

Planning for Reuse and Redevelopment of Inner City Blighted Contaminated Industrial Sites

by

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

ABSTRACT

Inner city blighted industrial sites are primarily associated with the general phenomenon of deindustrialization within the post-industrial inner city that is caused by spatial and functional restructuring of the industrial activity. Blighted industrial sites are vacant, obsolete, or underutilized industrial buildings, facilities and other related industrial functions and areas. Such blighted areas may have physical, functional, social, economic, and environmental impact problems both within the site, as well as on surrounding properties. Brownfield sites represent a severe form of blighted sites which include real or perceived environmental contamination. Brownfield redevelopment requires environmental clean-up to acceptable regulatory standards which may result in a costly process.

The general research goal is to achieve an understanding of this complex problem context as well as to establish the pertinent planning framework for redevelopment of blighted industrial sites within the Canadian inner city. The research process includes three parts. Part One includes an extensive preliminary literature review of brownfield redevelopment case studies in Canada, United States, and the United Kingdom. It also includes an outline of general planning theory and related interdisciplinary theories. The preliminary findings of literature review reveal a multiple component interactive problem context that indicates a need for an integrative planning framework addressing multiple problem components. The preliminary research findings for the planning framework are further studied and examined in four empirical case studies included in Part Two. The specific research objectives and research questions address three constituent parts of the planning framework including the nature of the problem context, potential policy directions, and the planning process. The central research question is “what is the appropriate planning framework and approach for brownfield redevelopment given a multiple component interactive problem context?”

Part Three synthesizes the findings of Parts One and Two, which highlights the proposed planning framework for brownfield redevelopment, including an outline of major problems and policy directions based on impact evaluation by key participants in the empirical case studies, as well as outlining the main characteristics of the planning process. Some of the main problems and issues include site contamination and related legal liabilities, cost of site remediation that may exceed property value, stakeholders’ conflicting objectives, social stigma associated with brownfields, clarity and consistency of the environmental approval process as, community support. The proposed policy directions also represent multiple components and they are mainly as follows:

- To prepare an inventory of brownfield sites,
- To establish public-private partnership for project financing especially for site remediation,
- To develop self-financing mechanism (like TIF/TIEF) to finance cost of site remediation,
- To establish a redevelopment authority that is directly responsible for the process,
- To foster public-private-community collaboration and partnership,
- To secure accessibility of local residents to newly provided opportunities (like jobs),
- To adopt multiple-component integrative planning framework to link major problem components and planning sub-processes

The research findings also highlight the planning process being manifested at two main poles including the project developer and his consulting team, the public approval authority, in addition to community residents and interest groups that are involved in the public consultation process. The development approval process is the common organizational set-up and interface for stakeholders’ involvement in the process. The main characteristics of the proposed planning process include multiple-component multi-disciplinary context consisting of interactive planning sub-processes within each component, multi-level spatial contexts, involvement of multi-stakeholders with conflicting objectives and vision, incrementally adaptive, critical time and timing context, and mixed-rationality comprehensive planning vision. This research asserts the need for addressing the multiple components of environmental, physical, economic, social, and political planning without prior bias or predominance to any of these components. This also asserts the need for multi-stakeholder public-private-community collaboration and partnership.

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DEDICATION

In memory of my father and mother who laid the original foundation for my path, and for my wife Haifa, my life companion in every course of action I pursue including this thesis and PhD program.

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PART ONE: PRELIMINARY LITERATURE REVIEW AND GENERAL CASE STUDY ANALYSIS

Part One includes a preliminary literature review and general case study analysis of blighted/contaminated industrial sites (brownfields) reuse and redevelopment. The literature review includes applied reuse and redevelopment planning in addition to general planning theory and other related interdisciplinary theories. The main objective is to develop an understanding of the nature of the problem context, its complexity, connectivities among components, and how planning as a problem solving framework can be utilized in such a problem context. The theme is to match substantive issues with theory in order to identify commonalities and then to develop an understanding and planning framework to this problem. Also, Part One aims at setting the basis for empirical research. The preliminary outcomes of Part One include substantive and theoretical findings to be considered as proposed hypotheses that are further examined in an empirical setting in Part Two. Part One includes the following:

Chapter One: Introduction and Thesis Organization

Chapter Two: Problem Context and Planning Issues Associated with Blighted/Contaminated Industrial Sites (Brownfields)

Chapter Three: Contributions of Planning Theory and Related Interdisciplinary Theories

Chapter Four: Preliminary Research Findings/Hypotheses Research Objectives, and Research Questions

Chapter Five: Empirical Research Method and Process

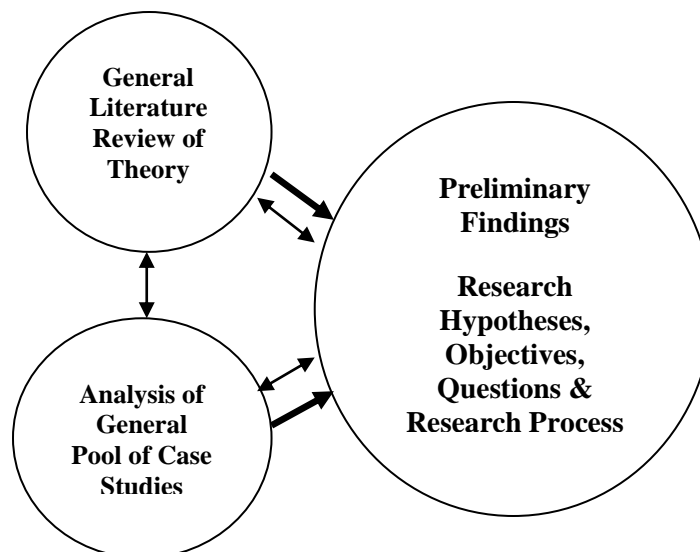


Exhibit 1.1: Preliminary Framework for the Research Process - Part One

CHAPTER ONE: INTRODUCTION AND THESIS ORGANIZATION

The problem of blighted industrial sites emerged within the inner city as a result of the phenomenon of deindustrialization within the post-industrial inner city (Bourne, 1982; Jakle & Wilson, 1992; Yeates, 1998; Ley & Frost, 2006; Adams et al, 2010). The spatial restructuring of industrial activity, especially the move of manufacturing functions to suburban and peripheral locations, resulted in the abandonment of obsolete industrial sites within the inner city (Stafford, 1982; Yeates, 1998; Fillion & bunting, 2006; Ley & Frost, 2006). The nature of some of the old industrial production processes caused critical environmental contamination that affected human and natural ecosystems resulting in what so called brownfield sites. Environmental contamination added to the complexity of the physical-functional and social problems of blighted industrial sites and consequently to their redevelopment (Bartsch & Collaton, 1997; Howland, 2002a; De Sousa, 2008). However, blighted/contaminated industrial sites (brownfields) within the inner city may also be seen as development opportunities rather than planning problems (Adams et al, 2010; NRTEE, 2003). Inner city brownfield sites are either vacant or are underutilized and their redevelopment can contribute to the reduction in pressure on Greenfield development and suburban sprawl in general (NRTEE, 2003).¹

This research is an attempt to study the dynamics of this complex problem and to provide a planning framework and vision for addressing this multiple component problem context. Even though this research focuses on brownfield site redevelopment within the Canadian context, the preliminary literature review and analysis also include general case studies within the United States, United Kingdom, and Canada. This allows for observing a wider contextual spectrum of related issues so that potential commonalities can be identified.

1.1 RESEARCH GOAL, OBJECTIVES, AND QUESTIONS

The primary area of my interest is to study the context of inner city revitalization and transformation focusing on the reuse and redevelopment of blighted/contaminated industrial sites (brownfields). The general research goal is to achieve an understanding of this complex problem context as well as to establish the pertinent planning framework for redeveloping those areas.

¹ Controlling urban growth is a central objective of smart growth and sustainable development strategy which partly includes urban infill redevelopment like the transformation of a non-utilized/underutilized brownfield site into an active and intensive use. “*Every hectare developed in a brownfield project can save an estimated minimum of 4.5 hectares of greenfield land from being developed in an outlying area*” (NRTEE, 2003).

In essence, a planning framework addresses the problem context and potential courses of action that respond to those problems. The findings of preliminary literature review outline a multiple component problem context for brownfield redevelopment. On this basis, three main areas will be the focus in the targeted planning framework including the problem context with multiple components, policy directions and guidelines, in addition to the characteristics of the overall planning process. The research objectives and pertinent central questions reflect these three main areas and as follows:

1. Problem Context: The main objective is to explore the multiple component problem context of brownfield redevelopment and to examine in an empirical setting how these problem components and their linkages impinge on the process. The pertinent research questions include:

- What are the main problem components and issues of brownfield redevelopment planning? What is the impact evaluation of the proposed list of problem components and issues in a given context of brownfield redevelopment?
- How are multiple component problems manifested in brownfield redevelopment context? How do these problem components and their interactive linkages impinge on the individual planning sub-processes and on the overall redevelopment process?

2. Potential Policy Directions: The main objective is to explore and develop potential policy directions addressing problem components and the overall planning process. Also, there is an attempt to study the viability of a key policy direction of tax increment financing (TIF/TIEF) to finance the cost of site remediation.² The pertinent research questions are as follows:

- What are the potential policy directions for application? What is the impact evaluation of the proposed policy directions in a given context of brownfield redevelopment?
- How are potential policy directions related to the overall multiple component context? Is tax increment financing (TIF/TIF) viable to finance site remediation cost?

3. Overall Planning Process: The main objective is to explore planning approaches for brownfield redevelopment and to examine the viability of the hypothetical multiple component integrative planning framework. Also, the objective is to delineate the main characteristics of the overall planning process including the main linkages among problem components and planning sub-processes. The pertinent research questions are as follows:

- What is the appropriate planning framework for brownfield redevelopment?

² Tax increment financing (TIF/TIEF) may be considered as self-financing tool to cover the cost of site remediation phase of redevelopment, because it is based on using the added property value due to redevelopment and as exemplified by the increased future taxes.

- How are multiple component problems and related planning sub-processes represented in a brownfield redevelopment project? What are the main interactive dynamics and linkages within and among components?
- Is multiple component integrative planning viable for brownfield redevelopment?
- What are the main characteristics of the overall planning process for brownfield redevelopment?

In essence, the nature of this research is wider in breadth, because of addressing multiple components and linkages, as well as lower in depth regarding each component. While traditional research usually focuses on a certain component or element and delves deep into the research focus. In other words this research may be characterized as relatively being more horizontal rather than vertical research, looking at the wide spectrum of the planning process and focusing more on linkages among components.

1.2 BRIEF OUTLINE OF LITERATURE REVIEW

The research analysis includes literature review of the applied problem context of brownfield redevelopment planning as well as general planning theory and other related interdisciplinary theories. This will allow for contribution from both the practical and theoretical contexts of brownfield redevelopment planning in addressing the research goal, objectives, and questions.

1.2.1 Applied Context of Brownfield Redevelopment

This literature review highlights issues in three main areas including the problem context, policy directions, and the overall planning process for blighted site reuse and redevelopment. About forty general case studies in Canada, the United States and the United Kingdom are used as one main basis for this analysis, in addition to other related literature on brownfield redevelopment.

Problem Context: The analysis includes an outline of contextual definitions of the main terms for the thesis subject topic, the main factors causing or affecting inner city industrial blight and decline, as well as identifying the main problem components of blighted industrial areas. Contextual definitions included the main issues of blight and blighted areas, inner city context, reuse and redevelopment of existing settings, and planning and the planning process. The literature review highlights similar terms and evolving definition of blighted industrial sites like derelict land (mostly in the U.K.) and contaminated sites (brownfields) (Adams et al, 2010; NRTEE, 2003; Page, 1997; Cairney, 1993). Essentially, the core definition of blight and blighted sites is severe deterioration represented in vacant/abandoned, obsolete, or underutilized buildings and sites. The definition of brownfield sites, in addition to being a blighted area, includes the presence or potential presence of contamination (Adams et al, 2010; USEPA, June 2009; De

Sousa et al, 2009; NRTEE, 2003; Bartsch & Collaton, 1997). The literature review provides a historical background for emerging phenomenon of derelict land and its reclamation in the U.K. since the 1960s and the problem intensified in the 1970s as a result of inner city deindustrialization (Adams et al, 2010). In the U.S. and Canada the brownfield phenomenon emerged in the 1970s and became more critical in the 1980s especially after environmental legislation was enacted to address the problem of contamination and required clean-up. In general, the extent of contamination problem in derelict lands is less critical in the U.K. context as compared with brownfield sites in the U.S. and Canadian contexts (Adams et al, 2010).

The definition of the inner city varied among different references and some acknowledge that there is no specific definition for this term (Ley & Frost, 2006; Bourne, 1982). For this research, a close definition of the inner city is offered by Filion and Bunting (2006) as an area that “*coincides with the central city, a metropolitan region’s oldest municipal administrative unit which occupies its centre*”.

The definition of the reuse and redevelopment process highlights the importance of utilizing existing resources including buildings, heritage values, site and infrastructure resources, in addition to inner city location. The existence of these resources differentiates a brownfield site from a greenfield site. In applicable contexts, the literature highlights the importance of heritage planning and adaptive reuse of historical buildings and sites as a value to be captured and preserved in the redevelopment process (Blick & Gauthier, 2007; Burchell & Listokin, 1981).

The essence of planning is setting a course of action to achieve objectives. Most of the literature adheres to planning as a complex social-political-organizational activity (Fischler & Wolfe, 2006; Alexander, 1992), involving multi-stakeholders and addressing multiple components including the physical, environmental, institutional and social components (Fischler & Wolfe, 2006; Kaiser et al, 1995). Hodge & Gordon (2008) outline that the community planning process includes two processes - a normative process, basically a community based participatory process to define their needs, objectives and acceptable courses of action, and the technical process guided by the professional planners.

