this report.

This study finds the current Town of Greenwich's parking management system does not correspond well to the *Mission Statement* or the goals developed by the *Traffic and Parking Advisory Committee*. To improve the Town of Greenwich's existing Parking Management, the following recommendations are suggested:

- Remove the fragmented management of parking by various Town departments and create a single source responsibility center to manage all on and of-street parking assets
- Hire a parking professional to manage the parking entity and administer the Parking Fund
- Since parking is a business and a service, adopt and follow a business model for this critical activity
- Employ the least offensive and most understandable parking management strategies that are fair, consistent, and equitably administered
- Diminish the size of the enforcement environment by creating some gated and cashiered parking facilities that are free from punitive actions such as ticketing/towing
- Recognize parking enforcement responsibilities are not the highest and best use of police personnel
- Replace existing mechanical on-street parking meters with *Pay-and-Display* central parking meters
- Upgrade parking facilities to be better lit, better landscaped and more aesthetically pleasing
- Improve the security of train station lots with better lighting, decorative fences, and the presence of a cashier

- Replace the need for the “*Holiday Parking Program*” by recognizing that the underlying cause that necessitates the program is the absence of adequate parking supply
- Address the need to employ unused parking supply in the Town Hall parking structure and the Library parking structure
- Recognize the nature of the parking space deficit should prohibit car dealers from using the Town’s parking assets for vehicles in inventory or awaiting maintenance

The first three recommendations noted in this *Executive Summary* are the most critical and should be the Town’s focus with respect to developing an implementation strategy. Once implemented, remaining recommendations within this report would then be managed for implementation within the Town’s management structure. Without implementing the first three recommendations noted above, the Town of Greenwich will continue to experience significant inefficiencies within their existing parking system thereby providing inadequate customer support for the local community.

Parking Operations Assessment and Organizational Analysis

Introduction

This report is organized into two parts, analysis of parking management strategies and practices and an organizational analysis. Through a reengineering process, the intended outcome of this report is to streamline and improve the efficiency of the delivery of parking services through modification of current approaches, practices, procedures, and the organizational structure from which parking services are delivered.

To carry out the parking operations assessment and organizational analysis DESMAN met with the Town's designated representative(s) to review and confirm study objectives, and identified contact persons associated with areas that were evaluated. Working with the Town's *Parking and Traffic Committee* in a classroom type setting, DESMAN facilitated the development of a mission statement and goals for the parking system.

DESMAN also worked with Town representatives to investigate current management practices and organizational structure, and identified all departments and their rolls in managing the Town's parking system. During this investigation, DESMAN met with key representatives of all departments that have a part in managing the Town's parking resources and evaluated parking functions performed by the various departments, as well as the communication between the departments. This was accomplished through interviews, on-site observations, and reviews of records and documents. This process allowed DESMAN to identify the strengths and areas that need improvement in the Town's overall delivery of parking services.

One of the primary areas of analysis was to determine the degree to which defined mission and coactive goals for the parking system have been met. This process enabled DESMAN to identify needs within the existing organizational structure that make the delivery of certain aspects of the parking services difficult to achieve and to recommended means, methods and procedures that would to promote a more streamlined parking system that would offer a higher level of service to parking patrons.

The organizational analysis portion of the study identified organizational structures that may be employed to provide a single source responsibility center. These organizational alternatives included modifications to the existing administrative structure, creation of a parking department under an existing department, creation of a freestanding parking department, and the creation of a parking authority.

Upon completion of the analysis, DESMAN met with the Town's designated representative(s) to present findings and recommendations and to respond to questions and comments. These comments and suggestions were then incorporated into the final report.

Scope of Services / Parking Operations Assessment and Organizational Analysis

To carry out the parking operations assessment and organizational analysis DESMAN performed the following parking management consulting services.

1. Met with the Town's designated representative(s) to review and confirm study objectives, identified contact persons within areas that were evaluated, worked with Town's *Parking and Traffic Committee*, and discussed the proposed project schedule.
2. Met with the Town's *Parking and Traffic Committee* in a classroom type setting to develop a mission statement and goals for the parking system.
3. Worked with Town representatives and identified all departments and their rolls in managing the Town's parking system.
4. Met with key representatives of all departments that have a part in managing the Town's parking resources.
5. Evaluated parking functions performed by the various departments and the communication between the departments through interviews, on-site observations, and reviews of records and documents.
6. Identified the strengths and areas that need improvement in the Town's overall delivery of parking services.
7. Determined the degree to which defined mission and coactive goals for the parking system have been met.
8. Identified needs within the existing organizational structure that make the delivery of certain aspects of the parking services difficult to achieve.
9. Recommended means, methods and procedures that are needed to promote a more streamlined parking system and a higher level of service to parking patrons.

10. Identified organizational structures that may be applied to provide a single source responsibility center. These organizational alternatives included modifications to the existing administrative structure, creation of a parking department under an existing department, creation of a freestanding parking department, and the creation of a parking authority.
11. Met with the Town's designated representatives and Town's *Parking and Traffic Committee* to present findings and recommendations and to respond to questions and comments posed by its members.
12. Finally, incorporated comments and suggestions made by the Town's designated representatives and Parking Taskforce and published the final Phase II report.

Defining the Mission for the Parking System

Parking management is an interrelated web of strategies and tactics that are formulated to meet certain goals and objectives for a parking system. To paint an accurate picture of the final product, the first step is to create a mission statement and define related goals. Once this is accomplished, parking and transportation system management strategies can be devised to meet the mission and its goals.

The creation of a worthy mission and goals affects the parking management and organizational structure. It also affects where each user group parks, safety and security issues, the fees for parking, the fine structure, the level of compliance with parking regulations, the functional design and operational mode of parking facilities, and other strategies aimed at redistributing the parking population to optimize parking supply. Most importantly, a worthy mission statement with coactive goals defines the level of patron service.

Facilitated by DESMAN, a parking mission statement was created by the Town's *Parking and Traffic Committee* that incorporates DESMAN'S experience in other municipal jurisdictions throughout the nation. Accordingly, the Town's developed *Parking Mission Statement* follows:

The Town of Greenwich's on and off-street parking system shall support existing land uses, help sustain the Town's economic vitality, and preserve sufficient parking for its residents, by providing adequate and high quality parking resources and related services for all user groups that need to park within the Town.

Coactive Goals to Support the Mission Statement

Based on DESMAN'S meeting with the Town of Greenwich's *Parking and Traffic Committee* and other Town representatives, the following goals for the parking system are:

- Providing sufficient parking to service existing land uses
- Providing safe, clean, well-lit and attractive parking facilities
- Promoting turnover of on-street downtown parking spaces
- Promoting easy access to parking destinations in a pedestrian friendly environment
- Employing the least offensive and most understandable parking management strategies that are fair, consistent, and equitably administered
- Recognizing that parking is a business and a service, and as such, must follow a business model
- Promoting alternative means of transportation
- Providing landscaping to meet high environmental standards
- Viewing parking as infrastructure to support economic vitality
- Preserving the most convenient and proximate parking spaces for short-term parking patrons, presumably retail parking patrons
- Encouraging long-term parking patrons, presumably office and retail employees, to park in spaces that are less proximate to their destinations
- Promoting a consistent look so that public parking could be easily identifiable
- Maintaining a high level of structural maintenance for public parking facilities
- Ensuring that parking lots and structures aesthetically integrate and functionally serve the community in which they exist

The Current Delivery of Parking Services

Parking and parking management is a contentious topic in Greenwich. There have been numerous parking studies performed over the years concerning parking adequacy and management that have not translated into action. This includes a “*Management Study of the Greenwich Police Department A Model for Excellence*” dated July 1998 which recommended that the Police Department should divest itself of parking management functions and turn the responsibility over to a parking authority. This study and its recommendation will be discussed later in this Section. *Prior to discussing the current delivery of parking services, three things should be kept in mind: First, there is a real parking deficit; second, the parking system does not correspond well to the mission statement and its related goals; and third no individual is charged with parking management.*

Fragmented Management - The current delivery of parking services is primarily performed by the Greenwich Police Department and the Department of Public Works. Other departments have some limited responsibilities associated with parking such as the Finance Department that is charged with the responsibility of issuing permits and verifying deposits into the parking enterprise fund, the Parks and Recreation Department that performs some landscaping functions, and Planning and Zoning that plays a role in planning parking projects.

By definition, this approach to parking management is known as a *Fragmented Management Structure*. The approach views the operation, not management, of parking as a group of unrelated processes without recognizing the need to coordinate them. Also by definition, a *Fragmented Management Structure* is absent a leader and a related single source responsibility center to manage its resources. The Town of Greenwich’s parking system functions are sufficiently unbundled to fulfill the definition of a *Fragmented Management Structure*.

