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Brownfield Development

By

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Abstract

“Brownfields” is the generic name now used to describe real estate properties with low to medium levels of contamination. Because of the manageable levels of contamination, brownfields are increasingly seen today as potential development and investment opportunities rather than environmental nightmares. Two hundred thousand to five hundred thousand of such sites are estimated to exist across the U.S but attempts to clean them up has been extremely slow. It is an issue that has captured a great deal of political attention in the last twenty years while both the public and private sectors seek solutions.

Most studies on brownfields to date have focused on the public benefits to be achieved through redevelopment. This study will instead view things from the perspective of the private sector and will attempt to increase our understanding of how the various parties involved in brownfield redevelopment evaluate, distribute and mitigate the various associated risks. This thesis, as part of a larger study, will explore brownfield redevelopment as a function of risk and return. Key questions will include: how are the additional risks involved in this type of project dealt with, what new tools are being developed for dealing with these risks and how are the various parties allocating these uncertainties among themselves?

Through the close examination of two case studies, some of these mysteries will be unraveled. The first case, a twelve acre site in Stamford Connecticut, was developed

by the Swiss Bank Corporation in cooperation with the city of Stamford and the State of Connecticut and will house the Bank's main North American operations. It is an excellent example of what can be accomplished when the public and private sectors work together to solve the various problems of risk and liability associated with brownfield redevelopment. The second case study is an eleven acre site located in Massachusetts. In contrast to the first case, this property was purchased by a group of investors experienced specifically in brownfield redevelopment for the sole purpose of resale. It will provide the reader with a glimpse of the hurdles that must be overcome to make such a project successful and how detailed "knowledge of process" can add significant value to that project.

In view of these success stories, of which there are a limited number, certain lessons can be learned. For instance, special attention should be paid to issues as diverse as the company form, the intrinsic real estate value, the redevelopment team, the P & S agreement, and insurance. Throughout this process, one thing is clear; the private sector *can* help to solve these problems with the right incentives. The goal for public policy should, therefore, be to continually strive for a process that is less intimidating and more attractive to private sector investment.

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TABLE OF CONTENTS

Chapter One	5
Overview	
<i>Introduction</i>	5
<i>Brownfields</i>	6
<i>Benefits to Brownfield Redevelopment</i>	8
<i>Risks: Traditional Real Estate Development vs. Brownfield Redevelopment</i>	9
<i>Recent Moves Towards Positive Change</i>	10
<i>Research Approach</i>	12
Chapter Two	14
Risk-Sharing Mechanisms	
<i>Introduction</i>	14
<i>The Main Players</i>	15
<i>The Business Entity Decision</i>	17
<i>The Purchase and Sale Agreement</i>	19
<i>Environmental Assessments in a Purchase and Sale Agreement</i>	20
<i>The Financing Agreement – The Letter of Commitment</i>	22
<i>Remediation Contractor's Agreement</i>	23
<i>Occupancy Agreement (Sale or Lease)</i>	24
Chapter Three	26
Case Study 1: Swiss Bank Corporation, Stamford, Connecticut	
<i>Introduction</i>	26
<i>Site Search and Selection Process</i>	27
<i>The Site</i>	28
<i>Estimated Cost of Remediation</i>	30
<i>The Memorandum of Understanding</i>	31
<i>The Land Title Transfer</i>	34
<i>Remediation Cost Sharing/Risk Sharing</i>	35
<i>Conclusions</i>	39
Chapter Four	40
Case Study 2: 10 Trafalger Junction Road, Massachusetts	
<i>Introduction</i>	41
<i>The Site</i>	42
<i>Site History</i>	42
<i>XXX 10 Ltd.</i>	45
<i>The Process</i>	46
<i>The Risks</i>	54
<i>1997</i>	57
<i>Conclusions</i>	57
Chapter Five	59
Conclusions	
Appendices	64
Bibliography	71

Chapter One

Introduction

The Industrial Revolution, begun in England in the early 1800's, started in earnest in the United States near the end of the 19th century. It was a period of unmatched prosperity, optimism and change as the country transformed itself from an agricultural society to one primarily focused on manufacturing. Unfortunately, it was also a time of unparalleled destruction to the natural environment, polluting air, earth, and water. This negative impact was not immediately apparent to the majority of Americans but slowly the high price the environment was paying in the name of progress became obvious. By the early 1970's the U.S. government began to initiate crucial first steps to stop the destruction. By the end of that decade the country had become far more "environmentally conscious" and environmental issues had risen to the forefront of the political arena.

Of primary importance was to find a viable solution for dealing with the multitude of contaminated industrial properties throughout the country. New laws were soon passed to address these rising concerns but, unfortunately, they were too strict and inflexible. All contaminated sites were mandated to be returned to "pristine" conditions and almost anyone associated with them was potentially liable for the clean-up. As a result, investors, developers, and lenders avoided these properties like the plague and existing owners kept contamination a secret at all costs. Now, almost two decades later, few of these problems have been solved. In fact, matters have arguably been made worse in the last twenty years with the nation's major shift in industrial methods. Traditional heavy manufacturing has given way to light manufacturing and specialty production requiring smaller and more compact factories. Changing markets, international

competition, and advances in production technologies have driven this trend. Many communities have experienced plant downsizings and shutdowns, leaving underused or abandoned industrial sites in their wake.

However, the political climate is beginning to change. Federal, State and local governments are now attempting to attract the attention of the private sector by making redevelopment less risky and sufficiently profitable. The rules of the game are slowly changing but where it will lead is still relatively unknown.

Brownfields

“Brownfields” is the generic name used to describe most of these problem sites. Distinctions have been drawn between two types of contaminated sites; those on the National Priorities List and those with low to medium levels of contamination (i.e. brownfields). The National Priorities List contains 1,300 high priority sites representing the greatest environmental hazards. They can generally be characterized as sites with significant public health risks and extremely high clean-up costs. Brownfields, on the other hand, have more manageable levels of contamination and are increasingly seen as potential development and investment opportunities rather than environmental nightmares. Estimates range from 200,000 to 500,000 of such sites across the U.S. and if all were remediated the price tag could reach \$650 billion.¹ The Environmental Protection Agency (EPA) estimates that 70 million Americans, including 10 million children, live within four miles of one of these sites.²

¹ U.S. EPA, Tool Kit of Technology Information Resources for Brownfield Sites, DRAFT Version, November 1996, p.1.

² M2 Communications Limited, U.S. EPA: Administrator Cites 400th Superfund Cleanup, October 16, 1996.

In 1980, the Federal Government passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to address these environmental concerns. The fundamental position embraced by CERCLA was that polluters should pay for their own cleanup. It was, and still is, the most significant environmental statute affecting the cleanup and transfer of contaminated properties. Ironically, this legislation severely hampered the very clean up effort that it was intended to encourage. CERCLA, or Superfund, as it is more commonly known, mandated strict, joint and several liability for all owners of a given property; all operators and tenants of that property; and all generators and transporters of hazardous materials to and from that property. In other words, it allows the government to go after past owner/operators of a site whose actions contributed to the contamination *and* to go after those parties with the greatest ability to pay, regardless of fault. Although this new law promoted greater awareness of pollution and convinced most people that it was cheaper to prevent contamination than to incur the liability and costs of cleaning it up, it also made the transfer of contaminated property nearly impossible. The fear of liability, rather than promoting cleanup, froze activity on these sites indefinitely. It wasn't long before involved parties began to fight fierce battles in court. Past and present owners, developers, builders, tenants and government agencies all began pointing fingers at one another, spending billions of dollars in an effort to avoid or limit the astronomical costs involved in cleaning up the contamination. According to one study, more than one-third of the \$11.3 billion spent by the private sector on Federal Superfund sites between 1980 and 1991 went towards litigation rather than cleanup.³

Adding to the problem by creating additional uncertainty was the 1990 United States v. Fleet Factors decision by the U.S. Court of Appeals. Fleet Factors held that a

³ Silber, Kenneth, When Cleanliness Isn't a Virtue, *City Journal*, © 1996, Bank of America.

lender could be considered an owner/operator if its involvement is “sufficiently broad to support the inference that it could affect hazardous waste disposal decisions if it so chose... it is not necessary for the secured creditor to actually involve itself in the day-to-day operations of the facility in order to be liable”.⁴ This decision ran counter to the secured creditor exemption in CERCLA and the uncertainty generated from this resulted in a scarcity of traditional debt capital available for the few remediation and redevelopment efforts being attempted.

Benefits to Brownfield Redevelopment

Both government and private entities have much to gain by adapting brownfield sites into new uses. From the public perspective, redevelopment could restore not only the buildings and their physical environment, but also the jobs and vitality of the communities surrounding them. Revitalization would particularly benefit low-income and minority residents who have suffered the economic and health consequences of living near blighted buildings and contaminated lands. Reuse also can take advantage of existing infrastructure systems and thus reduce suburban sprawl. By returning these facilities to productive use, cities can create jobs, boost tax revenues, and produce numerous social, environmental, and aesthetic benefits. The private sector, on the other hand, has very different motivations and views brownfield redevelopment like any other investment opportunity – in terms of risk and return. Private capital will only invest in brownfields if the risks associated with the investments are justified by the potential financial rewards. In the last 18 months fund managers and advisers have begun forming alliances with real estate concerns and environmental consulting firms, with the specific

⁴Bartsch, Charles and Elizabeth Collaton. Brownfields – Cleaning and Reusing Contaminated Properties,

aim of acquiring, cleaning up, redeveloping and either managing or selling contaminated properties.⁵ Several billion dollars, according to some estimates, has been recently allocated to invest in environmentally impacted properties.⁶

Risks: Traditional Real Estate Development vs. Brownfield Redevelopment

All real estate transactions entail risk. The “traditional” real estate development risks include:

- 1) Approval risk: the risk that the project will not receive the public approvals necessary to commence construction and occupancy,
- 2) Construction risk: the risk that the project will not be built on budget or on time,
- 3) Interest rate risk: the risk that interest rates will rise during the construction and lease-up period in excess of budget expectations,
- 4) Market risk: the risk that the project will not generate the expected cash flows in the marketplace either due to slower than expected lease-up or sale, or due to lower than expected rents or sales prices,
- 5) Operating risk: the risk that the cost of operating the project once constructed will be in excess of budget.

Brownfield development introduces additional risks to those of a “traditional” real estate development project. For instance, investors in a brownfield project face the risk of future environmental liability that is rarely considered on a “clean site” project and can result in significant unforeseen financial obligations. Brownfield projects are also subject to additional construction and operating risks since future remediation costs may arise either due to discovery of additional wastes on site, or due to the adoption of more

Washington D.C.: *Northeast – Midwest Institute*, 1997

⁵Feldman, Amy, [Brownfields Bear Fruit for Developers: Contaminated Sites Promise Big Yields](#), *Crain's New York Business News*, November 11, 1996

⁶ Ibid

stringent future regulations. Third party liability is also a major concern. For instance, properties that abut a source site are often contaminated through groundwater migration, opening the door for third party lawsuits. Finally, investors in a brownfield project face additional market risks. Will tenants be willing to locate to sites that have troubled environmental histories? Will space in such projects trade at a discount to the market because of the environmental history? The factor that makes all of these additional risks unacceptable to private sector investors is their inherent unpredictability. If these risks could be predicted and quantified with any degree of certainty, expected returns could be adjusted accordingly and many more brownfield projects could be undertaken. To date, this has been rare.

Recent Moves Towards Positive Change

Investment in brownfields can be stimulated in one of three ways: decrease the cost of the initial investment, decrease risk, or enhance returns. Progress has been made by both the private and the public sectors in each of these areas and this has led to recent increases in brownfield investment activity.