The definition of the planning process highlights rational decision making as the core which is outlined in a comparative analysis of the process in five different references (Exhibit 2.4 - Hodge & Gordon, 2008; Brooks, 2002; Kaiser et al, 1995; Alexander, 1992; Litchfield et al, 1975). The rational decision making process is consolidated in five main stages including analysis, design synthesis, evaluation, implementation, and monitoring.

The literature review also reveals criticism of the rational decision making process in the context of comprehensive planning based on the difficulty for a human mind to handle complexity and uncertainty (Brooks, 2002; Beauregard, 2003; Lindblom, 2003; Alexander, 1992). However, the analysis of the literature reveals that the actual criticism is not on the notion of rationality as much as it is on the difficulty in dealing with complexity as well as on centralized technical comprehensive planning and decision making that is characterized as being top-down process and the technical planner played a central role. While in reality the process is a multi-stakeholder, multi-disciplinary decision making process and including multiple component planning sub-processes. Complexity may be analyzed by its components and planning solutions may be phased incrementally. The rational process is still applicable to the planning sub-processes at the component level and to a certain extent to the aggregate overall planning process. However, it is a mixed rationality context in terms of multiple disciplines and multiple stakeholders with different values and objectives. Also, there is no conflict in combining rationality and incremental planning within a comprehensive vision.

Factors Affecting Inner City Industrial Decline: Inner city industrial decline has been mostly the result of deindustrialization within the post-industrial city and for various factors including suburbanization of manufacturing functions leaving obsolete buildings within the inner city (Filion & Bunting, 2006; Ley & Frost, 2006; Yeates, 1998; Stafford, 1982), shift from manufacturing to tertiary sector (services) and quaternary sector (offices) (Bourne, 2006 & 1991; Filion & Bunting, 2006; Yeates, 1998), aging of industrial buildings dating to the 19th century (Jakle & Wilson, 1992; Bourne, 1982), and environmental contamination resulting from some previous industrial functions and associated legal liabilities for cleanup (De Sousa, 2008 & 2006; Thornton et al, 2007; Alberini, 2004; NRTEE, 2003; NRTEE & CMHC, 1997).

Problem Components of Blighted/Contaminated Industrial Sites (Brownfields): The literature review focused on identifying the essential manifested forms of blight and blighted industrial sites. The analysis revealed various forms including functional blight represented in vacant, underutilized buildings and site, physical blight represented in dilapidation (Adams et al, 2010; Jakle & Wilson, 1992; Bourne, 1982), environmental blight represented in contamination and associated health risks (NRTEE, 2003; De Sousa, 2008 & 2006; Thornton et al, 2007), economic blight represented in declining property values and tax base (De Sousa et al, 2009; Chapin, 1965; Berry, 1963), social blight represented in loss of jobs and amenities and impact of social stigma on existing neighbourhoods (Howland, 2007; Chapin, 1965), in addition to political

concerns and conflicting objectives among stakeholders. The analysis for the problem context as well as for the pertinent planning sub-processes is based on the five consolidated components including the functional-physical, environmental, economic, social, and political components.

1.2.2 Policy Directions for Brownfield Redevelopment³

The analysis of favourable circumstances and barriers are used in developing potential policy directions for brownfield redevelopment. This is primarily based on the analysis of about 40 general case studies of brownfield redevelopment projects in Canada, U.S. and U.K. (Exhibit 2.1). The review also included the analysis of government policies and related research on brownfield redevelopment (NRTEE, 2003; OCETA, 2008; De Sousa, 2008). The literature review revealed the following five main areas for potential policy directions:

- Project financing and redevelopment incentives,
- The role of the public sector, private sector and community groups,
- Environmental concerns and legal liability of contaminated sites,
- Project marketability, and
- The planning process with a clear vision.

The identified favourable circumstances are synthesized within each of the above areas based on the analysis of their representation in the general case studies (Appendix 2.1). Potential policy directions are derived from the list of favourable circumstances and according to the mentioned area components (Exhibit 2.7).

The potential functional themes for blighted site reuse and redevelopment are also analyzed in the general case studies. The mixed use residential-commercial-office-recreational complexes are most prevalent among case studies (Exhibit 2.12 & Appendix 2.1.6).

1.2.3 Reuse and Redevelopment Process of Blighted Industrial Sites (Brownfields)

The review is primarily based on the analysis of general case studies in Canada, U.S. and the U.K. (Exhibit 2.1), as well as other related research literature. The findings reveal a planning process with two main implementation packages or phases; the first is site remediation and preparation and the second is site reuse and redevelopment. These two packages are supported by the fact that there is an environmental approval process for site remediation along with the site reuse and redevelopment approval process. The two packages may be performed by the same project developer or by different developers or stakeholders (public and/or private). The finding of literature review of general case studies reveals that the most prevalent redevelopment path for

³ In this research, a policy is a micro-level plan or a main planning decision with primary focus on achieving certain objective(s) within certain component (or components). A policy direction highlights the main objective(s) to be achieved without outlining the overall policy plan.

stakeholders' responsibility is public sector intervention or taking responsibility of the first package of site remediation and then private sector developer taking the responsibility of the second package of site reuse and redevelopment (Exhibit 2.9).

The analysis of the overall planning process also reveals planning sub-processes that address the problem context within each of the problem components. These include the environmental planning sub-process (primarily focusing on site remediation), physical-functional planning sub-process (mainly land use planning, urban design, architectural design, etc), economic planning sub-process (represented by financial planning and marketing), social planning sub-process (like social equity and social safety planning), political/organization planning sub-process (including stakeholders' organizational planning, collaborative/communicative planning, and potential stakeholders' partnerships). These planning sub-processes are integrative components that constitute the overall planning process.

1.2.4 Review of General Planning Theory & Related Interdisciplinary Theories

This literature review highlights contribution of general planning theory including an outline of historical evolution of planning paradigms. The review also includes an analysis of contribution from applied planning and other related interdisciplinary theories. For tabulated contributions from individual theories, see Appendices A3.1 and A3.2.

General Planning Theory

The literature review outlines general and contextual definitions for some of the terms used including planning theory, planning paradigm and planning model.⁴ Planning theory is an elusive subject of study that draws from different disciplines and there is no single agreed upon definition nor is there any consensus on what it includes (Alexander, 1992; Campbell & Fainstein, 2003). Being multi-disciplinary in nature, the definition of planning theory may be placed at its intersection with its various interrelated disciplines including normal and social sciences. Two main aspects of planning theory emerge including the substantive aspect in terms

⁴ A paradigm is defined in simple terms as “a pattern, example, or model”. It is also defined in broad terms as “a philosophical and theoretical framework of scientific school or discipline within which theories, laws and generalizations and the experiments performed in support of them are formulated”. A theory is defined as “a plausible or scientifically acceptable general principle or body of principles offered to explain a phenomenon”. A model is defined as “a pattern or an example for imitation or emulations” (Webster’s Online Dictionary, June 5, 2010). In this research, the term planning paradigm is used to characterize each of the main three contextual categories of planning models or theories, namely mainstream planning that emphasizes the physical-economic context, the socio-political context, and the ecological context. The term model is used for the specific planning approach or theory within each of the three paradigms. The reason for using planning model instead of theory is because the status of general planning theory at this point is a mosaic of various planning approaches and each having its pertinent rationalized principles as well as critical arguments against each approach. Also, there is no consensus on a unified definition of planning theory in a general (Campbell & Fainstein, 2003:1; Brooks, 2002:22).

of its potential constituent component (physical, social, environmental, economic, etc.) as well as the procedural aspect in terms of its representation as a process (Alexander, 1992; Campbell & Fainstein, 2003).

Planning was originally rooted in the context of city building/planning and during the late nineteenth century and early twentieth century, planning was in response to emerging social, environmental, physical and health problems associated with the industrial city (Alexander, 1992; Beauregard, 2003; Fishman, 2003; Hodge & Gordon, 2008). New visions for public health reform and for an ideal city emerged including the “City Beautiful”, “Garden City”, the “Radiant City”, and “Broad Acre City” (Campbell & Fainstein, 2003; Fishman, 2003). Planning included concerns over the city appearance, living conditions, environment, and city efficiency (Hodge & Gordon, 2008). In general, the literature review indicates that the dominant emphasis in those planning ideas and visions was on the physical built environment as the major component in addressing economic, social, and environmental problems and needs.

The literature review also outlines planning approaches and models that address the procedural aspects of planning decision making including rational comprehensive planning, disjointed incremental planning, and mixed scanning (Hudson, 1978; Briassoulis, 1989; Alexander 1992; Brooks, 2002; Campbell & Fainstein, 2003, Beauregard, 2003; Hodge & Gordon, 2008). In addition, the review includes literature that has relatively more emphasis on individual sectoral/component theories including advocacy planning (Davidoff, 2003), social equity planning (Krumholz, 2003), participatory/transactive planning (Friedmann, 1987 & 2003), collaborative communicative planning (Healey, 2003; Innes, 1995), ecological based planning (McHarg, 1969; Slocombe, 1993; Slocombe & Hanna, 2007; Hanna et al, 2007).

The analysis for general planning theory outlines an evolutionary context of a wide range of planning approaches and models which can be classified into three main interactive categories including a mainstream planning that is more inclined to physical and economic development planning paradigm, ecological based planning paradigm, and the socio-political planning paradigm (Exhibit 3.2). Each of these planning paradigms has relatively more emphasis on their pertinent discipline(s) and context. The rational comprehensive model (RCM) evolved from physical planning and was the prevailing main stream planning paradigm during the 1920s thru the 1960s with emphasis on physical and economic development planning (Alexander, 1992). The disjointed incremental model (DIM) emerged in response to critical shortcomings of (RCM) and as a more practical approach for decision making on an incremental piece meal basis. The

socio-political context of planning paradigms is represented by advocacy planning, social equity planning, collaborative planning, and community based planning. The third category of planning paradigms is represented by the ecological context with emphasis on the natural ecosystems. The second and third categories of planning paradigms emerged in response to the shortcomings of the main stream rational comprehensive planning paradigm.

The literature review of general planning theory indicates a direction toward a hybrid planning paradigm combining the three main categories of planning paradigms (Exhibit 3.2).

Applied Planning and Related Interdisciplinary Theories

Literature review includes the pertinent theories and concepts in urban geography, land use planning, urban design, and other related disciplines (Appendix A3.2). This analysis includes:

- ***Inner city functional transformation*** as a result of economic and spatial restructuring of industrial activity (Stafford, 1982; Bourne, 1982 & 1991; Jakle & Wilson, 1992; Broadway, 1995; Yeates, 1998; Filion & Bunting, 1993 & 2006),
- ***Inner city decline and regeneration*** outlined in explanatory hypotheses (Bourne, 1982) and represented in districts of identifiable change including areas of decline, stability, revitalization and massive redevelopment (Ley & Frost, 1991 & 2006),
- The evolving ***intra-urban form and development*** represented in terms of increasing densities and re-urbanization, mixed land uses, increasing social heterogeneity, equitable access to public goods, and cooperative governance with local empowerment, and increasing sense of community (Barnett, 2003; Bourne, 1996). Physical urban form theories including “good city form” focus on spatial form and process and interrelationship between behavioral and physical settings (Barnett, 2003; Kaiser et al, 1995; Lynch, 1984; Alexander, 1987; Trancik, 1986).
- ***Heritage conservation planning*** for historic districts and buildings and the notion of balancing urban renovation and intensification on one side and preserving the built and natural heritage on the other side (Bliet & Gauthier, 2007; Barnett, 2003; Hodge & Gordon, 2008).
- ***Integrating Social, Economic & Environmental Values - Feasibility & Sustainability:*** Balancing values and objectives among the environmental, economic and social components has been the main concept for theories concerning land use planning, sustainable development, as well as ecology-based planning (Kaiser et al, 1995; Breheny, 1992; Slocombe, 1993; Campbell, 2003; Hanna et al, 2007).⁵ Project feasibility should not be limited to developer’s financial

⁵ Campbell (2003) outlines that it is only through resolving the conflicting issues between the main goals of social equity, economic growth, and environmental protection that we can approach sustainable development.

feasibility but should also address public cost and benefits including quantifiable and non quantifiable values of the social and environmental components.

An Emerging Planning Paradigm

Contributions from general planning theory and related interdisciplinary theories indicate an emerging hybrid planning paradigm characterized as holistic, integrated, multidisciplinary, collaborative, and incrementally adaptive that aims at sustainable development (Margerum, 1997; Briassoulis, 1989; Slocombe, 1993; Slocombe & Hanna, 2007; Campbell, 2003).

1.3 BRIEF OUTLINE OF THE RESEARCH PROCESS & METHOD FOR EMPIRICAL STUDY

The overall research process has evolved during the course of my work. In the beginning, the research includes a comprehensive literature review of the problem context of brownfield sites, as well as general planning theory and related interdisciplinary theories. The main core of literature review is the analysis of general case studies of brownfield redevelopment projects in Canada, the United States, and the United Kingdom (Exhibit 2.1). The preliminary findings of literature review include an outline of the main problem components, potential policy directions, as well as outlining the main characteristics of brownfield redevelopment planning process. These findings represent research hypotheses for a preliminary planning framework that are further explored and examined in an empirical research study (Exhibit 1.1). Specific research objectives and questions are developed to guide the design and application of empirical research.

1.3.1 Empirical Research Method and Process

The literature review includes a comparative analysis of the main research paradigms, namely, the quantitative and the qualitative research in addition to the mixed quantitative-qualitative research (Creswell, 1994 & 2009; Robson, 2002; Patton, 1990). In a quantitative research, reality is considered objective, singular, and apart from the research (Creswell, 2009). While in a qualitative research, reality is subjective and multiple as seen by participants in a study and the researcher interacts with the research context (Creswell, 1994 & 2009). The qualitative research is also characterized as being value-laden, informal, evolutionary, inductive, holistic and pattern-oriented to establish understanding. The mixed quantitative-qualitative research is an emerging paradigm where elements of both are included.⁶

⁶ Creswell (2009) outlines that the qualitative and quantitative research should not be seen as isolated poles but different ends of a continuum and a study tends to be more qualitative or quantitative.