Enforcement Environment - All Greenwich parking facilities are operated in an enforcement environment and use enforcement as the sole operational mode. The Town has no gated, cashiered, or access card controlled parking facilities that would allow parking outside the enforcement environment. In some facilities parking permits are used to identify eligibility to parking areas requiring such, and in other areas parking meters are used to identify the prescribed duration of a parking zone and serve as a revenue collection device. Some limited use of time zones is also used to communicate parking durations. Permits can be obtained through the Town of Greenwich; however, in most parking areas there is presently a waiting list to obtain a permit.

Parking Policy – Parking policy emanates from a host of sources including the departments that have parking responsibilities, the Town’s Selectmen who are the designated Traffic Authority for the Town Of Greenwich, other legislative bodies, the *Parking and Traffic Committee*, and occasionally citizen groups. Based on comments rendered by Town representatives and parking stakeholders that were interviewed, parking policies are most often crafted by hard working, dedicated, well-intentioned individuals. Parking policies were described as reactive and intended to resolve immediate parking concerns rather than proactive.

The Parking Enterprise Fund - Parking income is deposited and expenses are disbursed from the Town’s Parking Enterprise Fund. For the fiscal year ending June 30, 2001, the Retained Earnings in the Fund was \$13,978,519. During interviews conducted with Town representatives, it was stated that there is an absence of clear guidelines associated with the use of the Parking Enterprise Fund. There are annual disbursements from the Fund that are usual and customary such as salaries for two parking meter mechanics, two clerks, five traffic control officers, and 25% of a lieutenant’s salary. Other disbursements are made for equipment associated with the delivery of parking services that include vehicles expenses for six vehicles handheld ticket writing devices and outsourced ticket processing expenses.

The Police Department’s Role in Parking Management – By the remembrance of current police representatives, the Police Department has been charged with enforcement responsibilities for over 30 years. Since the entire parking system is located in an enforcement environment, management of enforcement by the Police Department was most likely perceived as a natural outgrowth of their responsibilities.

Lead by a lieutenant, the Police Department’s Traffic Division oversees and supervises parking enforcement officers, repairs and collects parking meters, and maintains two clerks to process parking violations. The enforcement operation uses a full staff compliment Monday thru Friday and provides one enforcement officer on Saturday.

Reengineering the Delivery of Parking Services

The Town asked DESMAN to offer suggestions to enhance the parking system by analyzing existing parking management strategies and review the organizational structure that oversees parking management functions. In essence, DESMAN was asked to provide recommendations that would reengineer the delivery of parking services.

According to Michael Hammer and James Champy, co-authors of *Reengineering the Corporation*, reengineering is looking at things not as they are, but as they should be. This does not mean merely fixing or improving existing procedures. It means starting

fresh with little reliance on past practices, procedures, and approaches. For reengineering to succeed, a top-down process must occur which encourages former job descriptions, titles, and organizational structures to change. Systems must be developed which empower people and groups to unleash their ingenuity. To reengineer, one must ask the fundamental question; why do we do what we do at all? Reengineering is a proposition that must produce dramatic results, and thus requires equally dramatic changes.

It is easily said that reengineering Greenwich's parking system is required to create a new parking paradigm, yet it is intimidating because it calls upon our intellect to create a vision of the perfect parking system. Even while we're in the process of forming that theoretical vision, we can easily taint the reengineering process by falling into the past traps of preconceived notions and political realities. For the reengineering of the parking system to succeed, we must shelve those elements that taint creativity and perhaps even revisit some approaches that may have previously been dismissed.

Meeting Parking System Goals

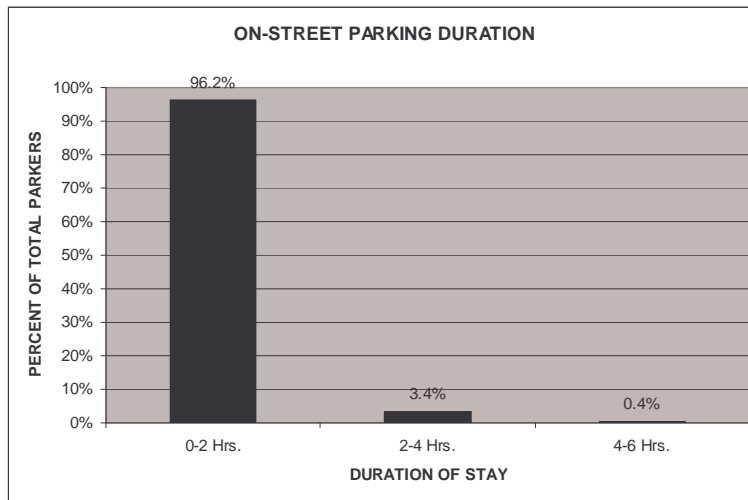
How well are the parking system's goals being met? Using the goals that were created by the *Parking and Traffic Committee*, each goal will be discussed individually to assess the current parking system's ability to meet those goals. Though subjective in nature, each goal was ranked according to the parking system's ability to meet the stated goals. The maximum number of points for full compliance is "5", and the minimum number of points is "0" for poor compliance. Since there are 14 categories, if the parking system fully met the stated goals, a perfect score would be 70.

Assessing the Goals

1. The first goal is to provide sufficient parking to service existing land uses. Since Greenwich has a deficit of nearly 200 parking spaces, this goal has not been met. Because the deficit represents a small portion of the overall parking supply, yet encumbers access to the vitality of the downtown, three (3) of five points are allocated to this goal.
2. The second goal is to provide safe, clean, well-lit and attractive parking facilities. The Town's parking facilities despite some recent lighting upgrades are in need of better lighting. Landscaping has overgrown the pedestrian exit on the side of the Town Hall parking Deck, and presents a security concern. Also, housekeeping items like sweeping of parking facilities and fresh line striping should be enhanced. Items such as decorative fences and landscaping in and around parking facilities are absent. This goal should receive two (2) of five points.

3. The third goal is to promote turnover of on-street downtown parking spaces. Although we have no knowledge of past turnover and duration prior to the parking meter rate increase, our sample testing along Greenwich Avenue showed good turnover. It is acknowledged that turnover in the lots located behind the shops and stores may not have turned over as frequently. The turnover and duration of Greenwich Ave parking spaces is depicted in Chart 1.

Chart 1 – On-Street Turnover and Duration



Since Greenwich Avenue was the only street that a turnover and duration analysis was performed, based on our findings we must award four (4) of five points. Ninety-six point two percent of those that parked on Greenwich Avenue on the date surveyed stayed less than 2 hours, while 3.4 % parked between 2 and 4 hours, and 0.4% parked between 4-6 hours. Many municipal jurisdictions have meter feeding that exceeds 15%, making Greenwich Avenue appear compliant.

4. The fourth goal is to promote easy access to parking destinations in a pedestrian friendly environment. With most parking supply located behind shops and stores, and the added amenity of police crossing guards at intersections, high marks are assigned for compliance with this goal. Five (5) of five points are given to this category.
5. The fifth goal is to employ the least offensive and most understandable parking management strategies that are fair, consistent, and equitably administered. The all enforcement environment throughout Greenwich severely impacts compliance with this goal. Enforcement is punitive and utilizes tickets, booting and fines. A friendlier environment would have most/much of the off-street parking located

outside of the enforcement environment in a gated pay-for-time-parked environment. Based on comments from those that we interviewed most generally believed that enforcement is fair and equitable; however all seemed to be able to cite instances where it was not. Since this is a common response this aspect of the parking program was not penalized; however overall, only two (2) of five points were awarded for compliance with this goal. Credit was also given for the higher prices for the most proximate parking, while the more distant spaces for long-term parking patrons were priced lower. This is a pricing strategy that is clear and understandable.

6. The sixth goal is to recognize that parking is a business and a service, and as such, must follow a business model. The fragmentation of the management approach for the delivery of parking services and the multiple groups, individuals, and departments that influence the operation and management of parking strongly conflict with this goal. The only positive feature is that parking income and expenses flow through an enterprise fund. The enterprise fund is however a “paper tiger” because there are few guidelines associated with access to the fund and no department or individual that can follow a business model to manage parking with those funds. It is a fund without a defined organizational structure. One (1) of five points is given to meeting this goal.
7. The seventh goal is to promote alternative means of transportation. The intent of this goal is to measure whether the Town provides strategies or programs that encourage alternate means of transportation to discourage single occupancy passenger vehicle travel. Some examples of such transportation demand reduction strategies are shuttle lots on the periphery of the downtown, pricing strategies that would make parking downtown a less attractive option, encouragements and incentives for formation and use of carpools. Other than the Greenwich train station commuter shuttle services, no such programs exist. Consequently one (1) of five points is awarded to compliance with this goal.
8. The eighth goal is to provide landscaping to meet high environmental standards. Most Greenwich parking facilities have few landscaping amenities to soften the look of expanses of asphalt. Though somewhat pervious, asphalt surfaces cause storm water runoff directly into storm sewers unfiltered and/or untreated. Although rare in densely populated municipal jurisdictions, some parking facilities are absent curbs and introduce landscaped swales to accept and filter some waterborne pollutants. Although some landscaping does exist, it is not a consistent policy to provide landscaping for surface parking facilities. Where landscaping does exist adjacent to the Town Hall parking structure, it poses a safety concern because it can hide potential wrongdoers from those that would use the pedestrian access and egress point on the opposite side of Town Hall. Because the Town has made some attempt to landscape, two (2) of five points are awarded for compliance with this goal.