Cost reductions have been accomplished in the public arena through a range of policy initiatives. For instance, many states have begun to enact voluntary cleanup legislation which permits less stringent cleanup standards for properties intended for commercial and industrial use. This can significantly change the economics of remediation, as typically 50% of the cost of remediation is incurred removing the last 5% of the contaminants.⁷ This approach, known as “Risk - Based Corrective Action” or

⁷ Taylor, Rodney J., You Don't Have to Bet the Company, Willis Coroon Environmental Risk Management Services, June, 1996

“Rebecca,” has been considered quite successful to date. Using this approach can save a developer a great deal of money and can easily turn an uneconomical project into a potentially profitable one. Policies addressing the need for reduced risk have also been established recently. For example, assurances are now sometimes given by the regulatory authorities that, once a remediation program is approved and completed, further remediation will not be required. This “No Further Action” letter removes much of the investor’s future potential liability, thereby effectively mitigating risk. The specific characteristics of brownfields initiatives vary from state to state, but they generally conform to this general description. Today, 30 states have enacted legislation with these or similar provisions, and at least 10 others have informally adopted them.⁸ These initiatives are advancing rapidly and are now recognized as the most practical incentive to cleanup contaminated sites.

In the private sector, the risks associated with the remediation process itself are becoming better understood with the successful cleanup of contaminated sites. Engineers and environmental consultants can adequately characterize the environmental conditions of most sites and they can provide estimates of cleanup costs that are associated with a chosen remediation technology. The variability in quantifying the contamination of a site, and in the ability to estimate cleanup costs depends on the nature and extent of the problem. For some contaminants (i.e., petroleum contamination in soil from a leaking underground tank), the accuracy of cost estimates for cleanup are usually within 90%.⁹ In other words, the safety factor investors must build in to their proformas is less than 10%. For other sites, where multiple contaminants are involved and/or groundwater

⁸ Pepper, Edith M., *Lessons from the Field, Northeast – Midwest Institute*, Washington, D.C.1997

⁹ Taylor, Rodney J

remediation is required, the accuracy of cleanup estimates drops significantly. In some cases, the best guess of engineers may be off by as much as 50% or more.¹⁰

Insurance protection has advanced significantly in the last few years as well and is now available for most of the risks associated with brownfield projects. By limiting or eliminating some of the risks faced by investors, developers, contractors, lenders and others, insurance can play an important role in promoting redevelopment.

Also important to bringing viable brownfield properties to the marketplace was the recent Security and Exchange Commission's change in financial accounting standards. These new regulations have increased pressure on publicly traded corporations for greater disclosure of environmental liabilities and recognition of reduced value due to environmental contamination.¹¹ This should result in the direct write-down of property values on their financial statements and cause an immediate affect on earnings. This should also impair their cash flows as more funds must be set aside in reserves to meet these liabilities. The impact of these new disclosure requirements will be to create greater incentives for property owners to either remediate or divest.

Research Approach

Most studies on brownfields to date have focused on the public benefits to be achieved through redevelopment. This study will instead view things from the perspective of the private sector and will attempt to increase our understanding of how the various parties involved in brownfield redevelopment evaluate, distribute and mitigate the various associated risks. This thesis, as part of a larger study, will explore

¹⁰ Ibid

¹¹ States Take the Lead in Brownfields, *Environmental Business Journal*, February 1997

brownfield redevelopment as a function of risk and return. Key questions will include: how are the additional risks involved in this type of project dealt with, what new tools are being developed for dealing with these risks and how are the various parties allocating these uncertainties among themselves?

Brownfields are typically recognized for their complexity and this very complexity has kept many from considering them as a viable possibility for investment and development. Through the close examination of two case study sites, some of these mysteries will be unraveled. By interviewing the participants and examining the actual documents used to allocate these risks, an understanding of the nature of the opportunity from the private sector's perspective can be gained. Such insights have important implications for understanding the depth of this marketplace, and the effective crafting of public policy at the federal, state and local levels, thereby reducing barriers to redevelopment.

Chapter Two

Risk-Sharing Mechanisms

Real estate development is a multifaceted business. It is the art of building real estate value by managing development risk. It encompasses activities that range from the renovation and re-lease of existing buildings to the purchase of raw land and the sale of improved parcels. The developer, as the key player in the development process, will typically coordinate all the activities necessary to bring a project to fruition. In order to do this he or she must interact with a variety of different people: building professionals including architects, planners, contractors and consultants; people in the construction trades; tenants and customers; attorneys, bankers, and investors; city officials, inspectors, citizens' groups and community organizations; and end users be they tenants or purchasers of the developed property. All of these "actors" have a stake in the outcome of a development project. Each has their own set of goals and objectives and each assumes a portion of the development risk. These criterion are expressed through the implementation of contract documents which set out in detail the obligations of each party towards all the other parties.

Before the emergence of environmental laws and litigation in the 1980's, developers and others were faced with traditional, well-understood risks when considering the purchase and development of property. These risks typically were related to the market value of the property, the difficulty of obtaining the appropriate permits, the financing terms, and other project related factors. The term, "let the buyer beware" did not preclude savvy investors from taking chances on marginal or speculative deals. Now, with the introduction of environmental concerns, all the players in the development

process are exposed to greater risk. The contract documents used throughout the development process to mitigate and distribute these risks have therefore become increasingly important.

There are various documents used in the development of real estate that define the intentions and obligations of the involved parties. These documents, from the purchase and sale agreement to the leasing contracts, enable each participant in the development process to assume a certain level of confidence that each commitment will in fact come to pass. This allows all the players to move forward and begin spending time and resources towards their individual goals without fear of the deal “falling through”. A detailed look at the main players and the more important documents will give the reader a sense for the conventional mechanisms for distributing risk and return and provide an important baseline from which to unravel the complexity of brownfields transactions.

The Main Players

Developing environmentally contaminated property has far-reaching implications for all the parties involved in the process but this is especially true for the following:

Buyers who may be forced to assume liability for remedial action costs regardless of their responsibility for the presence of hazardous waste on the property. The costs to investigate and correct environmental problems can be tremendous, and the process, which typically requires governmental regulatory agency approval and supervision, can be lengthy.

Sellers who may be held responsible for the investigation and remedial action of environmental problems at a site due to regulatory statutes or as a result of contractual

language. For instance, sellers have a legal obligation to disclose *known* problems to potential purchasers and, therefore, have an incentive to discover and quantify potential hazards before entering into negotiations with others.

Contractors who engage in remediation contracts with a property owner. They will be exposed to potential liability through their handling of the contaminants.

Lending Institutions, since the relative value of the property or loan may be significantly decreased due to the presence of environmental contamination. In some cases, lending institutions can be held directly responsible for investigation, remediation, and/or long-term oversight and monitoring costs. The 1990 U.S. vs. Fleet Factors decision established that lending institutions did not necessarily have to foreclose on a property to be considered liable. It was enough to simply be deemed influential when decisions were being made¹².

Landlords/Property Management Firms who may be responsible for the ultimate environmental impact of their tenants' negligent actions.

Tenants, who may be subject to immediate termination of their lease upon failure to disclose to the property owner information about known or suspected contamination., Tenants may also be liable for cleanup of their own contamination or, under certain circumstances, even that of former tenants'. Tenants may also make commitments to lease space in formerly contaminated properties contingent on proper remediation.

¹² Sterling, Burnett C., The State of Environmental Reform, *Investor's Business Daily*, January 16, 1997

The Documents

The Business Entity Decision

When a property is being considered for acquisition, ownership, operation, or development, a decision must be made as to what type of business entity to form for this enterprise. This is an extremely important issue for two main reasons: 1) taxation implications and 2) exposure to liability. Avoiding liability – or at least limiting it – is a dominant issue in the entity selection process of any company. Investors must be given the assurance that they are not putting their entire net worth on the line before they will consider investing in an enterprise. With brownfield re-development, the importance of limited liability rises well above the norm. The potential costs of the unforeseen are astronomical so protection from disaster must be made available for the private sector players.

Equity investors subject themselves to three basic forms of liability: liability imposed by law, tort liability, and contract liabilities. Protection can be gained from the first two forms by choosing a limited liability entity but exposure to the third is always unavoidable. Liability imposed by law, such as unexpected contamination cleanup costs forced upon an owner by a governmental agency, is still a serious matter regardless of the reduced exposure. Investors are liable for up to 100% of their invested capital. The advantage of course is that they cannot be made liable for up to 100% of their net worth. Tort liability is also reduced through the use of a limited liability entity. If a neighbor suddenly fell ill and was convinced that it was from the contamination next door, he could file suit against the company. However, even if a court awarded damages equal to ten times the value of the property, the investor would only be liable up to the amount of their invested capital. This ability to limit all unknown risks and liabilities to the dollar

value of capital invested enables investors to inject life into countless projects that would otherwise be stillborn. Contract liabilities, on the other hand, are entered into deliberately by all parties. Each potential drawback has presumably been considered and priced into the deal. Given the business nature of contract liabilities, third parties, such as banks, often require guarantees to provide some avenue for recourse, reducing the shield provided by the limited liability entity.

There are seven basic forms of business entity that exist in the U.S. today: Sole Proprietorships, General Partnerships, Limited Partnerships (LP's), Registered Limited Liability Partnerships (LLP's), Corporations (Corp's), Small Business Corporations (S Corp's), and Limited Liability Companies (LLC's). If limited liability status is the overriding issue, as it usually is in brownfield development, then the choice is narrowed to four entity forms: LP's, LLC's, Corp's, or S. Corp's. Each form has its pro's and con's and to choose between them is sometimes difficult.

Limited Partnerships require limited partners and at least one general partner: The limited partner's liability is limited to his or her capital investment unless he or she actively participates in the control of the business. Limited partners must be passive investors or they will lose their limited liability status. Limited partnerships are also required to have a General Partner with unlimited liability. This problem can sometimes be circumvented by structuring an entity, such as a corporation or an LLC, as the General Partner.

Limited Liability Companies are relatively new non-corporate entities organized to limit liability of their members and also provide the opportunity for the flow-through tax treatment of partnerships. They are generally considered better than the limited partnerships on the issue of liability protection because they do not require a general

partner. Because they are such new entities, their status in the courts is still a bit uncertain..

Corporations are legal entities formed under state law that provides their owners – the shareholders – with limited liability. The law treats a corporation as having an existence distinct from that of its owners and, accordingly, taxes the corporation as an entity separate from its shareholders. This double taxation is usually seen as a major disadvantage to this type of entity.

S. Corporations are treated as a partnership for tax purposes and as a corporation on all other issues. It therefore offers limited liability for its shareholders without the burden of double taxation. However, for technical reasons, S. Corporations are rarely used to hold investment real estate.

The Purchase and Sale Agreement

The purchase and sale agreement is the central document of any real estate transaction. It specifies the business terms, provides a scenario for how the transaction will be closed, and defines the legal obligations of the parties before, at, and after the closing.¹³ From the seller's perspective, the P&S is the means by which the buyer commits to the purchase. The seller wants a commitment because he will incur expenses and lose opportunities by holding his property off the market. A seller generally will not want to tie up his site unless he is reasonably confident that the deal will go through. The P&S gives him that level of confidence. The P&S agreement also serves to assure the buyer that the seller will go through with the deal. The buyer must spend substantial time, effort and money to prepare for the closing – examining title, inspecting and

surveying the property, reviewing leases and arranging financing¹⁴. The buyer would be reluctant to invest this much time if the seller could back out at the last minute for no reason.

Environmental Assessments in a P&S

When purchasing a property, buyers must automatically assume that it may be contaminated. The Superfund law has a safe harbor for innocent buyers of real estate who have no knowledge of hazardous substances on the property. However, the innocent buyer must show that he made “all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice in an effort to minimize liability.”¹⁵ This inquiry is known as an environmental assessment. The scope and cost of the assessment depend on the price of the property. A thorough assessment generally has two parts: 1) an evaluation of all current and prior users of the property and 2) a physical inspection of the property.