The main objectives for empirical research is to explore the multiple component problem and policy context of brownfield redevelopment, to examine the main patterns of linkages within and among components, as well as delineating the main characteristics of the overall planning process. These objectives place the empirical research within the qualitative than the quantitative paradigm. However, a level of quantification may be applicable to some specific issues within this research like impact evaluation of main problems and potential policy directions.

The Case Study Strategy is defined as a research strategy that investigates a contemporary phenomenon within its real-life context and where the boundaries between the phenomenon and the context are not clear (Yin, 2003; Robson, 2002). Yin (2003) also outlines that the case study strategy “*cope with the technically distinctive situation in which there will be many more variables of interest than data points*”. The case study strategy, as a contextual study of a phenomenon, is intrinsically embedded in the nature of this research, which in essence is case specific. Accordingly, the case study strategy is selected for empirical research.

The **case study design** is based on the following components: research objectives and questions, hypothetical propositions, the units of analysis, the logic of linking the data to the propositions, and the criteria for interpreting the findings (Yin, 2003). Yin outlines a matrix of four major types of case study research design based on a holistic single unit of analysis versus embedded multiple units of analysis and on single case study versus multiple case studies (Exhibit 5.3). Given that research objectives address the multiple component context of brownfield redevelopment, then embedded multiple units of analysis is selected. Also, multiple case study design is selected because it allows for exploring variability among cases. This also allows for cross case study evaluation and potential replication of patterns and converging evidence that may increase external validity.⁷

In addition to the holistic case study, the units of analysis are represented by the major five problem components including their pertinent planning sub-processes. Also, implementation planning and a key policy direction are selected as units of analysis due to their relative importance in the site redevelopment process. The research units of analysis are as follows:

1. Environmental-Legal Component: Primarily environmental site remediation planning sub-process and related environmental issues
2. Physical-functional Component: Including land use planning, site planning, urban and building design

⁷ In addition, multiple case study design allows for variability in the selected cases in terms of successful and unsuccessful implementation as well as case studies within medium and large size inner city context (Exhibit 5.4).

3. Economic Component: Financial-investment planning and marketing sub-processes
4. Social-Psychological Component: Primarily social equity and safe community planning
5. Political-Organization Component: Stakeholders' organizational planning including collaboration and partnerships
6. Project Implementation Planning and Phasing
7. Key Policy Direction: Potential policy directions with emphasis on tax increment financing (TIF/TIEF) to cover site remediation cost.
8. The Holistic Case Study: Multiple-component context & overall planning process

Case Study Selection: Four case studies are selected for empirical research which represents successful implementation and unsuccessful cases (not implemented or partially implemented) as well as considering cases within large size city like Toronto and medium size cities like Mississauga and Hamilton. This will allow for studying the reasons for success and for failure as well as examining the effect of city size on site redevelopment (Appendices A5.1 & A5.2). The specific case studies include:

- The Gooderham & Worts Project, Toronto
- Port Centre Development Project, Port Industrial District, Toronto
- Cooksville Quarry and Brick Factory Site, Mississauga
- West Harbourfront Development Study Area including Bayfront Park, Hamilton

Structure and Content for Case Study Analysis: The main sources of information include questionnaire for key participants' interviews who were actually involved in the case studies, in addition to available literature, site visits and archived information. Information from the literature includes all project plans and related information available from the project developer and from the municipality and other government entities involved in the project. The empirical case study analysis includes a brief background, case study plans by project developer and by public approval authority, analysis of key participants' interviews, in addition to findings learned lessons from each case study.

Key Participants' Interviews – Questionnaire Design: The questionnaire for key participant's interviews includes open ended questions as well as structured questions. Both sets of questions are focused on the eight research units of analysis mentioned earlier. The open ended questionnaire aims at getting participants' views about the main issues concerning the planning sub-processes within each component as well as the overall planning process (Appendix A5.2, Exhibit 5a). These interviews are recorded. The structured questionnaire aims at evaluating the impact level of each item of the proposed hypothetical list of main problems and policy directions within each component on the pertinent case study project and as viewed by the key participants in the actual redevelopment process (Appendix A5.2, Exhibits 6b & 7b).

The evaluation framework includes five impact levels/weights including “very Strong (■-5), Strong (●-4), Moderate (▲-3), Weak (□-2), and very Weak (○-1)”. The ranking also includes intermediate levels like “Strong-very Strong”. In addition, the evaluation framework includes “Not Applicable (NA-0)” to the pertinent case study project. The impact levels are represented in symbols to allow for easily capturing the high and low values in visual terms. Also, numeric values are used to allow for obtaining the mean for participants’ responses for each component within each case study as well as for the overall average for all case studies.

Selection of Key Participants: Selection of key participants is based on inclusive representation of all categories of primary stakeholders including the public sector, private sector, and community residents and groups. The potential list within the public sector includes representatives from the municipal approval authority, MOE, in addition to related provincial and federal authorities. The potential participants within the private sector include the project developer, investors, financial institution, planning and other related consultants. The potential participants also include representatives from local community residents and interest groups. A range of ten to fifteen participants are interviewed for each case study which is based on their availability and willingness to participate. Some of the potential list of participants declined or were not accessible. Only the interviewed participants have code numbers which are used as the key in the impact evaluation exhibits for each case study. See Appendix A5.1 for the list of participants for each of the four case studies.

1.4 THESIS ORGANIZATION

The thesis is organized in three Parts. Part One covers literature review and preliminary research findings, which forms the hypothetical proposition and basis for further empirical research. Part Two covers empirical case study analysis including comparative evaluation. And Part Three outlines the proposed planning framework, in addition to conclusions and recommendations.

Part One includes five Chapters. Chapter One is a thesis introduction which provides a brief outline of the literature review including research objectives and questions, in addition to thesis organization. Chapter Two outlines the research problem context including contextual definitions and problem components, current policy context, analysis of general case studies that highlight favourable circumstances for reuse and redevelopment as well as the main issues about the reuse and redevelopment planning process. Chapter Three includes contributions of general planning theory and related interdisciplinary theories. The preliminary findings of literature review are discussed in Chapter Four which also provides directions for empirical research study

including research objectives and research questions. The preliminary research findings are considered as the proposed hypothetical planning framework including the main problems, potential policy directions, and general characteristics of the planning process. The proposed preliminary planning framework is to be further explored and examined in the empirical research which is outlined in Chapter Five and covers the research method including case study design.

Part Two covers empirical case studies and also includes five chapters. Chapters Six through Nine provide a comprehensive analysis and evaluation for the selected four empirical case studies. Chapter Ten includes cross case study comparative analysis and conclusions. The research units developed in Chapter Five of Part One are used as the basis for individual case study analysis as well as for comparative evaluation.

Part Three outlines the proposed planning framework and includes two chapters. Chapter Eleven includes an outline and discussion of the planning framework for the redevelopment of blighted/contaminated industrial sites. This includes the main characteristics of a multiple component interactive problem context, the pertinent policy directions, as well as the theoretical representation for the multiple-component planning process. Chapter Twelve includes a brief outline of main conclusions for this thesis as well as recommendations for further research.

The proposed planning framework and theoretical representation for the general planning process is an attempt to introduce a new consolidated comprehensive vision and approach for planning, namely multiple component integrative planning model. Further research is required to verify and define the parameters of the new planning model.

CHAPTER TWO: PROBLEM CONTEXT AND PLANNING ISSUES ASSOCIATED WITH BLIGHTED/ CONTAMINATED INDUSTRIAL SITES

This Chapter outlines the substantive and applied issues related to the problem context of blighted industrial sites and associated planning issues. It is based on literature review including general case study analysis of about forty cases of blighted/contaminated industrial site reuse and redevelopment in Canada, United States, and the United Kingdom (Exhibit 2.1). This Chapter includes the following sections:

- *Research problem context*
- *Favourable circumstances for reuse and redevelopment of blighted industrial sites*
- *Reuse and redevelopment planning process for blighted industrial sites*

2.1 RESEARCH PROBLEM CONTEXT

2.1.1 Contextual Definitions

The topic of this research requires the contextual definition of at least the following terms and phenomena:

- *Blight in general and blighted industrial sites in specific*
- *Inner city context*
- *Reuse and redevelopment*
- *Planning*

Blight and Blighted Industrial Sites

The term “blight” literally means death or severe deterioration of an organism, part of it, or the conditions constituting its context.⁸ In the context of commercial blight, Berry (1963: 179) proposes that “*blight constitutes an abnormality – a malignant deviation from the healthy state of an organism.*”

As a phenomenon, blighted industrial sites are vacant/abandoned, obsolete, or underutilized industrial buildings, facilities, and other related industrial functions and areas. Such blighted areas may have social, economic, physical, and/or environmental impact problems on the site itself and/or on surrounding properties (Bourne, 1982; NRTEE, 2003; Heberle & Wernstedt, 2006; De Sousa, 2008).

⁸ The ITP Nelson Canadian Dictionary (1996: 148) defines the term blight as “*any of numerous plant diseases resulting in sudden wilting and dying of affected parts; an adverse environmental condition, such as air pollution*”. Other definitions of blight include “*anything that destroys, prevents growth, or causes devaluation [slums are blight on a city]*” (Webster’s New World College Dictionary, 1997: 148).

Exhibit 2.1: List of Case Studies in Canada, U.S.A & Britain Representing Blighted Industrial Site Reuse & Redevelopment

U.S. Case Studies

1. Pure Oil and Gas Farm Project - Minneapolis, Minnesota
2. Soo Line Rail Yard - Minneapolis, Minnesota
3. Wilensky Salvage Yard - Minneapolis, Minnesota

(Bartsch & Collaton, 1997; Schwartz, 1995)
4. U. S. Repeating Arms Complex - New Haven, Connecticut.
5. BF Goodrich Plants - Akron, Ohio
6. AES Business Campus - Akron, Ohio
7. Sears in Lawndale - Chicago, Illinois
8. Uniroyal Tire Factory - Commerce, California
9. Avtex Synthetic Fiber Plant - Meadville, Pennsylvania
10. World Class Steel, Inc. - Ambridge, Pennsylvania
11. Lone Star Steel Comp. Plant - Fort Collins, Colorado
12. Williams Air Force Base - Mesa, Arizona

(Bartsch & Collaton, 1997)
13. The Fort Worth Stockyards - Fort Worth, Texas (Bright et al. 1995)
14. The Charlestown Navy Yard – Boston, Massachusetts (Gordon, 1997)
15. The Industri-plex Site in Woburn, Massachusetts (Brooks, 2006: 229)

British Case Studies

1. Regenerating Industrial River Sides in N.E. England Tyne and Wear Development Corp. (TWDC),
 - 1.1 New Castle Business Park
 - 1.2 Central Quayside
 - 1.3 Hanover Hanging Gardens
 - 1.4 St. Peter’s Basin
 - 1.5 Walker Riverside Park
 - 1.6 Walker Offshore Technology Park
 - 1.7 Little Haven
 - 1.8 Hylton Enterprise Park
 - 1.9 Deptford Shipyard

(MacPherson, 1993)
2. A Sub-Regional Economic Development Initiative: The Leeds and Liverpool Canal Corridor Project.
 - 2.1 Clayton Industrial Park
 - 2.2 Blackburn Waterside

(Tattersall, 1993)
3. Salford Quays 1: The Context (Law & Grime, 1993)

Salford Quays 2: Development & Planning Procedures (Hindle, 1993)

Salford Quays 3: The Urban Design ... (Pidwill, 1993)
4. The London Docklands, (Gordon, 1997)

Canadian Case Studies

1. Toronto
 - 1.1 The Ataratiri Area (City of Toronto, 1991; Allester, 1992, NRTEE & CMHC, 1997a)
 - 1.2 Toronto Harbourfront (Gordon, 1997; Royal Commission, 1992)
 - 1.3 The Port Industrial District - Port Centre Development - Toronto Hydro (TEDCO, 1996; Munson, 1990; Royal Commission, 1992)
 - 1.4 The Gooderham & Worts Complex (Toronto, 1994, Poplack, 1997)
2. Montreal
 - 2.1 The Lachine Canal Revitalization Program (London, 1998; NRTEE & CMHC 1997a; Bliet & Gauthier, 2007)
 - 2.2 Sporadic industrial reuse (Germain & Lessard, 1989)
3. Vancouver
 - 3.1 Pacific Place (Former Expo 86 Site) (NRTEE & CMHC 1997a)
4. Mississauga
 - 4.1 Cooksville Quarry/Brick Factory (Jannock Properties, 1998a; NRTEE & CMHC 1997a)
5. Kitchener
 - 5.1 The Breithaupt Street Industrial Area (City of Kitchener, 1994; Schultz & Curtis, 1996) (Dillon Associates, 1988).
 - 5.2 Sporadic cases (City of Kitchener, 1997)
6. Waterloo
 - 6.1 Seagram Site, (City of Waterloo, 1996)
7. Guelph
 - 7.1 IMICO Site, (City of Guelph. 1998)
8. Hamilton
 - 8.1 West Harbourfront Development Study (City of Hamilton, 1995)
 - 8.2 Bayfront Park (City of Hamilton, 1995)

Other terms have been used to express a similar or related meaning to blighted sites like derelict land, brownfield sites, or contaminated sites.⁹ Contaminated sites represent a severe form of blight. The definition of brownfield sites and derelict land may have some variations in different country contexts like the U.S., Canada, and the U.K., which had different policy implications and had evolved over time.¹⁰

In general, the term “brownfield site” used in Canadian and U.S. contexts, means a “contaminated site whether the result of industrial or commercial uses” (NRTEE, 2003: 1; NRTEE, 1997a: 30; Bartsch and Collaton, 1997). In Canada, brownfields are defined as “abandoned, vacant, or underutilized industrial or commercial properties where past actions have caused known or suspected environmental contamination, but there is an active potential for redevelopment” (NRTEE, 2003: ix).¹¹ In the U.S., the Environmental Protection Agency (EPA) defines the term “brownfield site” as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant”.¹² The definitions of brownfield sites in the Canadian and U.S. contexts are essentially similar; however, there is an added potential for site redevelopment in the NRTEE definition, which indicates a positive sign.