9. The ninth goal is to view parking as infrastructure to support economic vitality. Because the Town has provided public parking facilities to service existing land uses, the Town has conceptually adopted this goal. However, because the Town has not proactively dealt with the downtown Greenwich parking deficit, three (3) of five points are awarded towards meeting this goal.
10. The tenth goal is to preserve the most convenient and proximate parking spaces for short-term parking patrons, presumably retail parking patrons. Since the Town has set aside the least proximate spaces with long-term parking meters, and used 2-hour parking meters at a higher price for short-term parking patrons, four (4) of five points are awarded toward meeting this goal.
11. The eleventh goal is to encourage long-term parking patrons, presumably office and retail employees, to park in spaces that are less proximate to their destinations. For the same reasons as indicated for the tenth goal (the pricing, location, and time differential), it is evident that the Town recognizes the importance of segregating long and short-term parking patrons. Consequently, four (4) of five points are awarded toward meeting this goal.
12. The twelfth goal is to promote a consistent look so that public parking could be easily identifiable. Downtown Greenwich parking lots by their proximity to destinations are rather obvious. The presence of parking meters and open lots seems to define public parking. Although a comprehensive signage system does not lead patrons to parking destinations, the lots do have a rather consistent look, though not particularly attractive. Three (3) of five points are awarded toward meeting this goal.
13. The thirteenth goal is to maintain a high level of structural maintenance for public parking facilities. The Town Hall parking structure is in need of structural maintenance. There are spalls in the concrete that require attention as well as leaks at some expansion joints. Some attempts have been made to patch spalled areas; however it appears that the attempts did not provide a long-term solution. Some points should be awarded for the restoration efforts done to date. However, much more attention is required to bring the facility back to structural health. Consequently, two (2) of five points are awarded toward meeting this goal.
14. The fourteenth goal is to ensure that parking lots and structures aesthetically integrate and functionally serve the community in which they exist. The Town's parking decks are passive in look and aesthetically integrate and functionally serve the surrounding land uses. The surface parking lots are the aesthetic detractors yet functionally serve the surrounding land uses. Four (4) of five points are awarded toward meeting this goal.

Table 1 – Assessment of Compliance with Meeting Parking System Goals

Goals for the Parking System	Points				
	1	2	3	4	5
1 Providing sufficient parking to service existing land uses					
2 Providing safe, clean, well-lit and attractive parking facilities					
3 Promoting turnover of on-street downtown parking spaces					
4 Promoting easy access to parking destinations in a pedestrian friendly environment					
5 Employing the least offensive and most understandable parking management strategies that are fair, consistent, and equitably administered					
6 Recognizing that parking is a business and a service, and as such, must follow a business model					
7 Promoting alternative means of transportation					
8 Providing landscaping to meet high environmental standards					
9 Viewing parking as infrastructure to support economic vitality					
10 Preserving the most convenient and proximate parking spaces for short-term parking patrons, presumably retail parking patrons					
11 Encouraging long-term parking patrons, presumably office and retail employees, to park in spaces that are less proximate to their destinations					
12 Promoting a consistent look so that public parking could be easily identifiable					
13 Maintaining a high level of structural maintenance for public parking facilities					
14 Ensuring that parking lots and structures aesthetically integrate and functionally serve the community in which they exist					

After assessment of the degree of compliance with the stated goals, the parking system received forty of seventy possible points. Since compliance was ranked on a 0 -5 point system, with five points being the best, the average score for compliance with each of the 14 goals was 2.86 points. Overall, the 40 points portray a fair parking system.

After reviewing the points allocated to each goal, the goals that were not substantially met, that is, those goals that received 2 points or less, include the following:

- Recognizing that parking is a business and a service, and as such, must follow a business model
- Employing the least offensive and most understandable parking management strategies that are fair, consistent, and equitably administered
- Providing safe, clean, well-lit and attractive parking facilities
- Maintaining a high level of structural maintenance for public parking facilities
- Promoting alternative means of transportation
- Providing landscaping to meet high environmental standards

If one were to categorize the goals that received the lowest scores, they can most likely be placed into three primary categories - a fragmented organizational structure, limited application and use of parking management strategies, and deficiencies in housekeeping. These elements will receive the greatest focus in the ensuing paragraphs.

Elements of Analysis

In addition to assessing compliance with the goals for the parking system that were created by the Town's *Traffic and Parking Committee*, DESMAN agreed to perform an analysis of the following elements of the parking system.

- Parking Operational Modes
- Organizational Alternatives
- Parking Fines and Fees
- Parking Technology
- Current Auditing of Parking Income
- Maintenance of Parking Facilities
- Parking Durations
- Parking Management Strategies
- Booting and Towing
- Safety and Security
- Special Programs
- Unused Parking Supply
- Parking for Car Dealerships
- Aesthetic considerations
- Environmental concerns
- The Parking Fund
- Privatization of certain functions

The above elements of analysis will be discussed individually in the ensuing paragraphs.

Parking Operational Modes

Two Primary Operational Modes - There are two primary methods to operate a pay-for-parking system. The first method is enforcement, which is the sole means employed by the Town of Greenwich. This method, enforcement, is called by many within the parking industry as the punitive side of parking. Enforcement relies on negative reinforcement, and manifests itself through the issuance of parking tickets and related activities such as booting, towing, and fines. Enforcement income primarily emanates from parking meters fees, parking permit charges, and fines from tickets issued. Expenses for enforcement is the result of salaries for parking enforcement officers and meter mechanics, ticket clerks and 25% of a police department's Traffic Division lieutenant's salary, ticket collection contract expenses, parking meter repairs, court expenses for those that contest parking violations, and vehicle expenses for six enforcement vehicles.

Gated Parking Systems - The second mode of operation is a gated parking system. Although some private parking facilities in Greenwich have gated systems, no Town of Greenwich parking facility does. These gated systems can be cashiered or automated for access card users. The gated environment does not require enforcement and therefore allows parking patrons to stay for the duration that they wish without the fear of receiving a parking violation. Pricing strategies control how long patrons stay. Lots designed for short-term parking patrons have low prices for the first 2-3 hours and severely rise thereafter to discourage long-term parking. Conversely, lots that are designed to accommodate long-term parking patrons have high prices for the first 2-3 hours and do not sharply escalate in price. In such lots, there is a direct correlation between access card entries and exits, entry tickets issued/vehicles present and time parked with revenue generated.

Most, but not all, municipal jurisdictions use the enforcement environment on-street and elect to use gated facilities for off-street parking. Most parking patrons feel more at ease in the non-punitive gated environment. There is no fear of receiving a parking violation and if a patron stays longer than expected, the only penalty is to pay for the additional time parked. With gated facilities there are no parking violations to deal with and no enforcement responsibilities. The Greenwich Train Station Lot is an example of a facility that would work well in a gated environment. Although other lots could fit this profile and benefit from a gated parking environment, that depth of analysis is not contemplated in this study.

Parking Patron's Viewpoint - From a parking patron's viewpoint, the disadvantages of an all enforcement environment includes the frustration associated with receiving a parking violation, the need to carry sufficient change, and the lack of flexibility to park for multiple hours without fear of receiving a parking violation or the need to feed a parking meter. On-street, one must accept the enforcement environment because streets cannot be gated and are primarily traffic arterials that happen to support some parking as an ancillary function.

Staffing Off-street Parking Facilities - Staffing parking facilities has not been required in the Town's enforcement environment. Some would argue that staff is not required. However, it should be remembered that staff is already present in the form of enforcement personnel. The disadvantage is that enforcement staff are not continuously present. Cashiers provide valuable eyes and ears in parking facilities. Although they are not security staff, they pose a chilling presence to potential wrongdoers that may vandalize or attempt to steal or break into vehicles, or cause harm to parking patrons or their property. Cashiers can also serve in an ambassadorial capacity for those that seek directions to destinations or require other information.

The Economics of Parking Meters - When using mechanical parking meters in an enforcement environment, there is a poor correlation between parking income and time parked. Some consultants refer to the poor correlation as the 70/70 rule. Although not an absolute number, however generally correct in most municipal jurisdictions, approximately 30% of the time a parking metered space is occupied, the parking meter’s time is expired. That’s means that only 70% of the income for time parked is received. The other side of the 70/70 rule is that approximately 30% of parking patrons are able to park on coins deposited by a previous parking patron. That means that they must only deposit coins for 70% of their actual parking time. This is highly unlike gated parking systems that collect the actual parking charge for the actual time parked.