In evaluating the uses of the property, a buyer should seek out as much information as possible from the seller. Information pertaining to all current and past uses of the site by the seller and by previous owners is extremely valuable. The buyer should examine an abstract of title showing all prior titleholders and tenants under recorded leases to determine who used the property prior to the seller. Old surveys and land use maps can also provide clues to past uses of the property. Finally, the federal EPA and most affiliated state agencies have computer lists of sites at which hazardous

¹³ Mack, Robert W., Esq., Negotiating and Drafting the Purchase and Sale Agreement, Hale and Dorr, Boston

¹⁴ Ibid

¹⁵ Ruthven, Shawn, Negotiating the Purchase and Sale of Real Estate Transactions, *Environmental Business Journal*, April, 1996

substances may have been released. Additional documents that could be reviewed include permits, manifests, reports of spills, litigation files, capital budgets, transfer documents to the seller, tax or utility records, notices regarding offsite contamination, and notices and tests regarding underground storage tanks.

The second part of the assessment process is a physical inspection of the property although the prospective purchaser will likely want to delay soil or materials testing until the last moment because of the high cost.

The final step in the assessment process is resolving problems that may have arisen. All problems might be corrected by the seller prior to closing or the buyer might assume the responsibility for cleanup and deduct the cost from the purchase price. The parties may also choose to do nothing at the time of sale but may enter into an agreement allocating responsibility if cleanup later proves to be unavoidable, perhaps with the seller posting a letter of credit or other security. Alternatively, the buyer may avoid the risk of responsibility all together by leasing the property or buying only the uncontaminated portions. Once the buyer owns the property, liability cannot be easily averted. No indemnity agreement among private parties is effective against the government and an asset purchase is always recognized as a transfer of all associated liabilities.

At some point near the closing of a transaction the buyer and seller must agree on what representations, warranties, conditions, and indemnification provisions to include in the sales contract. Obviously the fewer representations and warranties about the condition of the property the seller can make, the less the potential liability will be. Most sellers would prefer to sell property in an "as is" condition, provided it doesn't affect the sales price. However, even with an "as is" provision in the sales contract, it cannot

override a claim of fraud against the seller if the seller conceals known defects, such as site contamination. In fact, a statute enacted in California mandated written disclosure of hazardous substances by a seller if the seller merely has “reasonable cause to believe” that such hazardous substances exist on the property.¹⁶ This seems to indicate that the principle of “buyer beware” is no longer applicable in the case of environmental contamination. Therefore, to avoid the risk of a lawsuit, the seller should attempt to identify the existence of any contamination risks as early in the process as possible. Once the risks are clear the seller should first try to allocate some of the cleanup risk to the buyer without reducing the purchase price and then try to limit the buyer’s right to contract termination if hazardous substances are found.

Buyers and sellers of industrial and commercial property cannot avoid coming into contact with contamination. The issue is to identify the risk of cleanup claims as early in the transaction process as possible, identify the likely amount of such claims, and allocate that risk among the parties to the transaction.

The Financing Agreement – the commitment letter

The term “financing” in its broadest sense, means using other people’s money. In real estate transactions, financing usually refers to the use of a lending institution’s funds in the form of debt. There are four basic categories of real estate related loans available in the market today: acquisition and development loans, construction loans, interim and bridge loans, and permanent loans. Although designed for very different circumstances, these loans have similar lending guidelines and require similar borrower guarantees to

¹⁶ Ibid

limit the bank's risk of lost interest, lost principle, or worse, additional liability over and above the amount of the loan.

The first step for a developer looking for debt financing for a project of any type is to get a commitment letter from a lender. The commitment letter represents the terms under which a lender is willing to advance funds against the project. The common terms that one finds in a commitment letter have to do with the nature of the security being offered and the amount of the loan, the timing, the repayment terms, the rights and obligations of the borrower as well as a set of representations and warranties from the seller. When dealing with properties with environmental histories concerns such as those mentioned earlier will have to be addressed.

To date, venture capital is the only common form of financing that is willing to take the real estate risk, the marketing risk, and the remediation risk of a Brownfield project. Although there are exceptions to the rule, self-appointed lending guidelines have kept most banks away from this "headache." Even with the Federal "Safe Harbor Provisions," banks do not yet feel secure enough in the process to price the additional risks, which are perceived to be high. This is fortunately beginning to change, albeit slowly. Lenders are becoming more knowledgeable and confident with environmental risks. The wide availability of debt financing for brownfield redevelopment may be on the horizon.

Remediation contractors agreement

The remediation contractor's agreement is a contract between the property owner and the party responsible for clean-up. It defines the scope of the work, how much it is

going to cost, what constitutes performance by the contractor, and how that performance is to be judged. How the performance is to be judged will indicate to some extent who bears the risk of the unknown. In other words, is the contract complete when a third party engineer gives it a stamp of approval, is it complete when the government says it is done, or is it simply a lump sum contract that is complete when a certain defined amount of dirt is excavated and removed? The contractor's agreement will also shed light on the insurance requirements of the contractor. Who is insured, for how much, and under what circumstances?

A second agreement that may be significant is one between the land owner and the regulatory authority which stipulates what is legally required to meet regulatory obligations. This may include mention of documents like covenants not to sue and/or understandings outlining clean-up expectations under the Risk Based Corrective Action (Rebecca) legislation.

Occupancy agreement (lease or sale)

The occupancy agreements also distribute risk between buyers, sellers, and tenants and certain things affect the sharing of these risks. The timing of the deal is of critical importance. For instance, if the project is pre-leased or pre-sold before clean-up is complete, then the tenant or buyer may be sharing some of the remediation risk. More commonly contaminated property is not preleased so the developer may be bearing all the future marketing risk. Unless the developer is planning to occupy the property, there will always be a certain amount of risk associated with attracting future buyers or future

tenants. Even after a site has been cleaned up, a negative stigma often stays with the property and someone must bear the risk of this becoming an issue with future parties.

Obviously the language of the contract is also crucial to the distribution of risk. When negotiating an occupancy agreement with a future tenant, the landlord will want certain assurances that the tenants, especially industrial tenants, are not engaging in unlawful activities. On the other hand, some sophisticated tenants may want assurances from the landlord that the property that they're going to lease has no unresolved environmental history.

If the property is being developed for sale, there may be issues of disclosure required by the seller and indemnifications by the buyer. One might also expect a sale agreement to include specific clauses obligating the seller to clean up the site to satisfactory conditions, representations by the seller as to the level of clean-up, as well as the rights of the buyer to come on to the site, inspect and do its own testing to ensure confidence before going forward with the closing of the sale.

Chapter Three

Case Study 1

Swiss Bank Corporation – Stamford, Connecticut

Introduction

Swiss Bank Corporation (SBC) was established in 1872 and is headquartered in Base Switzerland. The Bank operates 282 branches in Switzerland and 65 additional branches, subsidiaries, and representative offices abroad. With more than 23,000 employees worldwide, SBC is one of the three largest banks in Switzerland and among the ten largest in Europe. SBC has a major presence in every financial market in the world and ranks as 1 of the 6 financially strongest institutions in the world with a AAA rating.

On September 21, 1994, SBC executed agreements with the City of Stamford and the State of Connecticut providing for the relocation to Stamford of its main North American operation in a new 600,000 square foot facility. The 12 acre site is known locally as the “Gateway Site.” It is bounded on the south by North State Street, on the west by Washington Blvd., on the north by St. John’s Towers and Federal Street, and on the east by Atlantic Street. (See Map – Exhibit #1) SBC’s selection of the Gateway Site concluded an extensive search of potential alternatives within the Metropolitan New York Area and represents the first large scale commitment of a financial services firm actively trading securities to a suburban location outside Manhattan. Most importantly, the site permitted a key development goal of SBC – to achieve full occupancy of phase I

by the end of 1997. It was also the first major commercial office project built in Stamford in the last five years. (See photo of model – Exhibit 2)

The site was created by the assemblage of 32 lots and the demapping of two streets. This was achieved through a complex alliance involving the Swiss Bank Corporation, the Stamford Urban Renewal Commission, and the State of Connecticut. Much of the site had been used for automobile repair shops, rental car agencies, and filling stations so SBC conducted very thorough environmental examinations prior to land acquisition. Although contamination was found to be wide-spread throughout the site, most of it was found to be non-hazardous. Environmental remediation included excavation and removal of soil contamination, removal of buried gas and oil fuel tanks, and a limited amount of treatment to remove petroleum products from the ground water.

Site Search and Selection Process

In 1993, SBC developed a new strategy (Vision 2000), shifting its emphasis from Commercial Banking to Investment Banking and established the objective of becoming one of the leading international banks. As a result, SBC realized that these new business needs could not readily be satisfied in its current facilities. In December 1993, a proposal was presented to senior management for relocation and expansion of its New York facilities. This proposal, completed by Donovan, a real estate advisory firm, included a review of ten sites that had been screened from more than 40 possibilities. As one of the final ten, the Stamford site was very well known in the local real estate community. The City of Stamford had not been aggressively marketing the site but they were very receptive to the SBC's plans because it represented an opportunity to clean up the area

and build a “gateway” to the city, creating a transition from the railway and the highway to the Central Business District. Other sites making the final ten were in Westchester County, New York; and midtown and downtown Manhattan.

Analytic comparisons of these sites and associated issues were based on data provided by various consultants who offered expertise in real estate, tax, remediation costs, construction costs, operational costs, labor force, legal, and other issues. Although SBC had no previous experience in brownfield development, most of the properties under consideration were contaminated to one degree or another because it had been very difficult to find suitable greenfield sites within the desirable geographic radius. The analysis concluded that Stamford was the preferred location for five main reasons: the large size and configuration of the site; its excellent location in a major downtown core with proximity to multi-mode transportation center; the ability to achieve full occupancy of Phase 1 by year-end 1997; the willingness of the state to eventually issue a “Covenant Not to Sue,” and perhaps most importantly, the generous corporate tax incentives offered by the state.

The Site

Current and past land use on the 32 parcels of land which make up the SBC site include service stations, photo processing stores, car rental agencies, parking lots, office space and other uses. The city of Stamford had already done a Phase I and II environmental assessment on the 12 acre parcel before SBC arrived on the scene. The phase I analysis consisted of an historical survey outlining the various past uses of each property. The phase II analysis consisted of a dozen borings and was done as an

inexpensive first look at whether contamination actually existed. Then, at SBC's request, a detailed Phase III analysis was done in early 1995 by Metcalf and Eddy Inc., one of the four firms approved by the Department of Environmental Protection (DEP) to do the work. This investigation included geo-probes looking for underground tanks, groundwater wells, approximately 120 soil borings, magnamometer studies, etc. A number of areas of contaminated soil and groundwater were detected during this investigation. The contaminants detected on the site were primarily petroleum-related compounds, plus isolated pockets of heavy metals (primarily lead).

Under the regulations set out by the DEP, the site had previously been given a GB groundwater classification, indicating that groundwater is not used, nor needed, for drinking water purposes. In the GB aquifer, remediation is not required below the water table unless the new structure is built below that level. The need for groundwater remediation in this area is governed by the following:

Surface Water Criteria – If groundwater contamination discharges to a surface water and interferes with the attainment of surface water quality standards, then groundwater remediation would be required.

Volatilization Criteria.—The proposed clean-up regulations include volatilization criteria for contaminated groundwater within 15 feet of the ground surface or a building. The intent of these criteria is to prevent human exposure to vapors from contaminated groundwater.

Non-aqueous Phase Contaminants (free product) – If free product is found in the groundwater, it must be remediated to the extent practicable.

Benzene, toluene, and xylene were detected above the volatilization criteria during the remedial investigation and benzene exceeded this criteria over the widest area. Metcalf and Eddy conducted surveys to determine the elevations of the water table. This elevation was compared with the planned elevations for the new structure to establish where groundwater remediation might be necessary. In the area of the Phase 1 office tower, the groundwater was measured at a geodectic elevation of between 7 and 8 feet. The base floor elevation in the office tower was found to be at 24 feet. Therefore, the volatilization criteria were not applicable to the office tower area because the base of the building was approximately 16 feet above the water table. However, in the Phase 1 parking/trading area, the groundwater was at an approximate geodectic elevation of 8 to 12 feet and the proposed basement floor of the parking garage was at an elevation of 3.5 feet. The volatilization criteria were therefore applicable to this area so groundwater remediation was required.