In the U.K., the use of the term “brownfield” is relatively recent and the emphasis was originally on derelict land, which is defined in England as “land so damaged by previous industrial or other development that it is incapable of beneficial use without treatment” (Adams et al, 2010: 78).¹³ Derelict land reclamation was an instrument of regional policy in the 1960s attempting to treat damaged mining and industrial site. The impact of inner city

⁹ In this research, blighted industrial areas may include contaminated and non contaminated sites.

¹⁰ The term brownfields was used in order to attenuate the negative connotations and liability associated with the term “contaminated” especially in the U.S. where federal (CERCLA 1980, Superfund) began discouraging private investment in any property suspected of contamination (Adam et al, 2010: 79).

¹¹ Previous definition of brownfields was “abandoned or idle industrial or commercial land where reuse, expansion or redevelopment of the land is complicated by environmental contamination” (NRTEE, 1997a: 30).

¹² The definition is obtained from the web page of the U.S. Environmental Protection Agency (<http://epa.gov/brownfields/glossary.htm>), accessed on June 2009. According to this web page, the “Brownfields Site” definition is found in Public Law 107-118 (H.R. 2869) - “Small Business Liability Relief and Brownfields Revitalization Act” signed into law January 11, 2002. A Previous definition by EPA when it formally launched its Brownfields National Partnership Action Agenda in 1995 was “abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination” (US EPA, 1995).

¹³ In Scotland, the definition of derelict land was similar but more precisely stated as “land which has been so damaged by development or use that it is incapable of development for beneficial use without rehabilitation and which is not being used for the purpose for which it is held or for use acceptable in the local plan or land which is not being used where contamination is known or suspected” (Adams et al, 2010).

deindustrialization of the mid 1970s resulted in derelict land grants being used more as an instrument of urban rather than regional policy. As a result, the definition of “brownfield” was also changing toward emphasis on previously developed land with potential for redevelopment and as the opposite to “Greenfield”.¹⁴ As outlined by Adams et al (2010), the evolving definition of brownfields was not referring to contamination since this represented a relatively smaller portion of the total brownfield sites and the objective was to encourage redevelopment of such sites regardless of contamination.

In essence, brownfields (contaminated sites) pose a critical environmental health problem that needs to be addressed before any site redevelopment can proceed. Furthermore, the legal context for redeveloping such sites makes it mandatory to address and resolve environmental contamination as part of the redevelopment process.

Extent and Location of Blighted/Contaminated Industrial Sites (Brownfields)

Blighted industrial sites (brownfields) are associated with the general phenomenon of deindustrialization within the post-industrial inner city (Bourne, 1982: 239; Jakle & Wilson, 1992: 86; Stafford, 1982: 82; De Sousa, 2006: 393-394). Brownfields may be found in most of the urban and sometimes the regional areas of the industrialized nations (Exhibit 2.2).¹⁵

Exhibit 2.2: The Extent of Land Contamination	
Country	No. Of Contaminated Sites
Denmark	10,500
France	75,000 square kilometers
Germany	144,000
The Netherlands	110,000
United Kingdom	50,000-100,000
United States	400,000-600,000
	450,000+ (US-EPA, 2009; De Sousa, 2008)
Source: Meyer, et al, 1995: 15	
Canada	20,000 – 30,000 (NRTEE, 2003: 2; NRTEE & CMHC, 1997: 2)

Spatially speaking, blighted industrial sites can be found within the inner city as well as in suburban areas or industrial parks within the city fringe. The focus of this research will primarily be on blighted industrial sites within or near to the inner city. However, the general

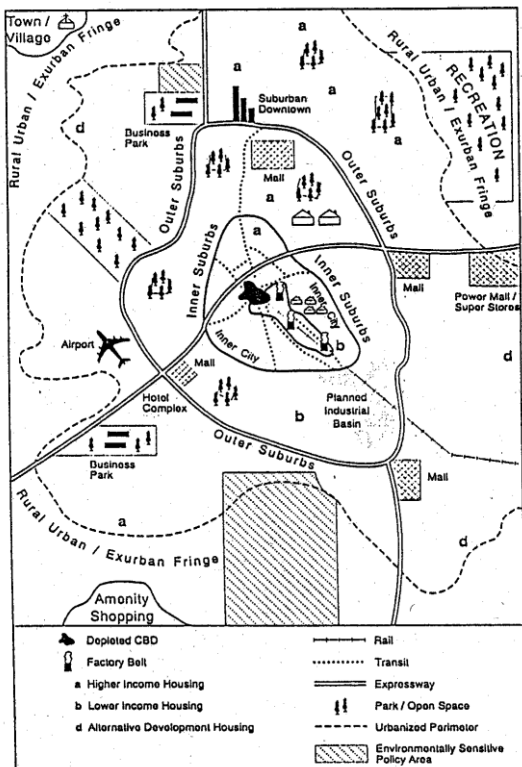
¹⁴ The evolving definition of brownfields is “previously developed land that is unused or may be available for development. It includes both vacant and derelict land and land currently in use with known potential for redevelopment. It excludes land that was previously developed where the remains have blended into the landscape over time (Adams, et al, 2010: 79)

¹⁵ “Virtually every city in the nation’s industrial region, no matter its size, grapples with the challenges of unused manufacturing facilities and other industrial sites” (Bartsch & Collaton, 1997: 1)

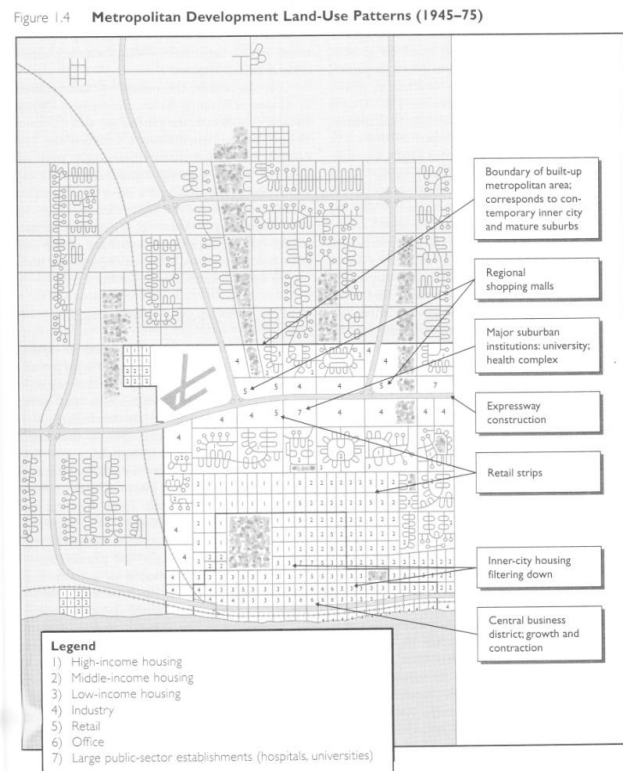
case study analysis includes national and international cases from the two spatial contexts for comparative analysis purposes.

Inner City Context

The notion of the inner city has no specific definition (Bourne, 1982; Ley & Frost, 2006).¹⁶ Bunting and Filion (1996: 10) outline that “*the inner city can be viewed as the city proper which comprises the CBD, the adjacent factory belt and mixed business activities in the ‘zone of transition’, and, older, relatively high-density residential neighborhoods*” (Exhibit 2.3).



(Source: Bunting and Filion, 1996: 11)



(Source: Filion & Bunting, 2006: 15)

Exhibit 2.3: Defining the Inner City

In a later publication and in the context of outlining the evolution of Canadian urban form, Filion & Bunting (2006: 8 & 11) refer to “*City Development before 1945*” as “*what we today call the ‘inner city’ ... In many older metropolitan areas, the inner city coincides with the boundaries of the central city (a metropolitan region’s oldest municipal administrative unit,*

¹⁶ Bourne (1982: 225) outlines that “*the inner city may be the older portion of an urban area immediately surrounding the central business district (CBD) ... It may also refer to the area of ‘transitional’ land uses between the CBD and the ring of ‘mature’ neighbourhoods beyond.*” Ley & Frost (2006: 192) point out that “*while there are, undoubtedly, important themes shared by the ring of old neighbourhoods around the central business district (CBD) that we call the inner city, no single criterion, nor even a combination of criteria, permits boundaries to be drawn around urban areas with any claim to total adequacy.*”

which occupies its centre)".¹⁷ In this research, inner city blighted industrial sites will primarily include those within the CBD as well as within the surrounding transitional zone.¹⁸

While the focus of this paper is on the industrial component of inner city blight, other land use functional components may have experienced decline like commercial functions, warehouses, and residential functions.¹⁹

Reuse and Redevelopment

Reuse and redevelopment is usually associated with physical planning and design. While site or land development usually refers to transforming virgin Greenfield to a desired use,²⁰ site redevelopment applies to previously developed land (PDL) that is characterized by deterioration, obsolescence, and/or underutilization. Site redevelopment usually involves clearing the site from on-grade facilities, structures, and buildings while reusing or upgrading the existing infrastructure for the new functions. This is as if starting again from a clear land.²¹

The term "Site Reuse" suggests that some resources are potentially existing within the blighted area (or surrounding areas) and the aim is an optimal utilization of existing resources. In general, site resources include any element that has value and can be utilized for new planning purposes. They may include various types of values, both quantitative and/or qualitative. Resources may include physical-functional resources such as land area and site location, existing buildings, structures and facilities, infrastructure services, and proximity to resources/amenities like transportation routes and networks in general, downtown, and other amenities. Resources may also include cultural heritage values like historical, architectural, and industrial heritage. Environmental resources may characterize the site such as natural scenery and heritage which would include rivers, parks, and significant natural landscapes. Site context may include social resources such as existing communities, social patterns/organization, and amenities.

¹⁷ Regarding the period of "*Metropolitan Development, 1945-75*", Filion & Bunting (2006) mention that "*suburban areas developed over this 30-year period are now generally referred to as 'mature' or 'inner' suburbs*", which is a different area from the inner city (Exhibit 2.3).

¹⁸ In the case of Cooksville Quarry site in Mississauga, the location was originally within a suburban area and part of a growing edge city. However, the project site is now near to the vibrant city centre of Mississauga.

¹⁹ Residential blight is exemplified in the vacant (abandoned) or underutilized residential buildings, and declining residential neighborhoods (Bourne, 1982: 230-231; Keating, et al, 1996: 1).

²⁰ Land development (of Greenfield) usually requires both new infrastructure services as well as new on ground structures, facilities, and/or buildings.

²¹ Urban redevelopment of inner city slums and declining areas was based on clearing the whole area from all structures/buildings and to start all over again from vacant land. This has been the case with the controversial urban renewal program in the United States (1949-1974 approximately)(Holcomb & Beauregard, 1981: 10-11)

The reuse of existing resources requires adaptation to the newly proposed redevelopment in specific, as well as to the cultural, socioeconomic and biophysical settings in general. For example, the reuse of an inner city vacant factory requires adaptation to the newly proposed function. Also, if such a factory has recognized historical and architectural character, then the new function(s) may have to adapt to the inherent qualities and values - at least the physical building or elements of it. This highlights the concept of “adaptive reuse” of resources as an essential element in the planning process for blighted site reuse and redevelopment. In the context of neighbourhood revitalization, Burchell and Listokin (1981: 1) define adaptive reuse as *“the revitalization strategy which employs a series of linked procedures to: plan for inventory, acquire, manage and reuse surplus or abandoned real estate.”* They outline the adaptive reuse process to subsume the following phases:

- *Planning, Inventory*
- *Property Control*
- *Property Management and Disposition*
- *Physical revitalization* (Burchell and Listokin, 1981: 41-43)

The adaptive reuse of buildings and sites may include a level of site redevelopment, and hence may take any of the following forms (Burchell and Listokin, 1981: 43):

- *Retention of structures in another use.* Here, the adaptive reuse concept emphasizes the importance of the physical component as in the case of industrial sites with significant architectural and historical heritage. This includes building/structure rehabilitation, reuse and conservation as a central theme for the project.
- *A combination of partial retention and partial removal of building/structure.* This approach is to balance the adaptive reuse of existing resources and innovative redevelopment.
- *Building/structure removal and site redevelopment.* In this approach, the adaptive reuse concept is limited to land, infrastructure, and location resources. An example of this approach is the urban renewal and slum clearance programs in the United States, Britain, and other countries.

Capturing the value of industrial heritage through an adaptive reuse process can be a positive added value to brownfield redevelopment and provides another area for public policy to utilize (Bliek & Gauthier, 2007: 40).²² Bliek & Gauthier propose a process of urban morphologies which focuses on the historical evolution of built form and space over time in

²² In a study on mobilizing urban industrial heritage of brownfield landscapes, Bliek & Gauthier propose that *“recognizing and leveraging the heritage value of brownfield sites may open the door to new solutions to planning, policy, and design challenges common to regeneration projects”*. They further point out that *“public policy and planning could benefit from an approach that studies the industrial landscape as a component of an active urban material culture* (Bliek & Gauthier, 2007: 40).

order to understand and define underlying qualities of urban heritage. They also outline that this approach addresses industrial landscape and heritage as a component of an active urban material culture.²³ Given this framework, the adaptive reuse of industrial heritage (site and building) within the context of brownfield redevelopment requires a sensitive process to achieve an acceptable balance between heritage conservation and built innovation.