Because gated lots are more patron-friendly and have a better correlation to time parked versus revenue generated, it is highly recommended that gated systems should be part of Greenwich’s repertoire of off-street parking options. It is further recommended that a professional analysis of potential lots that could be gated should be conducted. To address all needs of the parking facilities being analyzed, the analysis should include a review of staffing requirements, revenue and access control requirements, and identify the user groups being served.

Parking Fines – Greenwich’s fine structure was reviewed and contrasted to some other communities. This is depicted in Table 2. Generally, DESMAN encounters low fine structures and needs to build a case for higher fines to encourage compliance with parking regulations. Greenwich has a sufficiently robust fine structure to serve this purpose.

Table 2 – Benchmarking Greenwich’s Parking Fine Structure

Municipality	Overtime Parking at Meter	Overtime Parking Time Zone	Prohibited Zone	Parking Illegally in a Resident Parking Permit Zone
White Plains, NY	\$10	\$10	\$35	\$25
New Brunswick, NJ	\$27	\$22	\$37	\$22
Perth Amboy, NJ	\$10	\$40	\$40	\$25
Wilmington, DE	\$25	\$25	\$25	\$25
Union City, NJ	\$16	\$16	\$26	\$28
Ithaca, NY	\$10	\$10	\$15	\$10
Boulder, CO	\$15	\$20	\$15	\$20
Greenwich, CT	\$15	\$50	\$50	\$50

Parking Fees – Parking fees in Greenwich are considered to be low. DESMAN recently performed a recent rate analysis in 14 eastern cities and found the following results. Average on-street parking meter rates were 73 cents per hour. Off-street, the maximum

per day rate averaged \$6.72 (\$134.40 over 20 days) and monthly contract parking rates averaged \$72. If one were to contrast Greenwich's on-street parking system at 50 cents per hour to the average, Greenwich charges 23 cents less per hour than the other communities that were surveyed. If one views the off-street long term parking spaces that are priced at 25 cents per hour, over the course of 8 hours the cost would be \$2 per day (\$40 per month). Contrasted to other communities surveyed, the cost of all day parking in Greenwich is \$4.72 (\$6.72-\$2.00) less costly per day, and if contrasted to monthly parking fees Greenwich charges \$32 (\$72-\$40) less per month.

One of the major contributing factors to other municipal jurisdictions charging much higher rates than Greenwich comes from the fact that the other parking systems have parking structures with outstanding bonds. Therefore, to cover debt service and to manage and operate parking structures that are much costlier than surface parking, higher user fees are required to cover those expenses. Because Greenwich primarily operates surface parking and has no outstanding bonds, Greenwich's current parking system is isolated from many of those expenses.

If most/many of the parking improvements recommended herein are adopted, the Town should raise parking rates to cover the increased expenses. The exact amount of increased expenses is largely dependent on whether the Town embraces the gated parking concept and other recommendations contained herein. On-street parking meter rates may need to be raised to 75 cents per hour, and depending on the desired user groups for each gated lot, those rates would need to be raised to maintain the relationship between on and off-street parking. Sample rates will be presented later in this report.

Parking Technology - With the exception of handheld ticket writing devices and the associated software provided by ComPlus for ticket tracking and collection, Greenwich's parking system is devoid of state-of-the-art parking technology. Two companies, Duncan Parking Meters and McKay Parking Meters, manufacture the current parking meters that the Town uses. Both companies provide quality products; however, the parking meters are mechanical instead of state-of-the-art electronic. Because the level of technology of the parking meters has significantly changed over the last decade, the existing parking meters are technologically obsolescent.

The Town should consider replacement of the existing mechanical parking meters. With mechanical parking meters only the income removed and deposited is known. Therefore, when a collection takes place, only the amount gathered is known. Electronic parking meters permit management representatives to audit the amount of money that was deposited into parking meters prior to collection. Therefore, there can be a real audit process that allows one to compare the amount deposited by district to the amount collected in the same district.

Currently, the Finance Department does not audit the parking meter collection process. Finance Department representatives indicated that their primary function has been to verify that timely deposits are made into the proper account and watch for variances in parking meter income. *With in excess of \$1m at stake, better tools and better checks and balances are recommended.*

Replacement Options – There are two primary parking meter options that can replace existing parking meters – individual single space electronic parking meters or multi-space parking meters. All individual parking meters are subject to the 70/70 rule, whereas multi-space parking meters are not. Multi-space parking meters come in two varieties, *Pay-By-Space* and *Pay-And-Display*. Each electronic meter option will be discussed.

1. *Electronic Single Space Parking Meters* - The traditional approach would be to replace mechanical parking meters with state-of-the-art electronic parking meters. This can be accomplished by the purchase of entirely new parking meters @ about \$350 each or by replacement of the internal mechanism of existing meter housings @ about \$150 each. The parking meter housings that were observed were in good condition and did not necessarily need their housings replaced; therefore, if this approach were selected, the replacement cost would be about \$150 for each parking meter. One such insert is pictured below.

An Electronic Parking Meter Insert

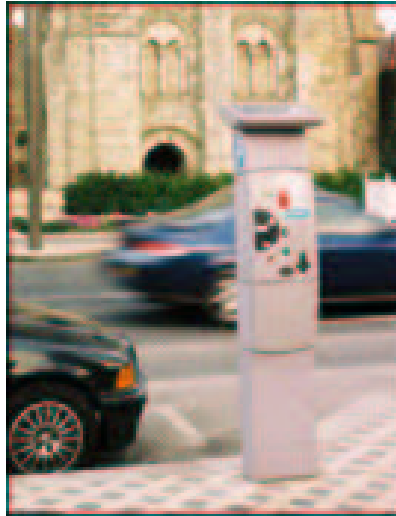


Electronic parking meters change the way meter repairs and maintenance is performed. They require periodic battery changes (annual in most cases); and instead of repairing mechanical parts, meter maintenance is performed by merely

replacing the entire insert with a new insert from inventory. Many users of electronic parking meters enter into contracts whereby defective inserts are routinely picked up and exchanged for repaired ones. Unlike the existing mechanical parking meters, the electronic parking meter's internal clocks are highly accurate and are not likely to incorrectly display time. These meters can accept coins, special parking debit cards (not bank debit cards) and tokens.

2. *Central Parking Meters* - Recently, multi-space parking meters have become increasingly popular. They come in two varieties *Pay-By-Space* and *Pay-And-Display*. Multi-space parking meters have some distinct advantages. Primarily, they provide a full audit trail of all transactions. In some more sophisticated installations, multi-space parking meters can even send messages to a host computer that performs diagnostics of each device and displays its financial and supply status. Depending on the location of the parking spaces that are intended to be covered, multi-space parking meters can replace between 10 and 20 traditional single space parking meters, and accept cash, coins, tokens, smart card, or credit card for payment. They are also more aesthetically appealing.
 - a. *Pay-By-Space* – A poorly functioning example of this technology is located in the Arch Street Parking Lot. In an on-street application, each *Pay-By-Space* parking meter services 10-20 numbered parking spaces. Therefore, each parking space requires a sign, either painted on the pavement or posted. To render payment, the parking patron must remember the number of the parking space in which they parked. Once the space number is entered, the next step is to determine the length of stay and deposit or insert cash, coins, tokens, a smart cards, or credit card for payment. Frankly, *Pay-By-Space* is not the best choice for on-street applications in Greenwich because marking spaces on the street when roads are snow covered obscures the markings and the garish look of signs with numbers posted in front of each parking space is unattractive. Enforcement is performed by receiving a printout from each *Pay-By-Space* parking meter and issuing a ticket to each vehicle that occupies an unpaid parking space.

A Solar Powered Central Parking Meter



- b. Pay-And-Display – Like its *Pay-By-Space* counterpart, *Pay-And-Display* parking meters can service between 10- 20 parking spaces. The primary difference is that *Pay-And-Display* parking meters require no signs in front of each parking space. The payment process requires the patron to select the duration of time and render payment by depositing or inserting cash, coins, tokens, a smart cards, or credit card. After a receipt is issued that boldly displays the expiration time and date, it is the patron’s responsibility to display the receipt on the dashboard of the vehicle.

After considering the parking meter options presented herein, it is recommended that at minimum, the existing mechanical parking meters should be replaced with electronic parking meters. The question is which of the three electronic parking meters should Greenwich implement?

Traditional single space electronic parking meters are familiar to downtown parking patrons. There is no learning curve for the public and the electronic inserts require little retrofitting. As previously noted, they accept coins, special parking debit cards and tokens. However, with respect to parking income, the 70/70 rule continues to exist. There is technology in testing that could *zero out* the time and make individual electronic parking meters not subject to the 70/70 rule, but that technology has not proven itself to DESMAN’s satisfaction. Just replacing mechanical parking meters on-street with single space electronic parking meters represents an improvement because of its audit capabilities. For that reason alone, these meters should be considered as an option.