Based on groundwater sample results and the distance to the closest surface water, off-site migration of groundwater, which could impact surface waters, does not appear to have occurred. Therefore, no groundwater remediation was necessary to protect surface water.

Estimated Cost of Remediation

In 1995 Metcalf and Eddy did a feasibility study that recommended excavation and off-site disposal as the most effective means of soil remediation since contamination would be removed and the remedy would be permanent. “Excavation and off-site

disposal is particularly suitable for small volumes of contamination where the mobilization and/or long-term operating requirements of other alternatives are not practical. Also, excavation and disposal is expedient and no permitting delays are generally encountered.”¹⁷

They also conducted estimates on a parcel-by-parcel basis. A summary of this estimate is shown in exhibit #3. A 20% contingency was carried for each parcel to account for uncertainty in subsurface contamination volume estimates and for potential unknown conditions. The exception to the 20% contingency is parcel G31, where the scope of the investigation was curtailed due to limited access. A 50% contingency was, therefore, carried to account for the greater level of uncertainty. The total estimated cost of remediation as of February 1995 was \$4,792,300. This included soil remediation, incremental construction costs, dewatering treatment costs, groundwater monitoring costs, and RI/FS (remedial investigation/feasibility study) costs.

The Memorandum of Understanding

Ultimately what convinced the Swiss Bank to accept Stamford as the best site alternative was an agreement negotiated between the Bank, the State of Connecticut, and the City of Stamford. A detailed Memorandum of Understanding (MOU) was signed on September 21st, 1994 which held each party to various commitments. Without this successfully negotiated MOU, the deal would almost certainly have been lost.

For their part, the Bank promised to complete phase 1 construction no later than December 31st, 1997. This included a state-of-the-art trading floor and adjoining 14 story office tower totaling approximately 600,000 square feet of trading floor/office and

¹⁷ Site Remediation Feasibility Study, Metcalf and Eddy Inc., February 1995

500,000 square feet of structured parking. This development, with its significant allocations to green space, would not only beautify the area dramatically, but would also act as a “gateway” to downtown Stamford from the south by car, bus, and rail. This “gateway” would include a safe, comfortable, attractive, and activated street-level pedestrian connection between the Stamford Transportation Center (STC) and the rest of Central Business District (CBD). A major consideration in the design of SBC’s site plan has been to provide routes of pedestrian circulation which strengthen the link between the CBD and the STC through active, landscaped areas on the Swiss Bank site. SBC also guaranteed approximately 350 new jobs during the two year construction period, at least 2,000 permanent jobs with the completion of phase 1, and a total of 3,000 permanent jobs by the year 2008. In addition to these job creation guarantees, SBC promised to hire as much local labor as possible and agreed to an ambitious “Workforce Development Program.” This program involved creating a joint task force with the State and the City to identify the Bank’s entry-level and continuing education needs and then developing the curricula and programs necessary to meet those needs. Then, rather than developing their own internal training programs, the Bank promised to leverage existing training and educational resources as much as possible. These resources included the new downtown Stamford campus of UConn, Norwalk Community Technical College, and the Stamford Public Schools. The last major incentive the SBC development offered to its hosts was a dramatic increase in cash flow to the public coffers. According to the Stamford Tax Assessor, properties in the project site were currently generating \$435,000 per year in property taxes. Phase 1 of the Swiss Bank project would increase that tax yield to over

\$1.5 million per year and the complete project would increase it to over \$3.5 million annually.

In return for these promises from SBC, the state agreed to provide a 10 year 50% credit against SBC's Connecticut corporate income tax, provided that they completed phase 1 by the agreed date and that they maintained a total employment level in Connecticut of 2,000 employees. In the event that SBC employment in Connecticut reaches 3,000 employees by the tenth year, the State promised to provide an additional 5 year, 25% credit against Connecticut corporate income tax. The State also agreed to provide partial funding, under certain circumstances¹⁸, to complete environmental remediation of the site.

The City agreed to transfer the former Municipal Office Building, the former Rice School, Beehler Street, Guernsey Street, and a portion of Federal Street to SBC for the price of \$1. These parcels had an estimated value of \$5 million. A series of potential million dollar penalties were also negotiated to encourage the timely completion of all phases of the project since the City would sustain losses if portions of the project were eliminated or came on line later than promised.

Arguably, the most critical condition to the success of the SBC development was the designation of the "Gateway" district as a "Redevelopment Area." Once the area was so designated, and therefore officially condemned, the Stamford Urban Redevelopment Commission (URC) acquired all non city-owned properties in the project area using funds provided by Swiss Bank Corporation. This was accomplished using its power of eminent domain. The URC could not legally use this power unless the area was designated a "Redevelopment Area" so the official designation was a crucial turning

point in the process. Without the power of eminent domain, land assemblage can be extremely expensive and difficult. Existing owners typically learn of the assemblage before it is complete and begin to demand exorbitant, and sometimes prohibitive, prices for their land. To avoid this, the URC, as part of the overall Memorandum of Understanding, agreed to assemble the entire 12 acre site, including all privately owned parcels, as shown on the “existing conditions map” of Exhibit #2. In addition, the URC also agreed to provide relocation assistance to all commercial and residential tenants in finding new accommodations in accordance with statutory requirements, with funds supplied by SBC.

Land Title Transfer

Environmental clean-up of the site was scheduled to commence immediately following completion of the land assemblage process, a process which effectively transferred control of the entire 12 acre property to the URC. It was an important requirement of SBC that the title of the property be held by the URC until: 1) remediation was complete, and 2) the “Covenant Not To Sue” was issued by the DEP. Although the Bank was accepting financial risk, controlled by environmental offsets to property cost, it did not want to assume any environmental *liability* so it was imperative to stay out of the chain of ownership until the last minute¹⁹. It should be noted, however, that SBC was already financially committed to the project once the land assemblage process began so their ability to walk away was limited.

¹⁸ Please see following section, “Risk Sharing/Cost Sharing with the Public Sector” for further explanation.

¹⁹ Environmental offsets of property cost is explained more thoroughly in the next section.

A problem soon arose from this plan. SBC was unable to get a building permit for the phase 1 building until they held title to the land and they didn't want the title until their liability was nullified. This necessity to avoid liability, combined with the very tight construction schedule, compelled the SBC to subdivide the newly assembled 12 acre site into 5 separate legal properties: lots A, B, C, D, and E. (Please see site plan – exhibit #4) Relocation of existing tenants, remediation, implementation of the Covenant Not To Sue, and the land title transfer could all be done more quickly for site A, the phase 1 lot, than it could be done for the project in its entirety. Thus, by subdividing the site they were able to fast-track phase 1 and still make their deadline to complete by December 1997. Clean-up of the phase 1 site was complete by the beginning of March 1996, the Covenant Not To Sue was issued March 14th, 1996, and the title to Lot A was transferred from the URC to SBC at the end of that month. The same process was followed for the other four parcels and title to the entire 12 acres was transferred to SBC in June 1997.

Remediation Cost Sharing/Risk Sharing

With: Previous owners

Since the entire 12 acre parcel was condemned and all the private sites were taken through the URC's power of eminent domain, SBC's risk of unknown remediation costs was practically eliminated. Instead of offering the owners fair market value minus the *estimated* value of remediation, remediation was done first and the *actual* cost was deducted from the price. Thus, the owners were first relocated, remediation was completed, and then the owners were paid. This would not have been possible without the power of the URC.

The SBC hired the New York office of Hines Interests, a world renowned real estate development company, to work on their behalf throughout the entire development process. One of the many areas where Hines added significant value was in the land assemblage and relocation process. Each property was appraised to establish the “Unimpaired Value” using both the sales comparison method and the income approaches to value. A risk/stigma adjustment was then used to establish actual estimated value. The owners were informed that their property was either contaminated or was at the very least stigmatized due to neighboring contaminants. The risk/stigma adjustment discounts the property’s market value due to:

- the property’s general lack of ability to obtain financing due to contamination
- the fear of hidden clean-up costs or additional time required to clean-up the site
- the relative availability of similar property substitutes, which are not contaminated

Each offer was therefore adjusted downward by 10% due to the risk/stigma associated with the site. Properties that were actually contaminated were valued in the same fashion with the actual cost of clean-up added to the total deduction.

With: The Public Sector

The risk of remediation costs was also shared between SBC, the City of Stamford, and the State of Connecticut. Set out in the Memorandum of Understanding, in cases where a property had a negative or zero market value, SBC and the State were to split the excess cost of environmental clean-up, over market value, on a 50/50 basis, up to a maximum of \$3 million each for the entire project. Since the city had limited funds, the

state stepped in and made this offer, motivated by the promise of significant increases to the state income tax coffers. Although no single property ended up with a zero or negative value, this clause gave SBC a back door in case expenses got out of hand. One may argue that this was false security since the bank was already heavily committed to the project by this time but it was none-the-less included as a provision.

This cost sharing arrangement between SBC and the State was limited to environmental contamination originating on non-City owned parcels within the project area, but included the cost of the clean-up of contamination which migrated onto City-owned parcels from other parcels within the project area. The State was also responsible for 100% of the cost of clean-up of contamination which has migrated onto City-owned parcels from parcels outside the project area. The City, on the other hand, was responsible for the cost of clean-up of contamination which had migrated from city-owned parcels to other parcels within the project area. It was assumed by all participants that the sources of contamination could be easily identified. Luckily, not a single contamination migration issue was raised throughout the entire remediation process so this theory went untested.

With: The Remediation Contractor

The clean-up itself was overseen by Turner Construction, as construction manager, and subcontracted out to Earth Technology Inc. The issue of sharing the risk of unforeseen contaminants arose in contract negotiations between SBC, Hines, Turner, and Earth Technology but it was ultimately seen as too costly an alternative. Unforeseen costs must be anticipated by the contractors whether there is a high possibility of such an

occurrence or not and the higher the uncertainty, the higher the contractor's contingency price. If SBC had insisted on a strict lump sum contract the remediation bids would have been raised accordingly. Since SBC had just completed a very extensive investigation process, they were relatively confident that sharing this risk was an unnecessary cost. Therefore, a contract was drawn up between Earth Technology Inc. and Turner Construction for \$541,500. This price included "all site remediation (including transportation and disposal) work in accordance with the contract documents." In accordance with a normal construction contract, it was agreed that the contract documents were not complete but that the subcontractor was responsible to provide a complete job "consistent with the design intent." Along with this lump sum portion of the contract, unit prices were agreed upon for all anticipated and unanticipated "extra" work required to complete the clean-up to the required standards. The risk of unforeseen contamination was therefore set squarely on the shoulders of the SBC. For instance, line 7 & 9 on page 31 of the contract reads:

Line 7: "This contract includes all site remediation as follows: All labor equipment, materials, and other costs to locate, remove and dispose of 29 underground storage tanks (including cleaning and rinsate of these tanks), oil/water separators, hydraulic lifts, and floor drain systems as required and identified by the contract documents. Note: No cost is included in the base bid for removal and disposal of residuals from the items included above. Removal and disposal of these residuals will be handled via the unit prices listed below."

Line 9: "This Subcontractor includes transportation and disposal of contaminated material per the unit price schedule attached. This contract includes a base amount of 6000 tons of transportation and removal at \$48.00 per ton including all associated costs by contract."

An additional \$475,000 was eventually spent on items that did not fall within the context of the lump sum contract. Thus, the overall remediation bill to the SBC was \$1,016,500.

The risk of liability associated with accidents or negligence by the subcontractor was also addressed in the contract. It was specifically written that the subcontractor was responsible to provide minimum insurance limits of \$10 million for general liability, \$2 million for auto, and \$5 million per loss for “pollution liability insurance.” Turner Construction and SBC were to be included in each policy as the additionally insured.