Planning and Planning Process

In essence, planning is setting a course of action to achieve goals. Alexander (1992:73) defines planning as “*the deliberate social or organizational activity of developing an optimal strategy of future action to achieve a desired set of goals, for solving novel problems in complex contexts, and attended by the power and intention to commit resources and to act as necessary to implement the chosen strategy.*” Alexander outlines the following characteristics of planning as a decision making process:

- “*Goal oriented*”
- “*Future oriented*” but may address issues and objectives of all times
- A social or organizational activity being “*collective of multi-stakeholders*”
- Committed to the “*use of available and potential resources*”
- “*A problem solving process*” addressing novel problems in complex contexts
- “*A complex decision making process*” consisting of stages and multiple decisions and decision making sub-processes
- “*Adaptive*” to variations over time due to “*complexity*” and “*uncertainty*”
- “*Cyclical and reiterative*” with feedback and feed forward loops
- “*A continuous process*” through setting a course of action as well as course implementation and monitoring (Alexander, 1992: 72-74).

Fischler & Wolfe (2006: 338) outline that “*planning may be defined as the collective management of development, that is, the use of foresight to influence the evolution of society through the built, natural, and, to a lesser extent, social environments, according to shared values and collective interests. It is a political activity in which communities, from the local to the national scale, enunciate visions of a better future, elaborate policies, plans, and programs to realize them, and organize processes and institutions to facilitate decision making and*

²³ Bliet & Gauthier outline that urban morphology is “*a research tradition focusing on the evolution of urban forms (i.e. morphologies), examining the consistency and resilience of built space in the face of social, political, and economic systems and structures. It also addresses the historical sedimentation of urban artefacts by unveiling the mechanisms of transformation and conservation that affect the evolution of built environments.*” They point out that the process of urban morphology consists of multiple parts: “*a ‘reading’ of the material form of the city, revealing its latent, underlying logic, and a work of decodification or interpretation of the city through its cartographic reconstruction over time, revealing the constitutive elements of its urban form and their relations through time*” (Bliet & Gauthier, 2007: 47).

implement decisions.” In this definition, planning is a multi-stakeholder political activity that addresses the built/physical, natural, and social environments/components. The economic component is not explicitly mentioned in this definition; however, it is indirectly implied through physical development.

In the context of land use planning, Kaiser et al (1995: 35) describe planning as a “*turbulent activity due to the complexity and dynamism of its social, physical, institutional, and policy environments. No single theory of planning for urban change adequately describes the full range and complexity of land use planning practice.*” They see planning activity as combining analysis, synthesis, and consensus building among main stakeholders in the process in order to achieve balance among three competing sets of values including the social, economic, and environmental. They also outline that, due to this complexity and uncertainty, the planning process has to combine rational and adaptive techniques to achieve the goals that best benefit the community. In essence, this definition addresses the multiple components of planning and the rational decision making process in an adaptive mode and within a multi-stakeholder setting.

In the context of planning Canadian communities, Hodge & Gordon (2008: 173) outline that “*the community plan-making process comprises, essentially, two planning processes. One is the **normative process** that a community, usually through its municipal government, undertakes to determine its needs, objectives, acceptable courses of action, and whom to involve in the deliberations regarding its plan. The other is the **technical process**, primarily followed and guided by the professional planners, or their counterparts, of studying the community and designing the plan.*” The community planning process is not only a logical process for decision-making; it is also a participatory process including the planners, policy makers, developers and the community. In essence, the conceptual theme for the community planning process follows the rational decision-making framework; however it is “*bounded rationality*” (Hodge & Gordon, 2008: 176). Also, the process is in the context of community participation as if planning is done for and by the community. In general, community planning is partly done by the public approval authority (municipal and provincial) that sets the regulatory framework for project approval, and by the developer’s team which includes professional planners and other related disciplines.

Planning, as a decision making process, consists of stages similar to those of the rational decision making model, basically analysis, synthesis, evaluation, implementation, and

monitoring (Alexander, 1992: 74; Hodge & Gordon, 2008: 175; Brooks, 2002: 162).²⁴ In essence, planning is the human inclination toward applying some sort of reasoning in decision making.²⁵ The planning process is seen as a sequential, multi staged process in which each stage is interlinked with its previous or subsequent stages by feedback and/or feed-forward loops (Hodge & Gordon, 2008: 176; Brooks, 2002: 162; Alexander, 1992). In other words, decisions are interdependent and recursive throughout the planning process. The stages of the planning process can have various levels of articulation. Exhibit 2.4 provides an outline of five models of the planning process taken from (Hodge & Gordon, 2008: 176; Brooks, 2002; Kaiser et al, 1995: 38; Alexander, 1992: 74; and Litchfield et al, 1975: 20), in addition to the proposed consolidated model. The reasoning for the consolidated model is the need to conceptualize the complex overall planning process in its simplified but essential stages. The consolidated conceptual model is useful for quick scanning/scoping the overall process, and the articulate form of the process is useful when looking at a specific stage or issue in the process. The consolidated model for the planning-decision making process may be represented in the following five stages:

1. Analysis (of problem context including articulation of problems, goals and objectives, stakeholders and concerned parties, time context, and priorities)
2. Design Synthesis (of alternative plans, policies, or courses of action)
3. Evaluation (of alternative plans/courses of action and selecting the desired alternative)
4. Implementation (of selected plan/course of action in a real world context)
5. Monitoring (or operational management of adopted decisions, implemented plans, and courses of action over time)

Each of the major stages of the consolidated model consists of its own level of decision-making processes and pertinent objectives. Hence, each consolidated stage may be envisioned as a mini planning sub-process that consists of its own pertinent stages of the rational decision making process. An important factor in finalizing decision making is the time available and timing of activities.

²⁴ In reference to “Rational Decision Making” as one of the values of planning, Hodge & Gordon (2008: 133) outline that *“a direct outgrowth of professional planners’ roots in utilitarian philosophy is the great faith placed in reason as a means to determine solutions to community planning problems. Planning also grew up at the time of civic reform movements that stressed the use of rational administrative and management approaches to local government.”*

²⁵ In this research, “rational” is used to mean, “reasoning and making sense” rather than “having a perfect solution/decision” based on complete knowledge. Reasoning and making sense may be based on multiple types of criteria/components and according to multiple stakeholders’ values and objectives, which implies “substantive rationality” as defined by Alexander, 1992: 40. Also, it may include adaptive changes in the process that make sense. Review of the traditional rational planning process and its limitations as well as other decision theories will be discussed in Chapter Three.

Exhibit 2.4: Five Models of the Planning Process and a Proposed Consolidated Model Based on the Rational Decision Making Process					
Hodge & Gordon (2008: 176) <i>“Planning Canadian Communities”</i>	Brooks (2002: 162) <i>“Planning Theory for Practitioners”</i>	Kaiser, Godschalk, & Chapin (1995:38) <i>“Urban Land Use Planning”</i>	Alexander (1992: 74) <i>“Approaches to Planning: Introducing Current Planning Theories”</i>	Litchfield, Kettle, & Whitebread (1975:20) <i>“Evaluation in the Planning Process”</i>	Proposed Consolidated Model for Stages of the Planning Process
Community Express Need to Improve the Environment	Note: Process includes Feedback from Planner’s Social & Political Environment		1. Problem Diagnosis	1. Preliminary Recognition & Definition of Problems 2. Decision to Act and Definition of the Planning Task 3. Data Collection, Analysis, & Forecasting	1. Analysis of problem context including: <ul style="list-style-type: none"> • Problem Definition - Survey • Community Participation • Goals & Objectives • Design/Evaluation Criteria & Priorities • Pre-design synthesis of ideas and patterns relating to specific issues or problems but not necessarily a plan for the whole problem context
1. Identify Problem & Articulate Goals 2. Survey Community Conditions and Make Predictions	Problem				
1. Identify Problem & Articulate Goals 2. Survey Community Conditions and Make Predictions	1. Define the Problem Operationally	1. Goals and Objectives	2. Goal Articulation 3. Prediction/ Projection	4. Determination of Constraints & Objectives 5. Formulation of Operational Criteria for Design	
3. Design Alternative Plans to Suit future Conditions	2. Consider Alternatives	2. Design of Alternatives	4. Design of Alternatives	6. Plan Design	2. Design Synthesis (of alternatives - Plans/Courses of Action)
4. Compare & Evaluate Alternative Plans 5. Adopt One Plan	3. Make a Preliminary Choice 4. Experiment (Design & Implement) 5. Evaluate 6. Make a Disposing Decision (Final Plan)	3. Evaluation of Consequences 4. Choice of Preferred Alternatives	5. Plan Testing 6. Plan Evaluation	7. Testing of Alternative Plans 8. Plan Evaluation 9. Decision-Taking	3. Evaluation (of alternatives & selection of desired plan)
6. Develop a Program to Implement Plan	Further Experimentation & Modification to Achieve Goals • Continue Experiment	5. Implementation	7. Implementation	10. Plan Implementation	4. Implementation (of selected alternative)
7. Monitor Current Trends and Review Outcome of Plan	• Modify • Terminate • Institutionalization • Terminate	6. Monitoring			5. Monitoring (operational management of implemented alternative & evaluation over time)
		7. Planning Revision		11. Review of Planned Developments Through Time	

2.1.2 Factors Causing or Affecting Inner City Industrial Decline and Blight

Inner city decline and rejuvenation can affect the redevelopment potential of blighted industrial sites. During the period after World War One, many post-industrial inner cities experienced decline vis-a-vis suburban areas both in terms of population and manufacturing jobs (Broadway, 1995; Bourne, 1982 & 2006; Stafford, 1982; Filion & Bunting, 2006; Ley & Frost, 2006).²⁶ In a study on twenty-first century urban structure, Filion & Bunting (2006) outline three periods for the evolution of Canadian urban form including city development (before 1945), metropolitan development (1945-1975), and suburban domination (1975-present). They point out that during the second period (1945-1975), manufacturing was relocating in suburban industrial parks, there was heavy dependence on trucks, and an increasing importance attached to the service sector which translated into more service centres in suburbs and office development in both the CBD and suburbs. In the context of the Canadian inner city, Ley & Frost (2006) outline that not all districts were showing decline, and point out variations among districts with identifiable change including districts in decline, stability, revitalization, and districts in massive redevelopment.²⁷ In the context of the American inner city, Bourne has outlined the following hypotheses that may explain some of the main causes for inner city decline:

- *Natural Evolution*: human ecological succession and down filtering
- *Pull factor*: preference for suburban living and location
- *Obsolescence*: deterioration of the built environment and social infrastructure
- *Unintended Policy*: government policies favoring suburbs like housing and transportation
- *Exploitation*: unequal development in favor of suburbs
- *Structural Change*: deindustrialization and economic decline
- *Fiscal Crisis*: declining resource base and rising costs of services
- *Conflicts*: social class polarization (Bourne, 1982: 235-241).

Inner city industrial decline has mostly been the result of the phenomenon of deindustrialization within the post-industrial inner city (Bourne, 1982: 240; Jakle & Wilson,

²⁶ In a study of 22 Canadian CMAs, Broadway (1995: 7) outlines that inner city population of (21) CMAs was declining during the period 1971-1981, and it was declining in (15) CMAs during 1981-1991. He outlines that, “*The forces behind inner-city decline and rejuvenation are part of the post-industrial phase of modern capitalism. The shift from a manufacturing to a service economy has resulted in disproportionate losses of blue collar jobs in the inner city and a bifurcated work force within the service sector*”. He also outlines that during the period 1971-1991 “*the largest percentage reductions in inner city population occurred among those cities in regions dependent upon primary resources or manufacturing*”.

²⁷ Regarding districts in decline within Montreal’s inner city, it was deindustrialization and the consequent collapse of the economic base in the industrial southwest that resulted in unemployment of over 20 per cent and demographic flight, as the population fell by one half during the period from 1961 to 1986 (Ley & Frost, 2006).

1992; Stafford, 1982: 82; Yeates, 1998: 274; Ley & Frost, 2006: 195). There were various factors that caused or affected industrial blight or decline. They are briefly as follows:

- The spatial restructuring of industrial activity, especially the move of manufacturing functions to suburban and peripheral locations (e.g., industrial parks), resulted in the abandonment of obsolete industrial buildings and sites within the inner city (Filion & Rutherford, 1996: 260; Filion & Bunting, 2006: 9; Ley & Frost, 2006: 206; Stafford, 1982; Yeates, 1998).²⁸

- The restructuring of industrial activity in the post-industrial city resulted in a shift from the manufacturing sector to the tertiary sector (services) and to quaternary functions (offices) (Bourne, 1991: 187; Bourne, 2006: 451; Stafford, 1982: 81). The inner city has been more attractive for the service activities and office functions than for manufacturing (Stafford, 1982: 81; Yeates, 1998: 292; Filion & Bunting, 2006: 9).

- The aging of some of the industrial buildings and sites, which date back to the nineteenth century, in addition to physical abuse and lack of maintenance, resulted in the physical deterioration of those buildings and their related environments creating visual blight (Bourne, 1982: 237; Jakle & Wilson, 1992: 88-90).