With respect to electronic parking meters, *Pay-By-Space* parking meters have had less success on-street in the United States. Parking patrons find them to be more difficult to use and frustrating to remember the parking space number. Additionally, the garish look of numbered signs in front of each on-street parking space makes them an unattractive option. Despite the fact that *Pay-By-Space* parking meters accept multiple payment options, leave excellent audit trails, and are not subject to the 70/70 rule, DESMAN does not recommend this technology because of negative user experiences.

Pay-And-Display parking meters have been a growing part of the on-street parking market that has gained and enjoyed user acceptance. Aspen, Colorado was one of the first municipal jurisdictions to abandon traditional on-street single space parking meters and replace them with *Pay-And-Display* parking meters. What started as an experiment nearly 8 years ago has turned into a successful national model for this payment option. Aspen started with a few test patches of *Pay-And-Display* central parking meters and expanded the program to the entire City.

The City of Aspen uses a progressive rate structure on-street and does not provide long-term parking (Aspen has a significant shuttle bus program for long-term parking patrons). Their on-street program uses a 4-hour time limit with the first hour costing \$1. The second hour charge is \$3, the third hour is \$5 and the fourth hour is \$8. Aspen's approach may not be right for all municipal jurisdictions, and their rate structure may not be appropriate for Greenwich; however the use of *Pay-And-Display* central parking meters does seem appropriate for Greenwich and should be considered a viable alternative to single space electronic parking meters. If Greenwich elects to use this technology, it is highly recommended that professional parking consulting services should be used to specify the system, assist in selecting the sites for installation, and assist with the marketing of the program. *Pay-And-Display is the preferred and recommended electronic parking meter option for Greenwich.*

3. *Off-street Parking Technology* – If the Town elects to accept the recommendation to eliminate or reduce the number of lots in the off-street enforcement environment, there are a host of gated parking revenue and access control systems that can manage each selected parking facility and user group. Contemporary systems are computer based and connected via modem to a central computer. They provide excellent audit trails and management data for parking managers and fiscal representatives.

In a network environment, each component is connected to a local controller and reports and polls the central computer. The components that are connected to the computer system include ticket issuing machines, parking barrier gates, loop detectors (vehicle presence detection devices), cashier terminals, access device readers, and pay-on-foot machines. Systems of this nature are technologically

state-of-the-art and widely used throughout the parking industry. Since quality and performance of this technology varies, it is recommended that professional specifications should be prepared to install a gated parking system.

On-line systems can control multiple parking lots. If lots include or are solely for monthly parking, each access credential can be time blocked and only work for certain hours or work all day. Access credentials vary by type and include insertion cards, proximity cards, and parking transponders (similar to an EZ Pass toll road transponder). The access credential can also be programmed as if it were a debit card. In that case, parking patrons would pre-pay for parking, and each use would debit the fee from the access credential.

With credit card acceptance, monthly parking patrons could arrange for credit-card-on-file and never be bothered with rendering monthly payments in person. At the beginning of each month, the access credential would be renewed through a software routine that draws down a predetermined amount from each credit-card-on-file account and deposits the funds into the Town's designated account.

The revenue control components for an on-line, real-time system are conceptually pictured below. Tickets are machine readable to avert the need for cashier calculations and revenue control anomalies are identified for auditing.

Typical Components for an On-Line Parking Access and Revenue Control System



Maintenance of Parking Facilities – Both daily and structural maintenance are important factors that detract or enhance the perception that the public has of a parking facility or parking system. All surface parking facilities are relatively well policed for removal of debris, however, there is evidence that major cleaning could be improved and line striping did not appear to be universally fresh throughout the parking system.

Daily and structural maintenance of the Town Hall Parking Structure was found to be in need of improvement. Debris buildup was noted on the lower levels of the parking structure and evidenced the lack of consistent attention. With respect to structural maintenance of the Town Hall Parking Structure, numerous spalls in the concrete were observed as well as failures to sections of the expansion joints that allowed water to penetrate to the lower levels of the structure. Although many of the spalls were patched, the repairs were not totally successful. Repairs become exponentially costly if structural maintenance is deferred.

It is recommended that a comprehensive condition appraisal of the parking structure should be conducted to determine the magnitude of the repairs required to bring the facility back to full structural health. Once the condition appraisal is completed, it is further recommended that a repair program should commence. A facility review should be conducted annually as part of the formulation of a budget for capital improvements to the parking system. The initial repair program should include enhancing lighting for better security, repairing spalled areas, and modifying the landscaping and hardscaping around the pedestrian access point to enhance the perception of security.

Parking Durations – With a few exceptions of shorter parking durations, there are primarily two parking durations for most of the parking system – 2-hour parking and 12-hour parking. During the course of interviewing Town representatives, it was made known that in past years there were multiple parking durations. Most of the time limits were added over time and created a complex series of parking durations. The establishment of multiple parking durations was described as specific responses to specific situations. To the Town’s credit, the parking durations were simplified.

Most progressive municipal jurisdictions use few time durations. The most popular duration is two hours. The theory is that shorter time periods are more difficult to enforce because enforcement routes seldom pass the ½ hour and 1-hour zones with adequate frequency. A more effective alternative to shorter parking durations is to place higher parking charges on those spaces to encourage turnover. It is DESMAN’s experience that this economic based parking management strategy tends to bring about the best compliance with parking regulations. If parking patrons stay too long in any particular area or zone, raising the price of the related parking meters will effectively reduce the attractiveness of a long stay. This approach is in compliance with one of the

goals for the parking system – that is, *employing the least offensive and most understandable parking management strategies.*

Since existing long-term parking is located in metered parking lots, the 12-hour zones should continue as a means to designate and encourage where long-term parking should occur. *Ideally however, 12-hour metered off-street parking spaces should ultimately give way to parking facilities designed with gated revenue and access control systems to provide an alternate means to identify long and short-term parking areas.*

Pricing strategies are the single most effective tool to distribute and move parking populations. Long-term parking areas should be priced high for the first few hours to discourage (not prohibit) short-term parking and level off with a daily maximum. Long-term parking lots should be located in similar areas as 12-hour meters. Other off-street parking facilities that are closer to destinations should be priced lower during the first 2-3 hours and sharply escalate after the third hour to discourage (not prohibit) long-term parking patrons. Unlike the enforcement environment, the gated parking environment uses parking charges to influence who parks where and how long they stay. This is not done by the legislation of a time limit; it is accomplished by matching the price to the desired duration that the Town deems appropriate.

Two sample off-street rate structures are presented to depict how pricing strategies can be used in gated off-street parking facilities. The first sample is a progressive rate structure to encourage short-term parking and the second sample is a regressive rate structure to encourage long-term parking.

Sample Progressive Rate Structure to Encourage Short-Term Parking

0-1 hour	\$0.50
1-2 hours	\$1.00
2-3 hours	\$3.00
3-5 hours	\$5.00
5-8 hours	\$7.00
Over 8 hours	\$8.00

Sample Regressive Rate Structure to Encourage Long-Term Parking

0-1 hour	\$1.50
1-2 hours	\$2.50
2-3 hours	\$3.00
3-5 hours	\$4.00
Daily Maximum	\$5.00

Booting and Towing – After failure to render payment for five parking violations, the Town utilizes a boot to immobilize vehicles owned by those that habitually ignore the law and do not answer court summonses associated with parking violations (scofflaws). Booting sends out a loud message to pay up promptly because it can be visually observed by all that pass the booted vehicle – it serves as a glaring example of the consequences of failing to pay for parking violations. Towing is best used to remove vehicles from conditions that involve safety and security, damage to property (parking on lawns), or creates an inconvenience to others (blocking in another parking patron or illegally occupying a handicapped parking space). It is believed that the Town has adopted the most powerful and rational approach to dealing with scofflaws. *It is recommended that the booting policy should continue.*

It is understood that when vehicles are booted that there is no penalty associated with the boot. The only requirement is to pay the outstanding parking violations, and then the boot is removed. This is unusual in the parking industry. Most boot removals require an additional payment to cover the expense and effort associated with the boot. *In addition to paying past due parking violations, an additional charge is recommended to penalize the scofflaw for the time and effort associated with the booting process. It should be at least the cost of a single parking violation, which is currently \$50.*

Safety and Security – Safety and security issues associated with parking facilities fall into two major categories – real and perceived exposure to crime. Both issues should be addressed. According to Police Department representatives, the parking system has not encountered crimes against persons such as muggings and purse snatchings within parking facilities. This is the reality. There is a perception by some individuals that some parking facilities or areas of parking facilities are not safe. Since perception is reality for most people, it is important to deal with perceptions as if they were real.