Lease-up/Market Risk

SBC is the primary tenant and is expected to occupy up to 99% of the available rentable space. Lease-up/market risk, at least for the foreseeable future, is therefore very limited in this deal. However, there are still valid concerns regarding the health of the employees. Sick building syndrome, for instance, is always a possibility, albeit a remote one. The SBC, none-the-less, will be taking the risk of this potential occurrence.

Third Party Liability and Future Remediation Risk

There will always be the on-going risk of third party liability and future remediation but this risk is eliminated through the use of insurance. Leaving little to chance, SBC will purchase annual insurance policies for both risks.

Conclusions

This project was successful mainly because the public and private sectors found a way to work together. Mutually beneficial agreements were negotiated that properly

addressed each parties' concerns. SBC got a state-of-the-art facility built on time and in an ideal location; close to the highway, the railway, and the Stamford CBD. The city handed them five million dollars worth of land for \$1, the state agreed to a 50% cut in their corporate income tax for the next ten years, and another 25% cut is possible for the five years following. This was all achieved without SBC accepting *any* environmental *liability*. The risk of unanticipated remediation costs was always present but since the city allowed them to delay the transfer of title until it was safe (i.e. the site had been remediated and the CNTS had been issued) liability was avoided.

The City of Stamford also made out well. In exchange for assuming environmental liability through its URC and accepting some of the remediation costs, a 12 acre parcel of contaminated industrial land has been remediated and dramatically beautified. An aesthetically pleasing transition has been created between Stamford's CBD and its main transportation hub. Hundreds of temporary and permanent jobs were created while many local businesses and educational resources will enjoy a permanent increase in demand. In addition, once the project is complete, property taxes will have increased in perpetuity from \$435,000 per year to \$3.5 million per year.

The State of Connecticut, in exchange for its generous corporate tax abatement incentives and the offer to share certain remediation costs, were able to attract a major employer from another state, increasing its income tax revenue significantly.

Even the original property owners did well and the fact that none of them have sued the city for an illegal taking is testament to that fact. They were fairly compensated for their property, they were relocated at SBC's expense, and they were given the opportunity to completely shed environmental liability.

Chapter Four

Case Study #2

10 Trafalger Junction Road, MA

This case has been prepared in accordance with a confidentiality agreement. Numbers and dates are accurate as is the *description* of events and parties. However, names and locations have been changed to comply with this agreement.

Introduction

In the summer of 1994 a group of experienced investors pooled some funds together and formed a company for the sole purpose of acquiring a contaminated property at 10 Trafalger Junction Road in Massachusetts. Their goal was to rehabilitate the property so that it could once again be marketed and sold as a light manufacturing facility. A complex and precisely timed series of events was required to overcome the significant financial and legal obstacles associated with the site. These events included: purchasing the first mortgage position from the bank, conducting detailed on-site contamination investigations, buying the shares of the original debtor corporation, taking that company through voluntary chapter 11 bankruptcy, battling with the town for tax abatement, and finally, obtaining Federal and State sign-off documents. The property had been abandoned for almost ten years and it seemed economically unfeasible to all who had bothered to look at it. Thus, this is a case in which the investor's specific expertise in the brownfield redevelopment process has added significant value by dramatically reducing the risks.

The Site

This brownfield site is an eleven acre parcel of cleared land, bounded on the North by Trafalger Junction Road, on the southeast by Proctor Way, on the west by a slightly elevated wooded area, and on the northwest by a construction company. A wetland and a pond lie adjacent to the southwestern property boundary. This section of town is zoned industrial and industrial/commercial properties surround the property. The nearest residential property is approximately 1,200 feet east of Trafalger Junction Road. The site is in an area defined as “Not a Potentially Productive Aquifer” due to the 100+ acre industrial development surrounding the property. The nearest public water supply is greater than two miles southeast of the property and there are no documented wells within 500 feet. (See site map – exhibit #5).

A large brick and cinder block building covering an estimated 2.5 acre area has been abandoned on the site. This building was designed to accommodate both office and manufacturing related activities. The east end, second floor of the building was utilized for clerical and management staff and the rest of the building was devoted to manufacturing activities.

Site History

10 Trafalger Junction Road was undeveloped land until it was purchased in 1972 and leased to General Items Corporation (GI). GI built and operated out of a 2.5 acre facility for over 10 years, manufacturing “foam” (flexible urethane) filled automobile seats. This activity ceased with GI’s bankruptcy in 1984. On that date management secured the facility for an annual two week shut down and the doors were never opened

again. No special provisions were made to secure and maintain production materials and equipment for a prolonged shut down and the facility was closed with storage tanks, piping, and assorted containers holding process chemicals. An assortment of chemicals in various containers were left in the second floor laboratory, process equipment was left in the seating fabricating section of the facility, and approximately 300 fifty gallon drums were left in an outdoor storage area to the rear of the building. A site inspection was conducted in 1979 by the Department of Environmental Quality and, in addition to the above mentioned contamination, they noted:

- 1) eleven drums – 2 or 3 standing upright, 2 or 3 lying on their side with the contents having run out down a bank and into a small pond located immediately adjacent to the wetlands, and 6 drums partially buried.
- 2) Multicolored surface soil staining indicating that dumping of unidentified waste materials had previously occurred.
- 3) A viscous green fluid flowing into the pond.
- 4) Various types of polyurethane foams were observed on the gravel banking and along the perimeter of the pond.

In addition, two 4,000 gallon underground storage tanks, one with gasoline and one with diesel fuel, were discovered approximately 200 feet east of the drum storage area. Soil and groundwater samples collected from the area confirmed petroleum hydrocarbon contamination. A third 10,000 gallon underground storage tank containing heating fuel for the facility was known to exist approximately 125 feet due east of the other two tanks.

It is believed that from 1979 – 1984, GI had been in the practice of improperly storing unsecured drums, dumping various materials, and rinsing contaminated drums in the vicinity of the storage area. Groundwater, surface water, soil and sediment sample collections near this area and around the wetland revealed the presence of chemical contamination.

Enforcement activities were initiated in 1985 against the owner and the former tenant, both considered potentially responsible parties. During 1985 – 86 a response was received by the DEP from the owner acknowledging partial responsibility for the contamination. Throughout this period plant equipment was dismantled and most of the chemical source material was removed and disposed of by licensed waste disposal contractors. A phase II Environmental Assessment Report was completed by Clean Harbors Inc. and issued in October, 1987. Results indicated that contamination was now restricted to only two general vicinities: the area of suspected lab sink discharge (MW-3) and the drum rinsing area (MW –13). (See bore hole locations map – exhibit #6) In June 1988, a Notice of Intent was filed by Clean Harbors Inc. for installation of a groundwater treatment system but there is no further information in the files regarding the outcome of this effort.

In August 1994, a letter was sent to the Town Manager by XXX 10 Ltd., informing the Town that they were a group of investors that had just acquired the first mortgage on 10 Trafalger Junction Road.

XXX 10 Ltd.

XXX 10 Ltd. was formed in mid-1994 as a limited partnership by a group of experienced investors for the sole purpose of purchasing 10 Trafalger Junction Road in Massachusetts. The company was formed with a general partner and five limited partners specifically for liability reasons. A principal advantage to the limited partnership form is the limited liability shield provided to limited partners. Passive limited partners (i.e. partners not involved in the management of the company) are given substantial protection from liability. The general partner, on the other hand, has significant exposure to liability. Therefore, XXX 10 Inc. was also formed to act as the general partner for the partnership and Peter Ingram, the lead investor, was appointed President. Using a sufficiently capitalized corporation to act as the general partner limits the personal liability of any individual to their investment in the partnership. This was a way, albeit a complicated way, to ensure liability protection for all the investors in the enterprise. If the company were to be formed today, the investors would have taken advantage of the new Limited Liability Company format which offers limited liability protection to all partners. Unfortunately the LLC was not available in 1994.

The goal of XXX 10 was not to redevelop the property. They considered themselves to be rehabilitation experts as opposed to true developers. They simply wanted to get the building and the site cleaned up so that it was again capable of operating as a warehouse and manufacturing facility. This would hopefully be accomplished in relatively short order at which time they would sell it to a tenant or a developer interested in possible redevelopment. There was a general consensus among

the investors that time would be better spent remediating the next contaminated site rather than acting as property managers.

XXX 10 chose this particular property because of its excellent location.

According to Peter Ingram, the intrinsic value of the real estate is always the most important criteria. Once a property with intrinsic value has been identified, the redevelopment costs and profit margin are estimated. If a large enough comfort zone still exists, they do the deal. This property was a very desirable 11 acre piece of land in a well-kept, established industrial park. It had the potential to be subdivided and the building could easily be expanded. The property also abuts a well known, fortune 100 company among other high profile tenants and, finally, there is a possibility that another exit ramp will soon be built near the site, dramatically improving access to and from a major highway. It was a site that could justify the expenditure of up to \$1 million of acquisition and remediation costs while still providing a healthy return.

The Process

The first move that was made, once XXX 10 was created and incorporated, was to purchase the mortgage from the bank and thus become the secured creditor of the property. The bank had a \$2 million, non-recourse, first mortgage on the property but the loan had been non-performing for years. Much to the lender's chagrin, collecting on the debt was impossible since foreclosure would have exposed them to the environmental risks associated with the property. Once a lender forecloses on a property, they are immediately considered to be in direct control of that property and therefore defined as an "owner" or "operator". The operative language used to assign responsibility, under both

federal law and 21E of the State code, is “owner, operator, or lessee.” In other words, if an entity is recognized by the State as an owner, operator, or lessee, it runs the risk of being held responsible for clean-up costs. Although a lender may be reluctant to foreclose and take direct control of a property for fear of liability, the “Safe Harbor” provisions under Massachusetts State law does allow the mortgage-holder to conduct tests on the property and otherwise protect the asset. It is this provision that the investors planned to utilize. Ingram offered the bank \$100,000 for the \$2 million mortgage and the offer was accepted. This gave XXX 10 the ability to enter the property and test with impunity.

The next step was to try and establish the approximate scope of the contamination. The existing owner had made several efforts at cleanup over the years and this, combined with the expected natural attenuation of the pollutants over the last decade, suggested that the site may actually be in reasonable condition. XXX 10 hired an investigation team to conduct perimeter testing, boring holes every few feet, to first see if there was any contamination at the perimeter of the site. The tests strongly suggested that contamination was under legal requirements along the entire perimeter. If contaminants were not detected at the perimeter then migration to other sites was highly unlikely and exposure to third party claims from abutters was minimized. This gave Ingram the confidence to assume the contamination problems were within reasonable limits although soil and ground water contamination issues still had to be addressed. The initial phase II investigation suggested that contamination was limited so a thumbnail budget of \$500,000 was drawn up. This was thought to be a reasonable worst case scenario and it was agreed that the property had enough intrinsic value to justify that cost if it arose.

The next hurdle was the back-tax issue. There was a \$1.8 million back-tax bill that was based on a property value assessment of \$2 million. The city had never changed their valuation even though the site was contaminated and the building had been vacant and abandoned for years. According to John Arata, an environmental lawyer in Washington D.C., this is a common dilemma. No town tax assessor is going to voluntarily reduce the value of a property. The town typically ignores the issue and lets the back taxes accrue when it should actually be discounting drastically to attract outside investors. Also, when a town lets a tax go into arrearage, it loses the ability to renegotiate the bill with new owners. It can never reduce that tax voluntarily because it is prevented from doing so by State law. Therefore, it would have been impossible for new investors to acquire the property without paying the back-tax bill. Another way had to be found.