- The nature of some of the old industrial production processes in various industrial countries caused critical environmental contamination which has been a major human health hazard and resulting in what are so called brownfield sites²⁹ (Bartsch and Collaton, 1997: 1-3; Meyer, et al, 1995: 15; NRTEE & CMHC, 1997: 2). Environmental legislation holding specified parties legally liable for the cost of decontamination further exacerbated the problem of brownfields and their redevelopment because investors were hesitant to take the risks of their redevelopment (Alberini et al, 2004: 329; Thornton et al, 2007: 43).³⁰

²⁸ Several factors fostered the suburbanization of manufacturing functions including:

- (i) Technological advances in the industrial process (large horizontal production lines) required single story and ample space plants, which favored accessible suburban locations (Stafford, 1982: 83).
- (ii) The limited-access highway network and the rapid growth of truck hauling encouraged suburban manufacturing location in terms of accessibility and availability of space for trucks and required parking (Ibid.).
- (iii) Land is less expensive and in greater supply in peripheral locations (Yeates, 1998: 281).
- (iv) Advances in telecommunication and information processing technologies made centrality less critical and fostered the decentralization process of manufacturing industry (Holcomb and Beauregard, 1981: 9).
- (v) Government programs helped in the out-immigration of industrial activity by providing investment incentives and subsidies for new suburban locations (Jakle and Wilson, 1992: 70).

²⁹ In the U.S., the National Priority List (NPL) of severely contaminated sites includes 1300 sites that are qualified for federal funding for site remediation/decontamination under the Superfund Program (CERCLA); and the overall number of contaminated sites is estimated at about 500,000 sites nationwide (Bartsch and Collaton, 1997: vii).

³⁰ Greenfield development has become economically more attractive than inner city brownfield site redevelopment (Bartsch and Collaton, 1997: 3).

- The suburbanization of population, jobs, and some of the inner city functions (like commercial activities in the form of big-box retailing) further added to inner city economic market decline vis-a-vis suburban economic market growth (Bourne, 1982: 232; Broadway, 1995: 7), as in the case of Kitchener (Filion and Bunting, 1993: 12).³¹

Blighted industrial sites can affect and are affected by declining inner city conditions. It is an interactive setting and any solution for blighted industrial sites has to address the problem components associated with those sites in specific and the inner city conditions in general.

2.1.3 Problem Components of Blighted/Contaminated Industrial Sites (Brownfields)

The problem of blighted industrial sites can be manifested and viewed as the decline, deterioration, and/or obsolescence of one or more components including the physical, functional, environmental, economic, and social components (Jakle and Wilson, 1992: 86; Bourne, 1982: 236; Chapin, 1965: 311; Berry, 1963: 181). In the context of post-industrial cities and deindustrialization, Jakle and Wilson (1992: 86-90) focus on the physical and functional components of blighted industrial sites (or derelict industrial landscapes), and outline the following dereliction types:

- Vacant (no longer active) plant, but good physical condition of building/facility, (***functional blight***).
- Underutilized factory that is not fully maintained physically although operations may continue. This results in physical deterioration and functional (economic) underutilization (***minor physical-functional blight***).
- Buildings that are structurally abused as new functions are fitted in spaces poorly designed to receive them (***physical-visual blight***).
- Abandoned structures without maintenance or direct supervision (***physical-functional blight***).
- Factory under demolition (***severe form of physical-functional-visual blight***).

Bourne (1982: 236-237) outlines *obsolescence* as one hypothesis for inner city decline, which can take several forms:

- ***Functional*** when the existing structure is no longer economically usable because of design, location, or demand
- ***Physical*** when the structure is uninhabitable
- ***Social*** where preferences are no longer in demand

In the context of commercial blight, Berry (1963: 181) identifies the following four types of blight as well as their composite form of blight:

³¹ Filion and Bunting (1993: 12) outline that in Kitchener, the CBD retail share of the metropolitan region was 59.7% in 1961, 26.3% in 1971 and 11.6% in 1990. Over the same period, the share of Fairview Park Mall increased from 11% to 45.8%.

- ***Physical blight*** occurs when the structure occupied by the business deteriorates
- ***Functional blight*** occurs when a certain function is technologically obsolete
- ***Economic blight*** exists when there are losses of markets due to changes in demand
- ***Frictional blight*** exists when a business has a deleterious effect on surrounding land use functions, or conversely when the surrounding functions adversely affect this business³²
- ***Composite form of blight*** occurs when more than one form of blight is manifested in a particular case, and this is the prevalent situation

In the context of measuring structural and environmental quality to define certain treatment areas, Chapin (1965: 310) identifies the following two major forms of blight:

- ***Simple forms of blight*** include:
 - *Physical* characteristics such as structural deterioration, missing sanitation facilities, presence of trash and rubbish accumulations in yards, environmental influences such as noise, odors, dust, and missing community facilities.
 - *Social* and *Economic* indicators are also associated with *Physical* blight. *Economic* indicators of blight include tax delinquent properties, declining property values, and presence of an abnormally large number of building vacancies. Such declining environments are conducive to social problems like vandalism and crime.
- ***Complex forms of blight*** exist when an area contains a mixture of incompatible land uses, unsafe or unhealthful conditions like lands subject to floods, marshiness, or tidal flows. These represent physical-functional and environmental indicators of blight. A good example of this is the former west Don Land site in Toronto - Ataratiri project.

In a study on Brownfields Redevelopment and the Quest for Sustainability, De Sousa (2008: 8) outlines the following major types of brownfields risks:

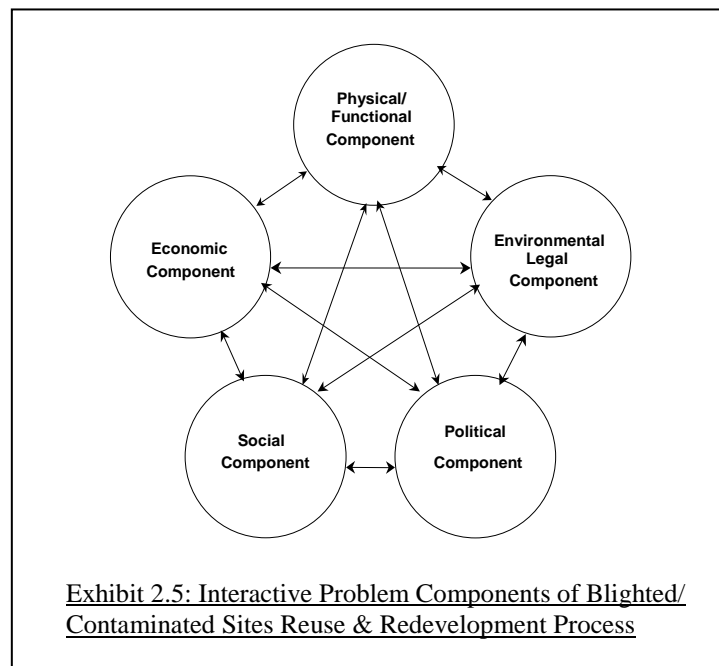
- ***Health Risks:*** High probability, low consequences, ongoing, chronic (human health focus)
- ***Ecological/Environmental Risks:*** Subtle changes, complex interactions, long latency, macro-impacts (habitat impact focus)
- ***Public Welfare/Goodwill Risks:*** Perceptions, property-value concerns, aesthetics (value focus).

The phenomenon of contaminated sites (brownfields) emphasizes the environmental-legal component of blight, where environmental contamination poses threats to human and ecological health. Environmental legislation made it mandatory to clean-up contamination prior to site redevelopment (NRTEE, 2003: 11; NRTEE & CMHC, 1997; Bartsch & Collaton, 1997; Howland, 2007: 91). High costs of site clean-up and legal liabilities resulted in the physical and functional abandonment of such sites. This condition has resulted in declining property values and tax base. This is referred to as the negative multiplier or chain effect of a problem.

³² A good example of frictional blight is the case of abandoned/contaminated industrial sites. They pose human and ecological health problems as well as a potential source of social problems like crime, vandalism, and fire hazards.

Conclusions

As outlined above, urban industrial blight indicators may be represented in multiple problem components including the environmental, physical, economic, social, and political components. Thornton et al (2006: 41) outline “*the need for new brownfield-specific sustainability and indicator framework (encompassing social, economic, environmental, and institutional aspects) that can be used to benchmark the success of redevelopment.*” The relative importance of those components/indicators of blight can be influenced by stakeholders’ values and interests, functional processes, technological advances, changing preferences, changing markets, and/or aging structures. Stakeholders priorities, conflicting interests, and who has the decision making power are detrimental factors. This highlights the importance of the political component in this problem context. However, it is important to view and evaluate all problem components collectively and integratively since there are linkages among them.³³ The problem components are mutually interactive and are briefly characterized as follows (Exhibit 2.5):³⁴



³³ In a study on re-using industrial areas within European inner cities, Vrijthoff (2006: 6-7) outlines the complexity of spatial intervention as follows: “*There is often a series of smaller, connected problems, between which interaction occurs. These smaller problems cannot be solved either separately or one after the other, because the solution to one partial problem affects a series of other partial problems. All these smaller problems therefore have to be approached as a totality of linked parts, because integrated partial problems require integral solutions.*”

³⁴ The double-sided arrows in Exhibit 2.5 represent the interactive nature between components.

- **Physical Blight** includes structural deterioration, lacking or deterioration of sanitation facilities and other network services (Jakle and Wilson, 1992: 88; Bourne, 1982: 237). This often leads to visual blight (visual eyesore) like in the case of industrial buildings along rail corridors.

- **Functional Blight** exists when the structure or facility is no longer economically usable because of design (like limited area or size of spaces), location or technological obsolescence (Jakle and Wilson, 1992: 86; Bourne, 1982: 237). This may occur even though the building structure is still sound like in the case Gooderham & Worts complex in Toronto.

- **Environmental Component of Blight** appears when the industrial facility has an adverse impact on human health, the surrounding areas, or the environment in general like in the case of contaminated buildings and sites (brownfields) (Bartsch & Collaton, 1997: 2; Page, 1997: 1; Heberle & Wernstedt, 2006: 485; De Sousa, 2006: 393).

- **Economic Component of Blight** is manifested in declining property values, tax delinquent properties, and declining markets in general. Also, it is reflected in the presence of an abnormally large number of building vacancies (Chapin, 1965; Berry, 196; De Sousa, 2008). Economic blight in terms of declining property values may affect and be affected by blighted industrial sites as well as affecting their reuse and redevelopment process (De Sousa, 2009).³⁵

- **The Social and Political Components** of blighted industrial sites are manifested as a consequence of vacant/abandoned buildings and sites, which will be potential target areas for social abuse, crime, and fostering problems of social inequities and social stigma (Chapin, 1965: 311). Also, it may be the result of other interrelated socioeconomic disparities like the relatively high unemployment rate, lower skills, and accessibility to jobs by local residents that are associated with such areas.³⁶

The problem components of industrial blight are interactive in nature and hence imply an integrative approach for the composite forms of blight and to deal with the problem collectively. In reference to sustainable brownfield redevelopment and integrating multiple components, Heberle & Wernstedt (2006: 482) point out that “*each brownfield redevelopment decision itself*

³⁵ In a study on the effect of publicly assisted brownfield redevelopment on surrounding property values in two US cities (Milwaukee and Minneapolis), De Sousa (2009:103) found that “redevelopment of the brownfields led to 11.4% net increase in nearby housing prices in Milwaukee and 2.7% net increase in Minneapolis .

³⁶ In a study on employment effects of brownfields, Howland (2007: 97) outlines that “*because the most toxic sites often correlate with the most distressed neighbourhoods, policy makers are likely to face a trade-off in their pursuit of both environmental justice and economic development. Several researchers have documented that low-income communities and minorities tend to reside in closer proximity to hazardous waste sites, industrial facilities releasing toxic pollutants, and facilities using toxic chemicals in industrial production.*”

can spur discussion over the long-term vision of a community, spanning threats to public health and nature, assessing the prospects for the betterment of economic livelihood, and enhancing social equity and public participation. Addressing these concerns in an integrated fashion at the intersection of social, economic and environmental forces could provide a model for sustainable practice.” Thornton et al (2006) propose a framework for sustainable brownfield regeneration to assess redevelopment success, which includes social, environmental, economic, and institutional dimensions of sustainability.³⁷ In essence, the four dimensions of sustainability address the problem components of brownfield redevelopment. The physical-functional component is missing in this framework which needs to be added since it is the core of the redevelopment process. The main issues and problems regarding each component are outlined in Exhibit 2.6.

Exhibit 2.6: Problem Components and Their Respective Issues, Problems and Barriers		
Problem Components		Main Interactive Issues, Problems, and Barriers
1.	Environmental-Legal Component	<ul style="list-style-type: none"> • Environmental contamination of sites and buildings • Environmental health hazard for both human and natural ecosystems • Legal liabilities of contamination and decontamination (current and future liabilities as well as real and perceived liabilities as perceived by private developers)
2.	Physical-Functional Component	<ul style="list-style-type: none"> • Vacant, abandoned, or underutilized buildings and sites • Structural/physical dilapidation of buildings, and • Deterioration of physical infrastructure networks • Declining environmental image of the area resulting in social & economic problems • Lack of brownfield site inventory makes planning on a site by site basis
3.	Economic-Financing & Marketing Component	<ul style="list-style-type: none"> • High cost of site remediation and preparation which may exceed site real estate value • High cost of building renovation and restoration • Scarcity of public funding and high cost of traditional private financing • Declining property values and tax base. Also, declining economic market of the area • High costs and risks make project perception as economically not feasible and drive developers & investors to Greenfield development rather than Brownfield redevelop.

³⁷ Thornton et al (2006: 47) define sustainable brownfield regeneration as “the management, rehabilitation and return to beneficial use of the brownfields in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations in environmentally sensitive, economically viable, institutionally robust, socially acceptable and balanced way within the particular regional context”. Essentially, sustainable brownfield regeneration addresses the following multiple dimensions/components collectively:

- **“Environmental Sustainability:** resource use does not exceed regeneration rate; consumption of non-renewable resources decreases; there are no negative ecological impacts.
- **Social Sustainability:** actual community needs are met; equal access to benefits, resources and information is available; social disparities are reduced; improvement in the community’s standard of living.
- **Economic Sustainability:** direct and attractive economic benefits are experienced by all stakeholders; fully internalized costs and benefits are used.
- **Institutional sustainability:** compatibility with local culture, moral issues and ethics; responsibilities are shared through participation; impacts on involved organizations and institutions are visible; wide-spread involvement in decision-making; legislative and fiscal framework”.