A real safety and security issue is car theft. Greenwich police representatives do acknowledge that there have been sporadic vehicle thefts, particularly in the train station parking facilities. Greenwich statistics indicate that approximately 80 vehicle thefts took place each year over the past five years. Of the 80 car thefts, 60% (about 48) took place in commuter parking lots adjacent to the train stations. These unattended parking facilities that are along I-95 present the opportunity for a quick theft and getaway. Given the magnitude, frequency, and nature of these crimes, instituting a full or part-time security presence would be excessive. *Other measures like installing decorative fences, installing high intensity lighting, and providing a cashier in a gated environment are recommended. These actions seem to be the most prudent security response.*

It was already pointed out that lighting improvements would be beneficial in the Town Hall parking structure, and despite recent lighting improvements within the Greenwich Plaza Garage, it is believed that additional lighting is still required in that facility.

Contemporary parking structures are designed to have light and airy environments. This is most often achieved by bright lighting sources, particularly in pedestrian areas. Another concern that was previously noted was the overgrown landscaping at the pedestrian exit to the Town Hall parking structure. This area should be well lit and highly visible from the street. Generally low-lying shrubs are recommended in and around parking facility pedestrian portals to prevent potential wrongdoers from concealing themselves.

Special Programs – Many but not all special parking programs in most municipal jurisdictions are the result of specific responses to specific problems. These programs are most often created by well intentioned and hardworking citizens and Town employees. Often, however these programs mask the underlying causes of the problem. The “*Holiday Parking Program*” is believed to be one of these programs. The underlying cause that necessitated the program was an inadequate parking supply. The response was to provide valet/tandem-parking services. While the program generally worked, some parking patrons did not wish to relinquish their keys and many Town representatives criticized the program for a variety of reasons. . *Although the program is a legitimate way to provide adequate parking over the holiday period, about 200 additional parking spaces would better serve the parking needs without a special program. The 200 additional parking spaces would also be available at other times of the year when parking supply is critical. It is recommended that when adequate parking supply is provided that the “Holiday Parking Program” should be eliminated.*

Unused Parking Supply – There is one primary parking facility that has unused parking supply. On the day vehicle occupancy counts were conducted, of the 277 parking spaces in the Town Hall Parking Deck only 166 were occupied. Although some Town representatives believed that the facility was full most of the time, it was observed on several other occasions that this facility did not fill. *Since parking supply is inadequate, it is recommended that Town officials should discuss how this parking facility could be better utilized.*

Parking for Car Dealerships – Some municipal jurisdictions lease parking spaces to private sector entities when parking demand is low and there is an opportunity to maximize parking income or avert a parking income deficit. This situation occurs sometimes when a new parking structure is built and surrounding land uses have not yet matured in their parking demand, yet it is highly unusual to maintain leases of this type when parking supply for other land uses is short. *It is recommended that the Town should cease allowing parking dealerships to store vehicles in public parking facilities. The normal and customary approach is to require vehicle dealerships to provide their own parking spaces for vehicles in inventory or awaiting maintenance.*

Aesthetic Considerations – The Town of Greenwich has a thriving and upscale central business district, however the parking facilities that serve the land uses are relatively unattractive. The off-street parking facilities are relatively large expanses of asphalt, dotted with parking meters, and devoid of landscaping and hardscaping amenities. The harsh look of the parking facilities is in stark contrast to the surrounding land uses. Decorative fences, decorative lighting fixtures, decorative bollards, landscaping, granite curbing, and crisply painted line-striping are the type of amenities that are used to improve the look of parking facilities. *It is recommended that The Town of Greenwich should upgrade the look of parking facilities that surround the land uses that they support.*

Environmental Concerns – The Town of Greenwich has few parking structures and relies primarily on surface parking supply. Unlike parking structures that have sand/oil separators to cleanse the runoff and deposit it into sanitary sewers, surface parking lots that are paved with asphalt cause rainwater to run directly into the Town’s storm water system. This causes particular and chemical pollutants generated by vehicles to be washed away and contaminate the bodies of water into which they drain.

Some surface parking facilities have more permeable surfaces such as crushed gravel to filter pollutants from storm water. However, in the municipal environment, the use of gravel would be frowned upon for aesthetic and functional reasons. One solution that could apply in certain sections of certain parking facilities is the introduction of soil berms as a barrier to provide absorption and filtration of pollutants. Depending on their location, the berms could serve two purposes. One use would be to provide a perimeter control for gated lots and another use could be to present a landscaping opportunity. It is recommended that designs of new or redesigned surface parking facilities should be cognizant of potential contamination from motor vehicles and make provisions to mitigate the exposure to the fullest degree possible.

Privatization - Certain functions that are performed by the Town within and around parking facilities should be privatized. The Town has experience with outsourcing as is evidenced by the ticket collection contract with ComPlus. Some other examples that could be outsourced include sweeping contracts for the parking facilities, snow removal contracts, electrical contracts for bulb and ballast repairs, and landscape maintenance contracts. Along with outside contracts comes the important responsibility of overseeing the work. With the current fragmentation of parking management, monitoring parking contracts is difficult.

The Parking Fund – A parking enterprise fund is generally a unit of municipal government. It is an accounting construct of municipal government that follows a businesslike model and is intended to generate adequate income to be self-sustaining. Others have defined an enterprise fund as a separate fund used to account for operations

that are financed and operated in a manner similar to private business enterprises and where it is the intent that costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered through user charges.

For the fiscal year ending June 30, 2001, the Retained Earnings in the Town of Greenwich's Parking Enterprise Fund was \$13,978,519. In the municipal environment, frankly in any business environment, funds that continue to grow and have no major capital expenditures or vision for its use tend to be attractive for other uses. In fact, recent attempts have been made to dissolve Greenwich's Parking Enterprise Fund, and absent specific guidelines for use of the Fund, attempts have been made to tap its resources.

Parking enterprise funds are generally tied to parking management entities like parking departments that have capital budgets along with plans to expend funds for approved parking projects and maintain reserves for such items as future property acquisitions, capital equipment purchases, facility upgrades, and structural maintenance. Absent a parking management entity and parking manager, there is no individual or department that can convey a vision for improvements in the delivery of parking services or administer programs associated with the Fund. *It is highly recommended that the Parking Fund should be maintained and made available to a parking management entity that the Town would select to manage its parking resources.*

Organizational Alternatives

To review the organizational structure that oversees parking management functions, the methodology DESMAN employed looks for redundancy or fragmentation in management responsibilities and coordination between processes and personnel. The reporting and management structure associated with Greenwich's delivery of parking services was evaluated to determine and identify potential weaknesses in the parking management structure. Once this is accomplished, suggested changes to management structure will be identified that are intended to streamline the delivery of parking services and ultimately aimed at fulfilling the mission and goals of the parking system.

Greenwich's Existing Parking Organization

The current management of parking was evaluated by conducting interviews with Greenwich's *Traffic and Parking Committee*, Town representatives and through the administration of DESMAN's *Municipal Background Information Survey*. The questions asked and elaborated on during the interviews are as follows:

1. Who is responsible for structural maintenance and repair of parking garages?
2. Who is responsible for maintaining lighting within parking structures?
3. Who is responsible for cleaning and painting parking facilities?
4. Who is responsible for walkways and pedestrian areas in and around parking facilities?
5. Who is responsible for the maintenance and care of landscaping in and around parking facilities?
6. When new parking facilities are contemplated, who within the Town represents parking interests/requirements of new development?
7. Is there a single source responsibility center to manage all parking assets?
8. Has the Town ever considered the creation of a parking authority or similar agency?
9. Who is in charge of on-street parking?
10. Who is in charge of parking enforcement officers, parking meters, and parking meter collection?
11. What is the average number of tickets issued on an average day by an average enforcement officer?
12. What is the amount of revenue generated by tickets annually?
13. What percentage of tickets issued are properly adjudicated?
14. How many parking meters are there in the system?
15. How often is parking meter revenue collected?
16. Who audits off-street parking facilities?
17. Who assigns parking enforcement officers?

18. Who recommends parking policy?
19. Does the Town have published goals/objectives for the parking system?
20. Does a cashier-training manual exist?
21. What is the Town's auditing practices and procedures?

Although all the responses to the questions are not salient to our discussions, certain responses provide a picture of the Town's management of its parking system. It can be generally stated that the Department of Public Works is responsible for overall maintenance of the parking system. Landscaping improvements and maintenance is the responsibility of the Parks Department. On street parking enforcement is the responsibility of the Greenwich Police Department and performed by their parking enforcement officers. Auditing takes place under the supervision of the Finance Department. Parking policy emanates from a host of sources including the departments that have parking responsibilities, the Town's Selectmen, other legislative bodies, fiscal bodies, the *Parking and Traffic Committee*, and occasionally citizen groups and individuals.