Ingram therefore decided to buy the company that owned the property. They had looked at the debtor corporation long ago and recognized that it was a family-run, single asset entity. In the Spring of 1995 Ingram made an offer of \$5,000 for all the shares of the company and the owner accepted the offer immediately. The building had been empty for the last few years anyway and by selling, the owner was shedding himself of all future liability. He was, therefore, more than happy to accept five thousand dollars to have someone take his “headache” away. By buying the shares of the corporation, Ingram was doing exactly the opposite of what is typically suggested. Instead of buying only the asset and attempting to hang all potential liabilities on the seller, XXX 10 bought the company itself along with all its problems.

This is the point at which the investors knowingly abandoned their “Safe Harbor” rights and stepped into the line of fire, assuming full responsibility and liability for the

property. However, the risk was thought to be minimal for two reasons. First, without third party liability risk, the clean-up costs were already proven to be finite, and second, XXX 10 was set up in a way that insulated the individual investors from financial harm. The most they could lose was their investment in the project.

The major advantage of this strategy was that it enabled the investors to “stand in the shoes,” of the original owner and it allowed them to take the debtor corporation into voluntary chapter 11 bankruptcy. This was the way in which they planned to “cram-down” the \$1.8 million tax bill. Although the town could not voluntarily revalue the property and reduce the accrued tax, a bankruptcy court could force a “compromised judgment”. The town would then be forced to come to court, as any other creditor, and prove it was entitled to the full amount outstanding.

A second advantage to the bankruptcy strategy was that it forced all potential claimants to come forward immediately to state their case. The Town, the Department of Environmental Protection (DEP) and all property owners within a one mile radius were named and served as “contingent” creditors in consideration of “potential environmental claim.” This put the onus on everyone else to come forward and prove a legitimate property damage claim or cleanup claim existed. Luckily only one property owner came forward and they ultimately were unable to prove damages. This effectively barred all the parties that had been previously served from making future claims regarding existing circumstances.

When the town was informed of the investor’s plans, its initial response was adversarial. It demanded the full amount in arrears and indicated it was willing to go to bankruptcy court to get it. Ingram’s reaction to this was in the form of an ultimatum.

Since there was no guarantee of winning the tax battle with the town, he was not willing to spend thousands on legal fees so he threatened to walk away. He pointed out that the back-taxes should be considered a “sunk cost/loss” and reminded the town that XXX 10 was a new group of investors offering to get the property back on the tax payroll going forward. In return, the town would have to compromise on the tax issue. After 1 ½ years of negotiation the town not only accepted \$300,000 payable over 5 years, but also agreed to a slow ramping up of the current taxes over the next five years so that full property taxes did not kick in until the 6th year.

This changed the value of the property significantly. At this point XXX 10 had \$100,000 invested in the site, \$100,000 invested in legal fees, and \$300,000 invested in back-taxes spread over 5 years. With \$500,000 invested and reduced current taxes going forward for five years, the property was becoming far more marketable.

While the back-tax fight was taking place with the town, XXX 10 had also applied for a Covenant Not To Sue (CNTS) from the DEP. This is where the plan hit a glitch. Although Ingram had received verbal approval for their overall redevelopment strategy from Attorney Bob Brown of the DEP, Brown had since been replaced and the woman that had taken his place was now questioning their whole approach. In her opinion, XXX 10 had purchased the existing corporation and at that time had become the *current* owner of the property. This would disqualify them from the CNTS program since owners are considered responsible parties and responsible parties are not eligible for the covenant program. This issue was addressed by the attorney for XXX 10 in a letter to the DEP. dated September 18, 1996. In this letter he not only attempts to detail

the investor's development strategy, all of which had previously been accepted, but he also urges the DEP to reexamine the overall goals of the Covenant program.

“... At the time of application, various officials of the DEP were consulted verbally and were apprised of all the affiliations and circumstances surrounding the XXX 10 Application under the Covenant Not To Sue (CNTS) program. I pointed out with emphasis that no one affiliated with XXX 10 had any prior relationship with the site or the current site owner, with all of the investment dollars at the disposal of XXX 10 having come from new and independent sources...”

“I explained carefully to Attorney Brown that, solely in order to protect its interests as the holder of the First Mortgage on the property, XXX 10 had acquired the shares of the current owner for the purpose of filing a petition under Chapter 11 of the Bankruptcy Code, seeking a reorganization in order to contest the validity of the back real estate taxes... I expressly contended to Attorney Brown that none of these actions had the factual or legal effect of altering the “Status” of XXX 10 Inc. under the CNTS program as a “prospective” (and not a “current”) owner, operator, or lessee. Upon consideration of all these factors, Attorney Brown advised me verbally that he saw no eligibility problems with the XXX 10, Inc. application for the CNTS program...”

“We then needed to put the application on hold until we had a resolution of the back-taxes issue with the Town, since a failure to achieve a compromise

of the \$1.8 million claim would mean that XXX 10 would not pursue the project or the Covenant. He agreed...”

“In reliance upon the foregoing, my client has moved forward as a Secured Lender, at significant cost, in order to take all commercially reasonable steps to protect its security and prepare the property for sale. However, since the legal and technical problems at the property are complex, it has been, and still remains, the plan of XXX 10 to make the “transition” from Secured Lender to Covenant Holder, thus voluntarily giving up the “safe harbor” benefits of the Secured Lender in order to be able to deal with the problems more directly and aggressively...”

“But in my most recent informal discussions with you, Peg, I received the impression that you were inclined to re-open the eligibility question. Hopefully not. Not only would this be legally invalid under the circumstances, but it would be misguided and disheartening in the context of the letter and the spirit of the CNTS program, which is supposed to encourage rather than discourage entities like XXX 10, in order to attract fresh and “untainted” capital into Brownfields projects.”

According to this attorney, the true test of eligibility for the DEP should be to ask, “Is it new faces and new money?” If it is, then cooperation should be forthcoming.

Ultimately the letter became the basis of a DEP policy discussion. Fortunately for the investors of XXX 10, the same attorney that sent the letter was participating on an advisory committee to the DEP on updating Brownfields regulations. Since he was actively involved in private sector Brownfield redevelopment, he had many real-time

cases which became the basis for discussion at these meetings. He, in fact, had the opportunity to give a speech to the DEP on this exact topic.

“It’s absurd,” he argued, “to create a program that provides incentives for new money and new faces to come in and solve some of these problems if you’re going to tie both hands behind their back. Let these investors do what they have to do without playing “gotcha.” It’s the “gotcha” mentality that frightens all the new capital away.” Finally, after months of deliberations by the DEP, XXX 10 was granted the Covenant Not To Sue, protecting them from post-clean-up liability to the state.

While the DEP was deliberating on their course of action, Ingram had an environmental engineering firm back on site conducting tests. They were relatively confident that the site was only mildly contaminated so the main objective at this point was to avoid having any Activity in Use limitations (AUL) placed on the property. The new Risk Based Corrective Action (Rebecca) statute allows higher levels of contamination to be left behind on industrial/commercial properties as long as the health risks have been adequately assessed. Although this often saves a great deal in remediation costs, a strict limitation is attached to the title of the property which designates it as “not for residential use.” Although the property would never be used for residential purposes, this limitation carries with it a certain stigma which has the potential to reduce value. In an attempt to avoid these limitations, the investors conducted a full phase two comprehensive assessment and a full risk assessment. At first the lab used less sensitive standards of measurement and the results indicated that they were over the allowable contamination levels for a “clean site” designation. They would therefore need to accept an AUL. Since the tests showed them to be only slightly above the allowable

limits, Ingram asked that the tests be done again. This time more precise tests were conducted and the investment paid off. The second set of tests indicated that the property was just under the allowable levels and it would therefore qualify for a clean title. No significant remediation was ever required.

The last step in any brownfield redevelopment process in Massachusetts is to file a Response Action Outcome Statement (RAO). Once a site is listed as a contaminated site with the State of Massachusetts, they give you five years in which to come up with a “permanent result.” The way to get a permanent result, as a matter of statute and regulations, is by filing an RAO within which lies an explanation of what was done at the site and why the site is now in compliance. Once the RAO has been filed and accepted by the DEP, the file is considered closed. XXX 10 submitted an extremely detailed and well documented RAO for three main reasons: 1) They wanted it to be capable of withstanding an attack from any random State review, 2) The more detailed and complete the RAO, the more secure the insurance underwriters would feel and the lower the premiums might be, and 3) A potential purchaser’s bank would typically hire an engineer to look at the property and the documents before approving financing. A detailed and well documented RAO would assist an engineer in his evaluation, thereby fast-tracking that process.

Risks

There was exposure to many risks throughout the entire “rehabilitation” process, all of which were assumed by the investors of XXX 10. There was a progression of increasing exposure to contamination-related liability as the process evolved but each risk

was identified and quantified before it was taken on and an exit strategy was always at hand. Therefore, the risks were never at any given time, considered to be excessive.

The greatest risk was thought to be that of unknown remediation costs.

Chlorinated solvents were present on the site and if they had been found above certain levels, an operations and maintenance facility or a pump and treat facility may have been required for up to 10 years at the cost of \$25 - \$50,000 per year.. Although the technologies do not exist to properly separate and clean chlorinated solvents from water, the DEP can still insist on expensive attempts to treat it. The exit strategy at this point would have been to simply collapse the partnership. If they had discovered a \$2 million clean-up on the property they would have walked away and lost their capital investment. There were enough layers of protection to both the general partner and the limited partners that unlimited liability was not a concern. As it turned out, the contamination levels were within legal limits and very little was actually spent on remediation.

As was mentioned earlier, third party liability was also a primary consideration. In fact, this was the first potential risk that was addressed once the mortgage was purchased from the bank. Again, the only thing at risk was the \$100,000 used to purchase the mortgage plus a few thousand dollars for testing. The lender's "Safe Harbor" provision insulated the investors from any liability associated with the contamination and it was not until tests indicated the perimeter to be below legal limits that they moved from behind that protection

The back-taxes were also of primary concern. The success of the project obviously hinged on this issue. In order to deal with the back tax issue XXX 10 had to make the leap from secured lender to owner but these risks were quantified and

minimized before that move was made. This allowed Ingram to file for chapter 11 bankruptcy so the fight with the town could begin. If the town had not renegotiated the tax bill, the investors, again, would have simply abandoned the entire project. At risk was \$100,000 for the mortgage, \$5,000 for the debtor corporation, and a few thousand for testing and legal fees

Insurance is available to deal with the on-going risk of more stringent regulations and future third party liability claims. Once the RAO was complete, Ingram submitted it to their insurance underwriter. After studying the documents, the insurance company agreed to insure the property for both third party liability and future remediation costs for a reasonable price. For an annual \$1,200 premium, XXX 10 purchased \$1,000,000 of third party liability insurance. This gives a future buyer or tenant protection from being sued for damages caused by the *original* contamination and is therefore essential, especially to their lender. For approximately \$12,000 per year future remediation insurance from *known* contamination is also available. This protects the owners from the risk of more stringent future clean-up requirements. Since this is significantly more money, a business decision would have to be made as to whether the cost is justified. To date, Ingram has simply included “the indication of premium” in the broker’s brochure indicating that the insurance is available.

One final gamble that has been accepted by the investors is that of marketing a site with a history of contamination. One way to minimize this risk is to clean the property to the level required for a “clean title” It is thought to be more difficult to market a property with an AUL attached to the title. Unfortunately there is little else that can be done to combat this uncertainty. The severity of this risk will likely depend on the

state of the current economy. In other words, in a sluggish economy there would presumably be many more choices for prospective buyers and the “stigma discount” could be more severe.

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The EPA have been steadily archiving brownfield sites that are not on the National Priority List because they are not of sufficient national concern. 10 Trafalgar Junction Road became an archived site soon after XXX 10 purchased the mortgage so all regulations were delegated down to the State. The investors are now trying to get it formally signed off by the EPA so that it becomes strictly a State site.

Presently 10 Trafalgar Junction Road is being actively marketed for sale and inquiries have been made around the \$2 million range. With little more than \$500,000 invested, Peter Ingram and his fellow investors anticipate a significant return on their investment.