4.	Social-Psychological Component	<ul style="list-style-type: none"> • Abandoned buildings and sites are potential areas for social abuse, vandalism, and crime (no man’s land) • Declining environmental image and stigmatization of the area especially when close to residential communities • Negative socioeconomic impacts on surrounding residential communities and creating problems of social inequities and social injustice³⁸ • The existing low educational and skill levels and high unemployment rate among residents further enhances the problem of accessibility to newly generated socioeconomic opportunities.
5.	Political-Institutional, Organizational Component	<ul style="list-style-type: none"> • Conflicting/competing goals, interests, and values of primary stakeholders • Imbalances of power distribution in the decision making process • Insufficient or lacking trust among stakeholders • Lack of organizational and collaborative commitment among stakeholders toward resolving the problem • Delays in regulatory review approval process increase project time and cost

The problems and issues outlined above form a general base and understanding for the overall problem context. However, certain problems may form critical barriers in a given context of brownfield redevelopment. The report for the National Brownfield Redevelopment Strategy (NRTEE, 2003: 8) outlines the following barriers that should be addressed in a policy recommendation context:

- *“Lack of access to capital*
- *Regulatory liability risk*
- *Civil liability risk*
- *Limited access to insurance protection*
- *Regulatory delays*
- *Stigma and risk perceptions*
- *Lack of awareness among many key public sector and private sector groups”*

This framework does not address some of the redevelopment barriers within the political and social components like stakeholders’ conflicting interests and objectives in addition to social inequity issues regarding local community residents.³⁹

The findings of a study on brownfield redevelopment for housing prepared for CMHC (April 2005) revealed the same traditional barriers as those generally experienced by brownfield redevelopment including liability, regulation, financial issues, technological innovation, planning process, and stigma.⁴⁰

³⁸ In some cases, local unemployed residents were former employees of the blighted/abandoned factory, which raises the notion of fairness of accessibility to the newly created jobs. This is discussed in the following section.

³⁹ Social inequity issues in terms of accessibility of local residents to newly generated opportunities (jobs) may not be a critical issue in the Canadian context of brownfield redevelopment. However, this issue is evident in the U.S. context since most of the brownfields are close to low income areas (Howland, 2007).

⁴⁰ As outlined in the CMHC study report (April 2005), the barriers for brownfield redevelopment are as follows:

- *Liability: Joint and several liability; strict interpretation of the “polluter pays”*

Given the above outline, the main barriers to brownfield redevelopment are evident in all problem components which are in a way represented in the generic list of problems and issues outlined in Exhibit 2.6. The redevelopment barriers will require policy recommendations to address and resolve the pertinent problems. This will be discussed in the following section.

2.2 FAVOURABLE CIRCUMSTANCES FOR REUSE & REDEVELOPMENT OF BLIGHTED/CONTAMINATED INDUSTRIAL SITES (BROWNFIELDS)

The literature review and analysis of general case studies of blighted industrial sites in Canada, U.S., and U.K. reveal common prevailing favourable circumstances for the reuse and redevelopment of blighted industrial sites. These favourable circumstances can be categorized in the following main areas:⁴¹

- *Project financing and redevelopment incentives*
- *The role of government authorities, the private sector, and community residents*
- *Environmental concerns and the legal liability of contaminated sites cleanup*
- *Project marketability*
- *The planning process with a clear vision*

The pool of favourable circumstances will form the main basis for developing potential policy directions for brownfield redevelopment.

2.2.1 Project Financing and Redevelopment Incentives

The central and critical issue for reuse and redevelopment of blighted industrial sites is how to finance such projects. The main favourable circumstances are briefly as follows:

- *Availability of public start-up funding to prepare blighted sites for reuse and redevelopment*
- *Accessibility to Government programs (e.g., grants) that can foster the redevelopment process*
- *Availability of tax and other redevelopment incentives*
- *Availability of low -interest rate loans for private developers and investors,*
- *Availability of government funds for backing the redevelopment process in critical times;*
- *The existence of a self-financing mechanism that has the potential to recover initial costs as well as having a continuous rolling effect on financing other blighted sites (like tax increment financing –TIF or tax increment equivalent financing TIEF)*

-
- *Regulation:* Costly generic remediation criteria versus risk assessment and management approaches that are relatively more cost effective; direct regulator sign-off; lack of better tools for better risk assessment; lack of better science in generic clean-up standards; timely reviews for environmental approval
 - *Financial:* Access to private finance; affordable environmental insurance; availability of public incentives
 - *Technology:* Lack of available information on alternative remediation technologies
 - *Planning:* complexity and time required for approval process; not supportive land use policies; ample supply of Greenfield land for residential development
 - *Stigma, Education and Awareness:* lack of easily accessible and understood information on brownfield redevelopment (CMHC, April 2005).

⁴¹ See Exhibit 2.1 for list of general case studies and see Appendix A2.1 for a detailed outline of favourable circumstances categorized by area components and applied to the general case studies in Canada, U.S., and the U.K.

- *Blighted sites within special district zoning are provided with tax and/or redevelopment incentives (e.g., enterprise zones).*
- *Shared public-private sector financing of site remediation and preparation costs*
- *Other financial incentives like providing mortgage guarantees and removing liens & arrears*

Availability of Public Start-up Funding Including Public Programs and Grants

The primary critical issue that faces brownfield redevelopment is the availability of start-up funding to clean-up and prepare such sites for redevelopment⁴² (NRTEE, 2003: 6; Heberle & Wernstedt, 2006: 490; De Sousa, 2006: 399; Adams et al, 2010: 90). In many cases, this initial stage was not financially feasible because the cost of site environmental remediation exceeded the economic market value of the site after clean-up, which is a phenomenon referred to as negative value land⁴³ (Bartsch & Collaton, 1997: 3; NRTEE & CMHC, 1997a: 37; NRTEE, 2003: 5; Brooks, 2006: 234). This has been one main reason why private investors and developers are hesitant to get involved in brownfield redevelopment and prefer choosing greenfield sites that cost relatively less for site preparation.⁴⁴ In addition, brownfield redevelopment underlie a relatively higher risk in terms of real and perceived legal liabilities of contamination and decontamination, which make private investment less likely available in the beginning of the process (Bartsch & Collaton, 1997: 5; Gordon, 1997; NRTEE & CMHC, 1997a: 33, NRTEE, 2003: 6). This is why *public start-up funding* becomes crucial. In general, public funds can be in the form of government programs/grants and/or low-interest loans, which may be provided at different levels of government.

The availability of government programs and/or grants that are focused on blighted contaminated areas is widely prevalent among case study projects in the U.S., U.K., and to a certain extent in Canada.⁴⁵ The U.S. EPA Brownfield Program provides grants for environmental site assessment, clean-up, low-interest rate revolving loan fund, job training, and for research and technical assistance (Bartsch & Collaton, 1997). For the period 1995-2004, the U.S. EPA has

⁴² These funds are needed to cover the cost of site decontamination and cleanup, upgrading infrastructure networks and services, and in some cases the cost of site acquisition/purchase.

⁴³ In the case of the 245 acre Industri-plex Site in Woburn, Massachusetts (Superfund Site), the total cost of site remediation was \$90 million and the sale value of the land was \$17 million (Brooks, 2006: 234).

⁴⁴ Bartsch & Collaton (1997: 3) point out that a developer of an inner-city parcel in Cleveland (who converted an industrial warehouse site into a small neighborhood shopping center) "spent nearly \$225,000 per acre for site testing, remediation, and preparation; he estimated that similar activities for comparable project at a suburban greenfield site would have cost only \$40,000 per acre."

⁴⁵ Eleven out of fifteen U.S. case studies covered in the literature review of this research included a form of a government program or a grant that provided start-up funding (Appendix A2.1.1). All U.K. cases were supported by public start-up funds because such redevelopment projects were predominantly initiated by the public sector (Colenutt & Tansley, 1990: 14).

funded 320 brownfield assessments pilot projects with an average of approximately \$200,000 per pilot in order to support planning efforts associated with brownfield redevelopment (Lange & McNeil, 2004: 101). The American Recovery and Reinvestment Act signed on February 2009 include \$100 million in EPA brownfield grants for clean-up, revitalization, and sustainable reuse of contaminated properties.⁴⁶

In the U.K., the reuse and redevelopment of derelict sites is predominantly initiated by the public sector and through government grants like the Derelict Land Grant (Mabey, 1991: 19).⁴⁷ The English Partnerships (government's urban regeneration agency) was charged with developing a comprehensive national strategy for brownfield land and allocated over £500 million over three years to find and assemble housing sites (Adams et al, 2010: 90).

In Canada, the Quebec Revi-Sol program, introduced in 2000, provided funds up to 70% of site assessment and clean-up costs (De Sousa, 2006: 395). The Lachine Canal Revitalization Program in Montreal (1997-2002) included \$33 - \$38 million from Park Canada to revitalize the Canal for recreational and tourism facilities, \$40 million from the City of Montreal to improve municipal public spaces and roads alongside the Canal (London, 1998: 16). In Hamilton, Ontario, the "*Environmental Remediation and Site Enhancement (ERASE) Community Improvement Plan*" drafted by the City in 1997 and approved in 2001 provided grants for 50% of cost of environmental studies, development charge reduction, and for completed site remediation and other eligible costs (De Sousa, 2006: 403).⁴⁸ The "*National Brownfield Redevelopment Strategy*" (NRTEE, 2003) included policy recommendations for "*Applying Strategic Public Investment to Address Upfront Costs*" as the first action area among three and included provision for "*Grants for Qualifying Brownfield Sites*". As a result of this redevelopment strategy, several government programs including grants were established at the national, federal, and provincial/territorial levels (OCETA, 2008: 10).⁴⁹

⁴⁶ U.S. EPA website <http://epa.gov/brownfields/announcg.htm>. (accessed on August 30, 2009)

⁴⁷ The Eleven Urban Development Corporations that were established in the 1980's in the U.K. derive their funds from the central government (MacPherson, 1993: 31; Colenutt & Tansley, 1990: 35).

⁴⁸ The ERASE plan includes the following: 1. *Study Grant Program (SGP)*, 2. *Redevelopment Grant Program (RGP)*, 3. *Educational Tax Assistance Program (TAP)*, 4. *Municipal Acquisition and Partnership Program (MAPP)*, and 5. *Development Charge Reduction Program (DCR)* (Taken from City of Hamilton web site <http://www.investinhamilton.ca/brownfieldseraseprogram.asp>, accessed on June 2009).

⁴⁹ Some examples include the following:

National: FCM's Green Municipal Fund Provides grants to help cover the costs of feasibility studies and field tests that demonstrate the potential of projects to improve community sustainability, including brownfield sites.

Federal: t \$33 billion Building Canada Fund (2007) for infrastructure priorities including brownfields.

The availability of low-interest rate loans, usually provided by the public sector, works as an incentive to attract potential private developers and can be a revolving fund, or part of an interrelated government program (NRTEE, 2003: 22; Bartsch & Collaton, 1997: 83). In 2005, the Canadian Federal government provided \$150 million in a revolving fund through the Federation of Canadian Municipalities (FCM) Green Municipal Fund (GMF) for qualifying brownfield projects (OCETA, 2008: 9). More than half of the U.S. general case studies covered in the literature review included low-interest rate loans for developers (Appendix A2.1.1).

Another favourable condition is ***the availability of government funds for backing the redevelopment process in critical times***, like during recessions and the downward period of the cyclical nature of the real estate market (Gordon, 1996: 262).⁵⁰

The availability of tax incentives and other redevelopment incentives are other favorable conditions to foster brownfield redevelopment. They represent workable and flexible incentive that helps influence private investment decision. They can be in the form of reductions in, or exemption from tax liabilities that are granted for a specified amount of time. They may include property taxes as well as sales, inventory, and equipment taxes (Bartsch & Collaton, 1997: 87). The “*National Brownfield Redevelopment Strategy*” included policy recommendations for the federal and provincial governments to amend the pertinent sections of the Income Tax Act in order to allow remediation expenses to be treated as a deductible expense in computing income taxes (NRTEE, 2003: 19).⁵¹

The Existence of Self-financing Mechanism (like tax increment financing-TIF/TIEF)

The self-financing mechanism is to cover the cost of site remediation through the added value from the redevelopment process itself. Tax increment financing (TIF/TIEF) is one form of a self-

-
- *The Federal government committed long-term funding of \$3.5 billion for federal contaminated sites plus \$500 million for shared-responsibility sites in 2004 as part of the Federal Contaminated Sites Action Plan (FCSAP).*
 - *The Canada-Ontario Affordable Housing Program, created in 2005, is funding eight projects being built on cleaned up brownfield sites.*

Provincial/territorial

- *British Columbia announced (2008) the development of a Brownfield Renewal Strategy that will include grants for qualifying brownfields.*
- *Manitoba announced a \$39 million plan to clean up contaminated sites across the province. (2007)*
- *Ontario provided \$11 million in 2007 to Hamilton, Cornwall, Brantford, St. Catharines, and the University of Ottawa for community brownfield projects.*
- *Quebec launched the ClimatSol Program in 2007 to provide grants for brownfield redevelopment project with a focus on climate change.” (OCETA, 2008: 10)*

⁵⁰ In all three cases of London Docklands, Charlestown Navy Yard (Boston), and Toronto Harbourfront, the concerned public development agency needed government grants to back up their projects (Gordon, 1996).