None of the Town's departments have parking management responsibilities at the top of their priority list. For example, replacing a parking meter pole is not the first item of business for the Public Works Department. The Police Department's primary responsibility is not to oversee the parking enforcement officers, and the enforcement officers themselves are not solely devoted to parking enforcement when other police priorities manifest themselves. Following through on audit anomalies, although important to the Finance Department, is not a top priority or an area of their expertise. *No single department or individual has parking as their top primary.*

The first observation is that parking management responsibilities are fragmented into different departments and have parking as a parallel, second, or distant priority. It is generally agreed within the management consulting community and in the parking industry that a fragmented management structure obscures the big picture. Who communicates, correlates, and acts upon the relationship between processes? Who does a parking patron call if they have a problem? Who's in charge?

Addressing the fact that none of the departments have parking responsibilities as a top priority, parking takes on a "Second Sister" status. Ideally, the departments that have parking management responsibilities are expected to properly serve and devote their resources equally among each responsibility center without conflict. Unfortunately, this is seldom the case. The prime directive of each of these departments prevails and draws the most focus. Coordination, focus, consolidation, and central leadership are needed to effectively deliver parking services.

Parking industry management experts generally agree that the parking management structure most often dictates what the parking system will look like. Conversely, the parking system and its operation most often reveal the nature of the management structure. There are some telltale signs of a poorly crafted management structure. These telltale signs are usually readily evident and generally characterized by the parking system's inability to:

- Meet basic performance objectives
- Portray a good public image
- Respond to the user groups it serves
- Understand and apply large parking management strategies

Conversely, well-crafted parking management structures most often have the ability to perform the following:

- Establish an adequate budget to address the capital and operating requirements of the parking system
- Set rates that are sufficient to fund activity to meet the mission and goals of the parking system
- Manipulate and control most/all elements and processes associated with the management and operation of the parking system
- Set aside sufficient revenue for property acquisition and future development
- Set aside sufficient revenue for system maintenance and other future capital expenditures
- Direct and deliver services from a single source responsibility center

Based on observations and interviews, Greenwich's parking system is neither of the extremes presented in the telltale signs of a poorly crafted parking system, nor is it an example of a well crafted parking system. To varying degrees, it has some elements of both.

We did note some Greenwich specific examples of situations that resulted from the fragmentation of parking and its second sister status.

1. There is an absence of specific parking related auditing expertise. This situation is acknowledged by Town representatives who stated that "*this is a specialized area that we're not too good at*".
2. Parking meter income is not audited and tested to determine if the amount deposited into the parking meters is equal to the amount collected (with existing parking meters this can be generally tested by a tedious manual process).

3. Because parking is not the singular focus of activity for any department, requests from one department to another are sometimes put on the proverbial back burner, sometimes forgotten or ignored.
4. There are no regular meetings concerning parking issues by those departments that manage elements of the parking program, which contributes to poor communication.
5. Absent a full-time parking professional, there is no individual that fully understands the impact of the full range of parking management strategies.
6. When making parking policy, because there is no professional parking expert, policymaking bodies are often put in awkward situations where public petitions prevail over tried and true parking strategies.
7. Parking management decisions are often made in the political arena.
8. There is no continuing analysis of parking inventory and adjustment of short to long-term needs to maximize use of the Town's existing parking inventory.
9. There appears to be no support for development of additional shared parking opportunities.
10. There is no central resource to research optimal sites to meet current and future parking needs.

For the parking system to significantly improve, it needs a parking management structure that is able to meet the recommended goals and avoid the existing shortfalls.

Parking Management Alternatives

Introduction

Organization and management of parking systems vary from town to town. Specific responsibilities and arrangements reflect local circumstances and needs. Major variables include the amount and location of the municipality-owned parking facilities, community size and resources, state enabling legislation, local statutes and the priorities, agenda and attitudes of the local community.

Before discussing parking management alternatives, it is DESMAN's impression that despite the fragmentation of Greenwich's parking management structure and its related disadvantages, the departments and individuals that manage parking are dedicated to the

degree that their time allows. Frankly, considering the structure that they have operated under, the parking system is at least fair. That should be construed as high praise for a difficult situation. Notwithstanding, since no existing department or individual can make a full-time commitment to parking management, the following management structure alternatives are presented for the Town's consideration.

- Parking Authority
- Parking Department
- Parking Department organized as an Enterprise Fund
- Parking Division

It is believed that any of the alternatives presented herein would be able to significantly improve the delivery of parking services and are far superior to the existing fragmented approach. The parking management alternatives are presented as a range of choices from which the Town could select. Each approach has its strengths and weaknesses and some better fit the political and governmental environment in which they reside. The alternatives are defined as follows.

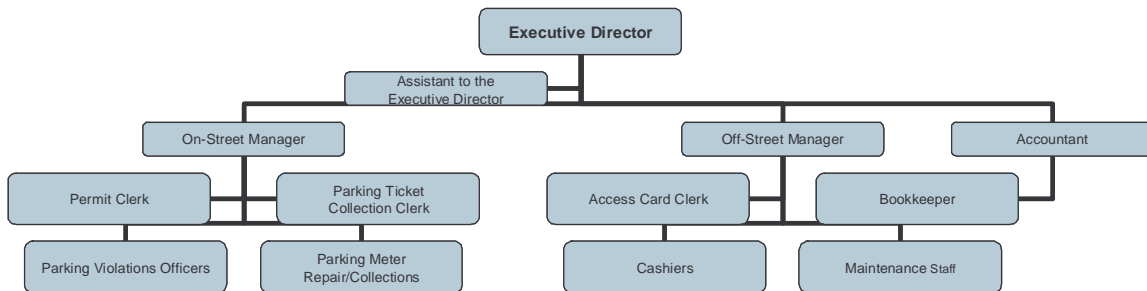
A Parking Authority - A parking authority is defined as an independent body politic of a municipality enabled under state legislation, and created by a municipal ordinance or resolution. Connecticut law provides for the creation of parking authorities under state statutes. Although specific powers can be limited at the time of creation, the most successful parking authorities have the following powers and characteristics.

- The ability to acquire real property either through negation or its vested powers of eminent domain.
- A parking authority has a five member board of directors (some states permit more). The board is appointed by the mayor/first selectman with the consent of the municipal jurisdiction's legislative body.
- The board is empowered to hire a director and any and all other employees that it deems necessary to manage and operate parking facilities, processes, and functions under its jurisdiction.
- It is empowered to operate all public off-street parking within its jurisdiction's limit and some states like Connecticut, New York, New Jersey, Pennsylvania, and Maryland can manage on-street parking as well.
- It has the power to set rates for on and off-street parking, thus removing the rate setting process from the political arena.

- It has the power to create and approve its own budget. The budgets are generally intended to be revenue neutral.
- It may keep excess revenues from operation. This permits a parking authority to create reserves for future expansion and renewal/replacement.
- It has the power to issue bonds. Although theoretically possible, because of much more favorable interest rates, parking authorities almost always work with their Towns and seek its backing to procure bonds.

The Organizational Chart pictured depicts a full service parking authority that is self operated. The executive director would answer to its five member board.

A Parking Authority Organizational Chart



There are many hybrids of the structure shown. A variety of outside contracts can replace many of the functions. There are enforcement contracts, ticket collection contracts, maintenance contracts, parking management contracts, sweeping contracts, etc. These outside contracts would have to be managed and supervised. We are not recommending any or all of the contracts. We are simply listing them to indicate that the nature and staffing of a parking authority could vary significantly by the introduction of outside contracts.

A Parking Department – Although some parking departments manage on and off-street parking, parking departments sometimes manage off-street parking alone and rely on their police departments to manage on-street parking. If the parking department operates both on and off-street parking, it qualifies as a single source responsibility center; if it manages just off-street parking it remains fragmented and does not qualify as such.

The management and operations responsibilities associated with parking departments are not unlike those of parking authorities. However, some fundamental differences do exist between parking authorities and parking departments. Parking departments can only

recommend rates and budgets, not authorize and adopt them. As is the case with any department, the department has a leader – the department head.

One of the main problems is that parking departments must compete for funding in the municipal budget environment and cannot operate as a business. It is difficult to explain to town legislative and other body leaders why a parking structure's restoration needs or other capital projects are more important than other competing interests. Unlike parking authorities, parking departments must use the Town's powers to acquire property and financial processes to expend funds. Also unlike parking authorities that are self-sufficient, parking departments must use other professional services provided by the Town for such items as legal issues and fiscal oversight.

A Parking Department Organized as an Enterprise Fund - A parking enterprise fund is an accounting construct of municipal government that follows a businesslike model and is intended to generate adequate income to be self-sustaining. This model does not have a board of directors and relinquishes two extremely important powers that are embodied into most parking authorities, that is, the power to approve its own budget and the power to set its own rates. Instead, a parking enterprise fund is in a recommending capacity to balance its budget through rate setting and expense control. The Town controls the budget in the same manner as other departments.

As previously noted in this report, the Town does have a Parking Enterprise Fund; however Greenwich's Parking Enterprise Fund is not tied to a single source parking management entity. The Fund is disbursed during the budget process to departments that have parking management responsibilities, and absent specifically defined guidelines, other departments can seek after funds.