Conclusions

With an investment of only \$500,000 and a profit margin in the neighborhood of \$1.5 million, this project was an undisputed success. The primary reason for this success is Peter Ingram’s knowledge of the regulatory process. Ingram added significant value to this project by knowing exactly what had to be done and when. This is not to say that risks were not taken. Losing their investment capital was a possibility almost to the end.

When the mortgage on the property was purchased from the bank, \$100,000 was immediately at risk. The perimeter testing cost a few thousand dollars and the debtor

corporation was purchased for \$5,000 still with no assurances of any kind. In fact, once the original company had been purchased, XXX 10 was fully exposed to the risk of contamination-related liability, the risk of remediation cost overruns, and the risk that the city would not listen to reason regarding the back-taxes. When it came time to take the company into chapter 11 bankruptcy and Ingram threatened to walk away if the town refused to negotiate, approximately \$130,000 was “on the table” including legal fees – no trivial sum. It must be noted that at this point they also did not know the full extent of the site contamination. It was only after the city agreed to a tax abatement that more complete tests were conducted and the risk of remediation was eliminated.

An additional reason for the success of the project was that both the DEP and the town ultimately realized the “error of their ways” and gave in to Ingram’s demands. If the public sector wants contamination problems solved by new investment capital, the CNTS must be available and back-taxes must be flexible. Most brownfield redevelopment projects simply don’t make sense without these incentives.

At first glance, it may seem like XXX 10 had a “no-brainer” on their hands and that little risk was taken but that is not the case. Although specific knowledge of process reduced the uncertainties from what they might have been, significant risks were assumed by these investors throughout the project.

Chapter Five

Conclusions

Much has changed since the 1980's when the slightest hint of contamination on a property would send everyone diving for cover. Although many still avoid contaminated land, there are now savvy developers/investors who understand how to limit their exposure to the additional risks. This process-specific knowledge can serve to dramatically reduce the additional risks associated with brownfield redevelopment and, in so doing, create value where none had existed before. Despite this limited success, the goal for public policy should be to continually strive for a process that is less intimidating and more attractive to the private sector in order to increase the pace of clean-up across the country.

After reflecting on the two preceding cases, several project-specific lessons become immediately evident. It is more difficult, however, to come to any *general* conclusions while drawing from only two examples. Since this thesis is only one segment of a larger study, four additional cases are available for examination. Within the context of this larger picture, it becomes less difficult to draw conclusions on what the private sector requires before it will invest in contaminated real estate.

Fortunately the six case studies are very disparate so the conclusions can be considered relatively broad. They take place in five of the six New England States; the end-uses include industrial, office, recreation, retail, and residential; the goals of development range from owner-occupied to entrepreneurial "flipping"; and the redevelopment challenges are similarly varied.

Perhaps the most pervasive characteristic drawn from these cases is the unequivocal need for *quantifiable risks*. If the risks cannot be assessed and priced satisfactorily, investors will be hard to find. In a free market system, investors have no shortage of competing alternatives for their capital and they look at brownfield projects with the same critical eye used to analyze all other investment opportunities. The return must match the perceived risks. If the risks are unknown, an acceptable return cannot be calculated.

One of the most effective ways to eliminate some of these unknowns is through improved public policy. The various levels of government – Federal, State, and Local – must agree on a clear and defined set of rules to work by. To date, the three levels of government have not coordinated their efforts and they still must be dealt with as separate entities. The federal government shifts the burden of dealing with brownfields onto the states but retains a veto power over state policies in the form of CERCLA. In turn, the state government's DEP controls redevelopment in a strict manner while allowing the local authorities to set their own rules. Unfortunately, these different levels of regulations have often been unclear and have sometimes even been contradictory, frustrating legitimate attempts to work through the process.

Once the risks in any given project have been quantified, investors must then attempt to minimize them. One effective way to do this is to begin with the correct company form. Brownfield redevelopment involves much higher levels of liability risk than typical real estate development so forming an entity that limits this liability is extremely important. In each of the six cases studied, the buyer's company form was chosen with great care. There were three limited partnerships, two limited liability

companies, and one corporation. The common link is that all six entities provide *limited liability* to the individuals within.

A second practical method of minimizing risk is to choose a site with sufficient intrinsic value. In other words, the decision to buy should be based on real estate fundamentals as opposed to, say, the extent of the “contamination discount.” In all six case studies, the properties that were chosen for redevelopment were well located and had very high “clean” values. This not only raises an investor’s potential return, but it also provides them with a satisfactory buffer in case remediation costs rise above initial expectations.

Another important way of reducing uncertainty is to assemble a knowledgeable and experienced team. It was obvious in case two of this study that an individual with an intimate knowledge of the process can add significant value to a project by guiding it through the minefield of regulatory hurdles. The environmental engineering consultants are also very important. There is no substitute for experience when deriving clean-up goals and remediation alternatives. Where they really prove their worth, however, is in estimating remediation costs. Since accurate clean-up estimates are critical to a successful project, a knowledgeable and experienced firm is highly recommended. Along the same lines, an experienced, reputable, and insured remediation contractor is just as important. The contractor must be trusted to remove all necessary contaminants in a safe and legal fashion without creating additional problems. This is not an easy task and it should always be left to competent professionals. The last notable member of a winning team is the environmental attorney. It almost goes without saying that he/she

should be experienced and, preferably, successful at redeveloping environmentally contaminated real estate.

One of the riskiest junctures in the entire brownfield redevelopment process is the point at which the title is transferred from seller to buyer. The Purchase and Sale agreement is the primary mechanism used to accomplish this and its structure played a very significant role in five of the six cases studied. The Swiss Bank case, for instance, clearly illustrates to what lengths a buyer will go to avoid the risks associated with title transfer. The recommended approach to minimize these uncertainties vary with each project although it is always a good idea to identify the probable cost of cleanup claims as early in the transaction process as possible and then allocate that risk among the parties through the P & S. Great care and attention must be given to this issue.

Although little can be done to combat market risk, it should certainly be mentioned. Even after remediation, properties that have been contaminated may still bear a significant negative stigma. The *degree* of risk that this entails actually varies in each instance. An owner-occupied development, for instance, will have very little market risk relative to an entrepreneur who plans to “flip” the property. Residential projects are thought to be more difficult to market, having once been contaminated, than commercial or industrial projects. Similarly, Activity-Use-Limitations may affect the marketing efforts of a remediated property so taking advantage of the new “Risk-Based-Corrective-Action” legislation may not necessarily be the optimum alternative.

To assist in the sale or lease of a property, insurance can play a fairly significant role. Although insurance seemed to play a minor role throughout the redevelopment process in most of the cases studied, ongoing third party liability insurance and future

remediation insurance were apparently very helpful at the marketing stage. It is of particular importance to enable a prospective purchaser to “nail down” financing.

One last issue that was thought to be significant after reviewing each case was that of back taxes. Brownfield redevelopment, almost by definition, will involve back-taxes to some degree. Properties that have been polluted and then gained the attention of the EPA or the DEP, have often been abandoned or at least ignored for a significant amount of time. Taxes, therefore, accrue creating additional obstacles to reasonable solutions. It is understandable why tax breaks are not given to current owners but when new investors and new capital are willing to solve the problems of a contaminated site, a method of reducing the back-taxes must be established to make these projects financially viable.

There are certainly many techniques available to allocate and mitigate the risks associated with brownfield redevelopment. However, special attention should be paid to issues as diverse as the company form, the intrinsic real estate value, the redevelopment team, the P & S agreement, and insurance. Although working with contaminated property is still a risky business, progress has been made by both the private and the public sectors to improve the situation. To date, 40 states have begun to address these issues, reducing both risk and cost with the “No Further Action” letter and the new “Rebecca” legislation. In the private sector, the risks associated with the remediation process itself are becoming better understood and more easily quantified. The future success of brownfield redevelopment in general, however, depends upon the cooperation and mutual understanding of the public and private sectors themselves to continually strive towards more creative solutions to this complex issue.



Model Photo - Full Buildout
Swiss Bank Center

**TABLE 4-2. SWISS BANK CORPORATION - ESTIMATE OF
REMEDATION COSTS ALLOCATED BY SOURCE PARCEL**

Source Parcel	Soil Remediation Plan Costs (\$)					
	Soil Remediation	Incremental Construction Costs	Dewatering Treatment/Cost	GW Monitoring Costs	RI/FS Costs	TOTAL
G0; North State Street (DOT)	-	-	-	-	6,700	6,700
G1; 469-477 Atlantic Street (Stavros)	15,000	-	-	-	24,200	39,200
G2; 455 Atlantic Street (Champion)	-	-	-	-	8,000	8,000
G3 & G4; 443-449 Atlantic Street (Begatis)	42,400	-	-	-	10,600	53,000
G5; 439-441 Atlantic Street (Chavkin)	18,400	-	-	-	3,500	21,900
G6, G7 & G8; 429 Atlantic Street (Former MOB)	-	-	-	-	19,000	19,000
G9; 26 Federal Street (Enterprise)	289,400	175,000	67,000	25,000	61,200	617,600
G10 & G11; 33-37 Guernsey (Action Towing)	85,500	-	-	-	19,900	105,400
G12, G13 & G14; 25-31 Guernsey (F.D. Rich)	505,300	-	27,000	25,000	59,400	616,700
G15; 10 Guernsey (Avis South Parcel)	71,000	-	-	-	8,900	79,900
G20; 10 Guernsey (Avis North Parcel)	307,600	65,000	120,000	25,000	23,900	541,000
G16 & G17; 46-74 North State Street (Hertz)	146,700	-	27,000	25,000	17,900	216,600

Exhibit #3(a)

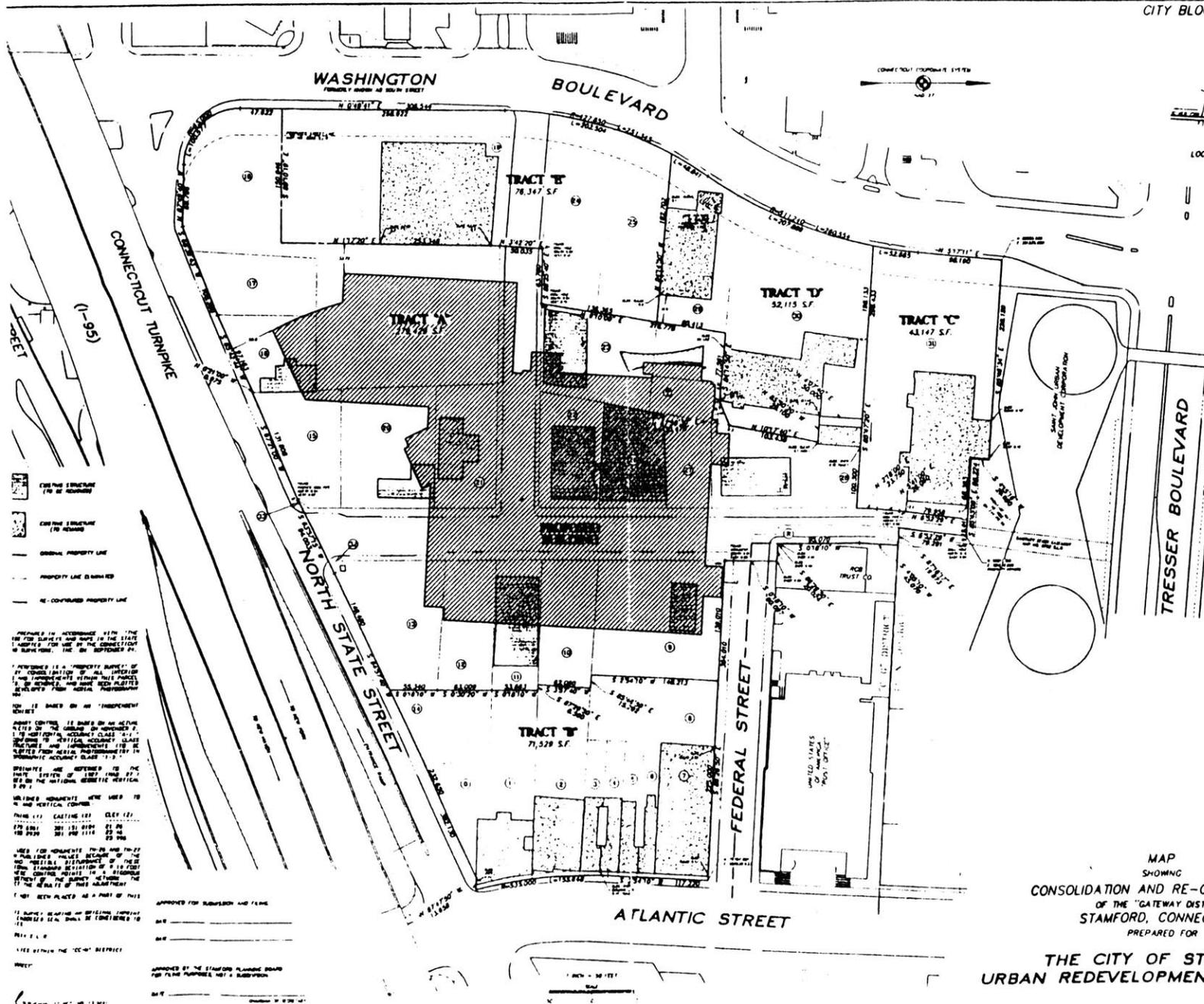
**TABLE 4-2. SWISS BANK CORPORATION - ESTIMATE OF
REMEDATION COSTS ALLOCATED BY SOURCE PARCEL**