A Parking Division Organized Under an Existing Department – Parking divisions organized under other departments are most often used in situations where a municipal charter limits and defines the number and nature of departments and government/political leaders are unable or unwilling to seek a charter change.

Parking divisions have similar, but diminished, powers and abilities that are associated with parking departments, however have one more liability. They must first compete for budget dollars within the departments in which they reside as a subordinate entity, and then compete for funds in the larger budget environment against other departments. When funding is tight and other major Town/Parent Department initiatives manifest themselves, the primary department directives are usually satisfied first at the expense of the parking division's fiscal and staffing requirements. Because of this funding liability, parking divisions are generally weaker than parking departments and find it more difficult to bring about significant change.

Necessary Considerations

Before the Town considers one of the parking management alternatives to deliver parking services, the impact of change needs to be measured. When a new parking management entity is formed, there is a general belief that existing staff would merely be transferred to the new entity. It is seldom that uncomplicated. Many departments that had staff work on parking related projects did so on a part-time basis. Therefore, not all staff fit the profile of simply moving to a new parking management entity. Although it may be that straightforward with those employees that perform full-time parking related responsibilities, with the employees that have time devoted between parking and other responsibilities from their respective departments it is not that simple. Some employees will need to be reclassified. The question is what function would they perform in a new parking management entity, and what new responsibility would they assume if they remained in the same department? This difficult issue will need to be dealt with.

This is a particularly salient issue for the Town's Police Department. Since the Police Department currently relies on enforcement staff to perform other responsibilities, these non-parking responsibilities will still need to be performed. Consequently, some current parking related personnel will most likely still need to remain within the Police Department. It is important to start the new parking management entity with a non-adversarial relationship with the Police Department because Police help will be called upon to support the new parking entity's programs and protect its personnel.

During interviews conducted with police representatives, it was mentioned that parking related functions "*distracts from prime directive of Police Department*". It was also pointed out that a 1998 management study of the Police Department recommended that the Police Department should not manage parking. In general, police representatives agreed that it would be prudent for the Police Department to divest themselves of parking management and operations responsibilities, and the representatives expressed a cooperative attitude towards the concept. This is not to say that some representatives did not feel some concerns over the change and privately express apprehension about the security of their jobs. It was however a high level statement from the Police Department that acknowledged that the change would ultimately benefit the Police Department and the Town. Certainly, the old adage that *the devil is in the details* applies to this situation.

Recommended Parking Management Structures

Unlike other municipal functions that are on the expense side of the municipal budget, parking produces income – it is both a business and a municipal service. Because of this fundamental difference, placing parking in the same structural mold as other departments makes the delivery of parking services difficult to emulate a businesslike model.

Allowing parking management and operations to operate as a business is an important consideration in the selection of a parking management entity. Because any successful parking management entity must have strong buy in by Town leaders, the other major consideration is to determine which parking management entity would be most trusted and best fit the governmental style of Greenwich.

As previously noted, any of the recommended parking management entities that are presented for consideration would be an improvement over the current fragmented delivery of parking services. The question that needs to be resolved is which entity would be most successful and accepted in Greenwich? This is a decision that the Town must make.

Based on national performance, *a parking authority* would be most capable of being able to follow a businesslike model because of its self-sufficiency. Parking authorities are unencumbered by the devices that detract from their capability to focus on their prime directive – the delivery of parking services. Their funding is based on user fees and their budgets are approved by their board of directors based on the advice of their director and their advisors.

There are some that fear the autonomy that is inherent in authorities. However the autonomy that is imbued in authorities is the fundamental reason for their success. Sometimes there is resentment and concern that authorities do not have the same constraints placed upon them, as do other departments. If the Town selects a parking authority as its parking management entity, it requires a respected board of directors and a talented and experienced parking director. These components are important to instill confidence in its delivery of parking services and fiscal management. Frankly, parking authorities tend to be supportive of the town's needs and intertwined in the municipal environment.

It is believed that the establishment of a parking authority is the strongest measure that can be taken to bring about fundamental change to the Greenwich's parking program. Based on our interviews with Town representatives, past suggestions that an autonomous agency should be created have met resistance. *If the Town can develop the necessary trust and confidence in an autonomous agency created under Connecticut State Statutes and by a legislative act of the Town, a parking authority would have the best tools to streamline and improve the parking system. Without this support and confidence, this parking management entity is destined to fail.*

The next two options would be to consider the creation of a *parking department* or a *parking department organized as an enterprise fund*. To remove the fragmentation in the delivery of parking services, a parking department or a parking department organized as an enterprise fund would need to be charged with the responsibility of managing on

and off-street parking resources, and accept responsibility for the oversight of the ComPlus ticket tracking and collection contract and other future contracts that may be required. Because the Town already has a parking enterprise fund, albeit a paper fund, we dismissed the notion of a pure parking department because it would be regressive to destroy a viable fund and because of a parking department's inability to operate in a businesslike manner. Instead, our focus will be the consideration of a parking department organized as an enterprise fund.

Unlike a parking authority, a *parking department organized as an enterprise fund* continues to be a construct of Town government. Like a parking authority, a parking department that is organized as a parking enterprise fund can follow a businesslike model. Theoretically, funding is based on user fees; yet unlike a parking authority it cannot approve its own budget or set its own rates– it can only recommend such. The funding approval aspect introduces limitations on autonomy and its ability to live outside the political environment. A parking department that is organized as a parking enterprise fund is however a single source responsibility center that can focus on the prime directive – the delivery of parking services.

If the Town cannot develop the necessary trust and confidence in an autonomous agency, like a parking authority, a parking department that is organized as a parking enterprise fund would be a viable, yet weaker option. Although not endowed with the best tools to streamline and improve the parking system, this management approach does have focus and concentration on parking related issues. Some within the parking industry consider a parking department organized as a parking enterprise fund as a more difficult way to accomplish what a parking authority can more easily achieve. As is the case with any of the recommended parking entities, strong buy in and support by Town leaders is essential along with a talented and experienced parking professional.

The final option would be to consider the creation of is a *parking division within an existing department*. This option can work if there is a parking manager with that is given sufficient autonomy to focus *solely* on parking. In some towns, and in the name of cooperation, situations present themselves whereby parking managers are used for other department priorities. This would defeat the concept of having parking managed under a single source responsibility center and severely weaken the ability of the parking manager to focus solely on parking issues.

Assuming that a parking division within an existing department could be supported through the Parking Enterprise Fund, the budget concern of having to compete for funds within the department in which it resides is not an issue. If the Parking Fund is not available to the parking division and competition for funds within the department in which it resides is a real problem, a parking division would be the weakest choice.

During the course of interviewing Public Works Department representatives, it was made known that the Department was interested in managing on and off-street parking. For this to successfully occur within that department, not only would it be necessary to hire a parking director that would be fully dedicated to parking management, it would also be necessary hire or absorb staff from other departments that are *solely* dedicated to parking management. *Therefore, if a parking division organized under an existing department could have a parking professional and staff that is fully dedicated to parking management and have sufficient access to the Parking Fund, including managing the entire Parking Fund budget to meet its mission and goals, it can approach the level of success that a parking department organized as an enterprise fund can.* Since the Public Works Department currently manages and operates many off-street parking functions, except the enforcement component, and the Police Department is willing divest itself of that function, establishing a parking division under the Public Works Department would be the logical home from which to deliver parking services.

A Parking Professional

During the course of this section of the report, numerous references were made to the need for a parking professional. Parking management is a business and a craft that requires broad base knowledge of municipal parking. The parking professional must be cognizant of and understand both on and off-street parking strategies and tactics, the relationship between on and off-street parking, and possess the ability to apply these skills to meet the mission and goals for the parking system.

We recommend that a parking professional should be hired immediately after the creation of the selected parking management entity. A well-crafted parking entity needs an experienced and knowledgeable manager who is solely dedicated to parking management. This position in Town government is generally a department director level position. We further recommend that the Town should embark on a nationwide search to locate a parking professional that has a proven track record in municipal parking management and is capable of demonstrating a full understanding of the fundamental issues and expectations for Greenwich's parking program.

Effective parking management requires expertise and experience. It specifically requires the following:

- Public relations skills
- Contract management skills
- Personnel management skills
- Property management skills
- Negotiating skills
- Knowledge of how to operate a cash business

- Knowledge of the parking construction process
- Knowledge of how to interact within the municipal environment
- Knowledge of parking management strategies
- Knowledge of transportation system management objectives
- Land use planning skills

In any parking management entity, the parking professional should be the central point of contact for all parking concerns. Parking management needs an experienced leader. If the Town creates a parking management entity and hires a parking professional, it would be the first time that Greenwich would have a name and an organization attached to the word “PARKING” and to its Parking Fund. If this occurs, there should be no question concerning on and off-street public parking management responsibility. That responsibility resides in the municipal parking management entity and is represented by its leader.