Source Parcel	Soil Remediation Plan Costs (\$)					
	Soil Remediation	Incremental Construction Costs	Dewatering Treatment/Cost	GW Monitoring Costs	RI/FS Costs	TOTAL
G18; 584 & 589 Washington Blvd. (Rice School)	206,300(1)	-	-	-	95,600	301,900
G19; 655 Washington Blvd. (Wm. Pitt)	-	-	-	-	9,300	9,300
G21; 28 Guernsey (Budget)	297,700	180,000	27,000	25,000	29,700	566,400
G22 & G26; 38-40 Guernsey (New Salvation Army)	254,400	-	-	-	25,300	279,700
G23, G24 & G25; 683 & 695 Washington (Clearwater)	108,500	-	-	-	45,800	154,300
G27; 50 Guernsey (RCB Trust)	-	-	-	-	5,400	5,400
G28; 60 Guernsey (ADG Guernsey)	-	-	-	-	14,400	14,400
G29 & G30; 747 & 717 Washington (Saturn)	668,100	-	-	17,000	112,400	797,500
G31; 777 Washington (Color Film)	202,900	-	-	17,000	55,300	275,200
Beehler, Guernsey and Federal Street Beds	35,000(1)	-	-	-	33,700	68,700
TOTAL	3,254,200	420,000	268,000	160,000	690,100	4,792,300

Exhibit #3(b)

67

(1) Remediation cost for TCLP lead hazardous soil which does not exceed ConnDEP SPLP cleanup criteria.



- EXISTING STRUCTURE TO BE RETAINED
- EXISTING STRUCTURE TO BE REMOVED
- ORIGINAL PROPERTY LINE
- PROPERTY LINE TO BE SHOWN
- RE-COMPUTED PROPERTY LINE

PREPARED IN ACCORDANCE WITH THE...
 1. THIS MAP IS A PROPERTY MAP...
 2. THIS MAP IS BASED ON AN INDEPENDENT SURVEY...
 3. ALL DISTANCES ARE MEASURED...
 4. ALL ANGLES ARE MEASURED...
 5. ALL CURVES ARE MEASURED...
 6. ALL BEARS PLACED AS A PART OF THIS...
 7. THIS MAP IS SUBJECT TO THE...
 8. THIS MAP IS SUBJECT TO THE...
 9. THIS MAP IS SUBJECT TO THE...
 10. THIS MAP IS SUBJECT TO THE...

Exhibit #4

MAP
 SHOWING
 CONSOLIDATION AND RE-CR
 OF THE "GATEWAY DISTR
 STAMFORD, CONN
 PREPARED FOR
 THE CITY OF STA
 URBAN REDEVELOPMENT

Exhibit #5

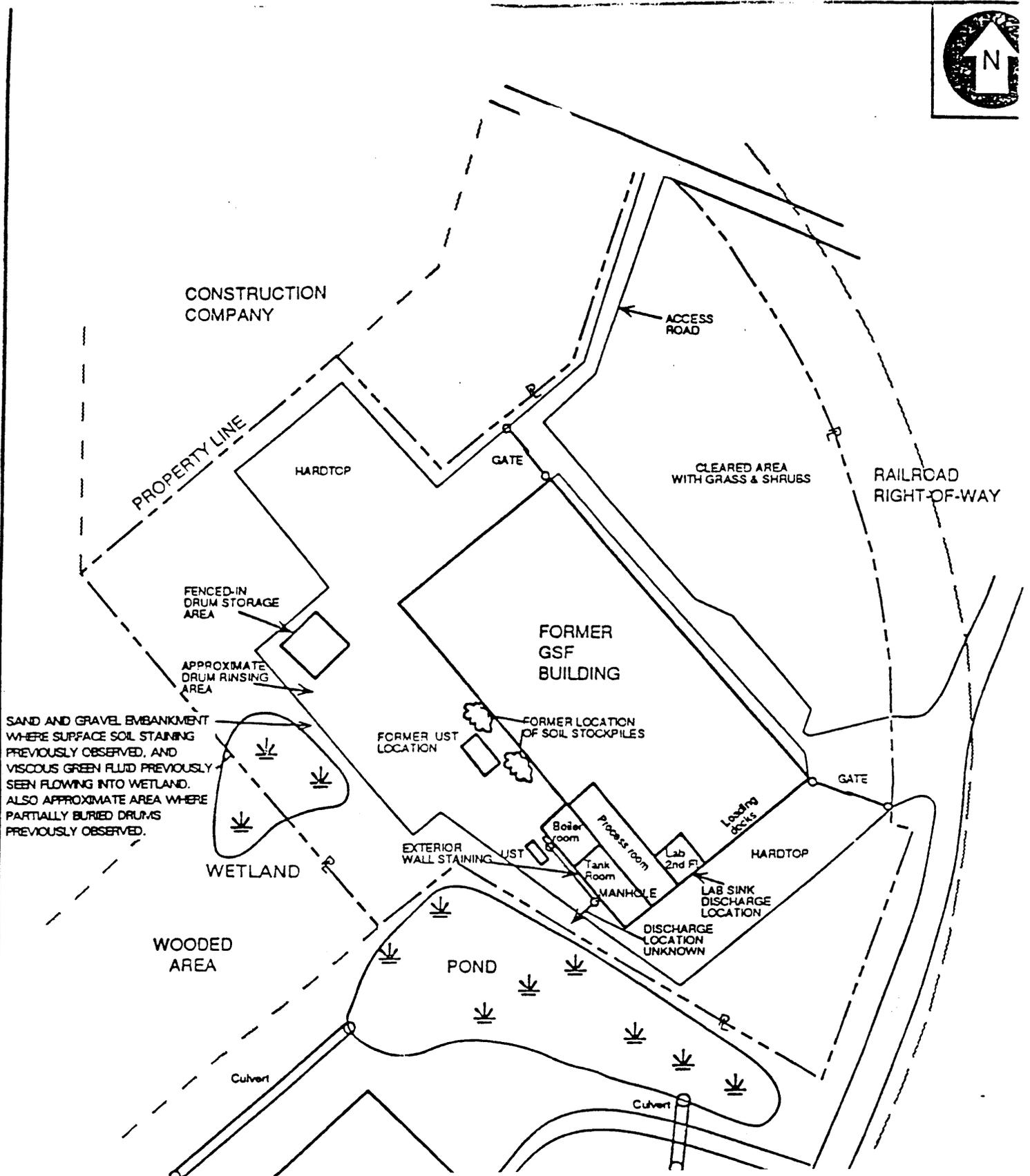
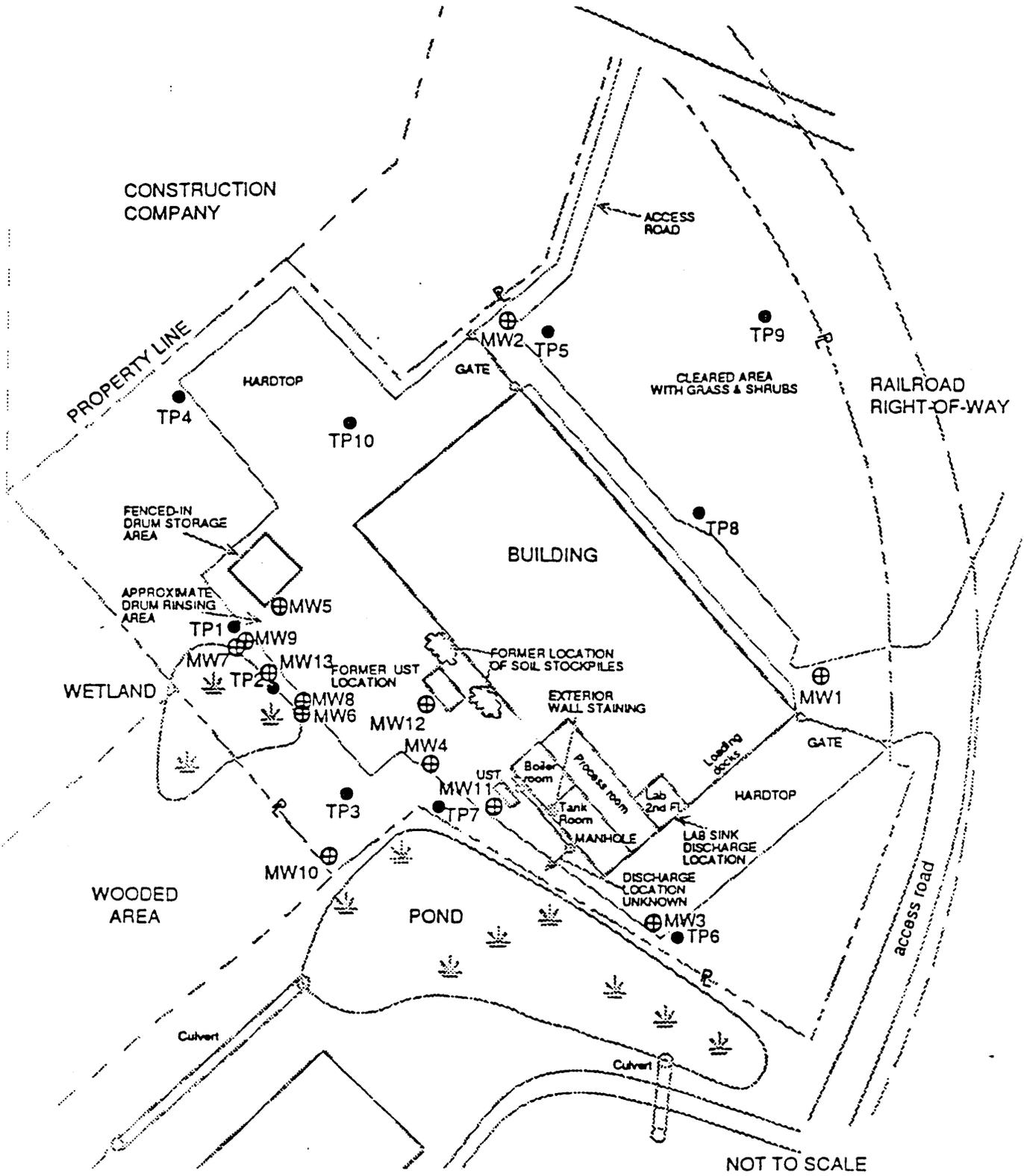


Exhibit #6



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