⁵¹ This specific recommendation was not implemented. However, several provinces and municipalities have developed alternate tax-based incentive programs to encourage brownfield redevelopment (OCETA, 2008: 7).

financing mechanism that was utilized in some U.S. case studies. It is based on capturing the increment on future property tax due to redevelopment and improvements of a site (and sometimes surrounding properties) and to pay back the initial capital cost of site remediation and cleanup (Bartsch & Collaton, 1997; Schwartz, 1995). It is applied within certain districts designated by the concerned city authority for the purpose of financing the targeted upgrading and redevelopment of those areas.⁵² It has been proven to be a good example of a self-financing mechanism to recover the initial costs as well as having a continuous rolling effect by providing a revolving fund for revitalizing other blighted sites.⁵³

A similar adaptation to tax increment financing (Tax Increment Equivalent Financing/Grants-TIEF) has been considered by some Ontario municipalities like London, Thunder Bay, and Hamilton (MMAH, 2000a and 2000b). These municipalities have set up (TIEF) plans that provide property owners with grants equivalent to a deemed tax increment for a specified period of time and through the community improvement provisions of Section 28 of the Ontario Planning Act (MMAH, 2000b).

The “*National Brownfield Redevelopment Strategy*” prepared by NRTEE in 2003, included a policy recommendation “*To Implement Tax System Changes to Promote Brownfield Redevelopment.*” As a result of the Redevelopment Strategy, several provincial governments like Ontario and Alberta took the needed action to allow implementing a form of tax increment financing (TIF/TIEF) program (OCETA, 2008).⁵⁴

The findings of a study on assessing the effect of publicly assisted brownfield redevelopment on surrounding property values in two U.S. cities reveal that there is significant

⁵² In the U.S., states authorize local governments to pursue TIF program. “A local government or redevelopment agency establishes a TIF authority to define an appropriate district. Local assessors then freeze property values in the designated district in order to establish a revenue base line for the area. This base is in effect for a specific length of time, often ten to 25 years. Generally, TIF authorities must prepare a redevelopment plan that lays out proposed projects, their costs, and a timetable for activities (Bartsch & Collaton, 1997: 85). Initial capital needed for the project start-up is obtained from selling city bonds, which will be paid back from proceeds of the tax increments. Period of application of the (TIF) is usually restricted to covering the bond obligation.

⁵³ In the Minneapolis case studies, start-up funding was partly from selling bonds and (TIF) proceeds, State’s petro-fund tax, and Voluntary Investigation and Cleanup program (VIC) (Bartsch & Collaton, 1997: 97).

⁵⁴ Some of the provincial governments’ action regarding tax increment financing include the following:

- Alberta began to forego the education tax component of property taxes to allow municipalities to make use of TIF. (2005)
- Ontario amended the Planning Act to allow municipalities to offer Tax Increment Grants and make exemptions on development permit fees. (2006)
- Ontario introduced TIF on a pilot basis. (2006)”. (OCETA, 2008: 7)

increase in property values (De Sousa et al, 2009: 107).⁵⁵ These findings support the use of tax increment financing (TIF). One main obstacle facing the TIEF plan in Ontario is that it is based on providing development grants and the Ontario Municipal Act prohibits municipalities from giving grants/bonuses except for cases allowed in the Municipal Act or other Acts like Ontario Planning Act or Ontario Heritage Act.⁵⁶

Special Zoning Districts with Tax and other Redevelopment Incentives

Blighted contaminated sites within designated special zoning districts receive special government treatment by providing tax and other development incentives to attract potential developers (Bartsch & Collaton, 1997: 68). A good example in the U.S. is “Enterprise Zones” which can be applied in different functional areas including industrial, commercial, and residential areas to foster development and redevelopment as well as encourage existing industries and businesses to stay in those areas.⁵⁷ Section 28 of the Ontario Planning Act 1990 allows municipalities to designate community improvement areas and to offer grants as incentives for private sector development within such designated areas. While such grants (or bonusing) are not allowed by the Ontario Municipal Act in other areas (MMAH, 2000b: 4).

Shared Public-Private Sector Financing of Site Remediation and Preparation Costs

Given the high risks and uncertainties involved in brownfield redevelopment (usually negative value land), as well as the interrelated mutual cost-benefit attributed for both the public sector and the private sector, it is imperative that both sectors need to contribute to the financial initiative for brownfield redevelopment. This partnership leads to the sharing of costs and risks as well as collaboration to resolve the most critical obstacles of financial feasibility, especially in

⁵⁵ The study shows an increase of 11.4% in nearby housing prices in Milwaukee and 2.7% in Minneapolis. The study also concludes that public investment in Brownfield redevelopment helps cities restore and raise their property tax base on and around Brownfield sites (De Sousa et al, 2009: 103 & 107).

⁵⁶ Ontario Municipal Act [Sub-section 111(1)] “prohibits municipalities from directly or indirectly assisting any manufacturing business or other industrial or commercial enterprise through the granting of bonuses (bonusing rule)... Notwithstanding the bonusing rule, subsection 111(2) of the Municipal Act permits, with the Municipal Affairs and Housing minister’s approval, certain financial assistance for the purpose of implementing a community improvement plan that has been adopted under the provisions of Section 28 of the Planning Act. Section 28 of the Planning Act sets out the authority for municipalities to designate community improvement project areas and adopt community improvement plans... In addition ..., Section 39 of the Ontario Heritage Act allows municipalities to make grants or loans to owners of heritage designated properties. These grants or loans are to pay for all or part of the cost of alteration (i.e., restoration, renovation and repair) of the designated property, on terms and conditions established by municipal council. (MMAH, 2000b: 4-5).

⁵⁷ The Industrial Enterprise Zone in Atlanta, Georgia, aimed at retaining the existing industries and jobs in the area by offering tax exemptions over a period of twenty five years (Nelson & Milgroom, 1995: 15).

the initial stages of the process.⁵⁸ In the case of the Industri-plex site project in Woburn, Massachusetts, a Superfund National Priority List (NPL), it was only through public-private financial partnership that it became possible to implement this project.⁵⁹ This form of partnership establishes a strong base for consensus building and resolving pertinent conflicting stakeholders' values and interests, as in the case of Toronto Hydro Project (TEDCO, 1998).

Providing Mortgage Guarantees, Removing Liens & Tax Arrears for Qualifying Brownfields

Given the uncertainties and risks associated with brownfield redevelopment, provision of mortgage guarantees by the public sector will create a favorable condition for private financial institutions to provide the needed loans for brownfield redevelopment (NRTEE, 2003: 22; Heberle & Wernstedt, 2006: 489; Bartsch & Collaton, 1997: 83). According to the OCETA report (2008), CMHC began offering mortgage loan insurance to brownfield sites in Ontario in 2005 and by 2008 it was available in other provinces. This is potentially another form of public-private partnership where the public sector is sharing the financial risk with the private lender.

Removing federal and provincial liens and tax arrears for qualifying brownfields may potentially reduce upfront costs to developers and may represent a highly cost-effective approach to delivering financial assistance to brownfields (NRTEE, 2003: 21). In 2005, the “*NRTEE collaborated with the Canadian Brownfields Network (CBN) to develop A National Framework for Encouraging Redevelopment of Qualifying Brownfields through the Removal of Crown Liens and Tax Arrears*” (OCETA, 2008: 8).⁶⁰

2.2.2 The Role of Government Authorities, the Private Sector, and Community Residents

The main stakeholders in the brownfield redevelopment process include three main groups including the project developer and his team of consultants, the public approval authorities and local community residents and groups. The project approval process is the organizing element among stakeholders. The main favourable circumstances in this regard are as follows:

⁵⁸ In general, economic feasibility framework by the developer is not sufficient to resolve the problem of brownfield redevelopment, because it does not address the social and environmental costs as well as the economic costs-benefits of the public sector and the local community. A more realistic feasibility framework should consider the social, economic, and environmental cost-benefit as viewed by multi-stakeholders (public, private & community).

⁵⁹ This partnership was represented by establishing a third party Custodial Trust that assumed property ownership with the beneficiaries being USEPA, City of Woburn, and potentially responsible parties (PRP's) (Brooks, 2006).

⁶⁰ Little progress has been made in this regard and according to the OCETA report, “*The Federal government and several provinces will remove tax liens from contaminated sites on a case-by-case basis, however only the Province of Ontario has a formal process in place to remove crown liens and tax arrears from brownfield properties that have failed a tax sale*” (OCETA, 2008).

- *The existence of a specialized government (or public-private) authority that is directly responsible for initiating action on blighted sites (like Toronto Economic Development Corporation-TEDCO)*
- *Collaboration and partnership among the different level government agencies (Public-Public)*
- *Collaboration and partnership between the public sector and the private sector (Public-Private)*
- *Collaboration and partnership among the public sector, private sector and community residents/groups (Public-Private-Community)*
- *Commitment of stakeholders to project success*
- *Cases of owner/developer facilitate decision making & the overall process*

The existence of a specialized government authority that is directly responsible for initiating action on brownfield redevelopment appears to be instrumental in fostering the process. The importance of this role arises from the high economic risk and legal liabilities that characterize brownfield redevelopment, which make private developers and investors more hesitant in taking on redevelopment initiatives by themselves (Bartsch & Collaton, 1997: 3; Meyer et al, 1995: 21; Heberle & Wernstedt, 2006: 486; NRTEE, 2003: 25; Adams et al, 2010: 76). In the context of brownfield policy development, Adams et al (2010: 76) offer “*a three-stage ‘policy maturity’ model that involves, first, clearly grasping and understanding the brownfield problem; secondly, recognizing the potential it contains and securing political (government) commitment to action; and, thirdly, generating engagement from the private sector*”.⁶¹ This policy framework requires political/government initiative and commitment to action, including application of resources, in order to attract private sector engagement in brownfield redevelopment. These tasks are better achieved through a public (or public-private) development corporation rather than through the normal municipal agencies.

In the Canadian context, the City of Toronto Economic Development Corporation (TEDCO) has been responsible for fostering economic development of Toronto Port Lands and was the initiator or a partner in the redevelopment of several projects like Toronto Hydro Service Centre (TEDCO, 1998).

In the United States, almost every major city has its own development or redevelopment authority that is responsible for urban revitalization and redevelopment including brownfields.⁶²

⁶¹ The three-stage policy maturity model was proposed in a comparative study of brownfield development approaches in North America and Britain. In reference to the British experience, they point out that “*the real test of its ‘brownfield first’ approach was not its apparent commitment in principle, but its willingness to devote powers and resources to effective intervention in the land market*” (Adams et al, 2010: 90).

⁶² In seven out of fifteen reviewed U.S. case studies, a public development authority was directly responsible for initiating site remediation and a public-private corporation was directly responsible in one case study (Appendix A2.1.2). The City of Minneapolis Community Development Agency (MCDA) is a good example of a public

In the U.K., the central government established eleven Urban Development Corporations (UDC's) during the 1980's that were responsible for inner city regeneration/redevelopment of declining areas and derelict lands (Colenutt & Tansley, 1990: 14).⁶³ In reference to brownfield redevelopment in England, Adams et al (2010: 90) outline that the “*new interventionist approach involved ‘new strategic role’ for English Partnerships (the government’s urban regeneration agency) to find and assemble land, especially brownfield and publicly owned land, for sustainable development*”. These indicate the importance of public development corporations and their direct commitment in brownfield redevelopment.

Collaboration and partnership among the various stakeholders may foster agreement and commitment to achieve stakeholders’ objectives.⁶⁴ This was represented by the collaboration among public authorities at various levels (**public-public**), and with private sector developers, organizations and institutions (**public-private**), as well as with local community residents and groups (**public-private-community**).⁶⁵ The NRTEE-2003 “*National Brownfield Redevelopment Strategy*” included a policy recommendation: “*that all levels of governments cooperate with the private sector and not-for-profit sectors to establish a National Brownfield Association to*

authority in facilitating the initial stages of brownfield site purchase, site clean-up and environmental remediation, as well as securing private developers and tenants in some cases (Bartsch and Collaton, 1997: 113-117).

⁶³ The passing of the Local Government, Planning and Land Act in 1980 gave powers to Ministers to declare Urban Development Corporations (UDC's). The jurisdictional powers of Urban Development Corporations (UDC's) are derived from the central government of Britain and not from local or regional municipalities. The main objective of (UDC's) is to “*regenerate their own ‘Urban Development Areas-UDA’ by taking over local authority planning powers while receiving direct Government grant for land purchase, reclamation and other means of making the UDA more attractive to private developers*”. Those UDC's include:

- First Generation 1981
 - London Docklands Development Corporation (LDDC)
 - Merseyside Development Corporation (MDC)
- Second Generation 1987
 - Trafford Park Development Corporation (TPDC)
 - Black County Development Corporation (BCDC)
 - Teesside Development Corporation (TDC)
 - Tyne and Wear Development Corporation (TWDC)
 - Cardiff Bay Development Corporation (CBDC)
- Third Generation 1988-89
 - Central Manchester Development Corporation (CMDC)
 - Leeds Development Corporation (LDC)
 - Sheffield Development Corporation (SDC)
 - Bristol Development Corporation (BDC) (Colenutt & Tansley, 1990: 14)

⁶⁴ Long & Arnold (1995: 6) outline that “*partnerships are voluntary collaborations between two or more organizations with jointly-defined agenda focused on a discrete, attainable, and potentially measurable goal.*” In the context of achieving environmental goals, Long & Arnold define environmental partnerships as “*voluntary, jointly-defined activities and decision-making processes among corporate, non-profit, and agency organizations that aim to improve environmental quality or natural resource utilization.*”

⁶⁵ Stakeholders’ collaboration and partnership were key elements for successful redevelopment in many cases including: the Cooksville Quarry Site in Mississauga, the Pacific Place (former Expo 86 site) in Vancouver, B.C. (NRTEE & CMHC, 1997a: 63-67), as well as in the transformation of the U.S. Repeating Arms complex in New Haven, Connecticut into a science park (Bartsch & Collaton, 1997: 102).

coordinate efforts to build Canadian capacity to undertake the redevelopment of brownfields” (NRTEE, 2003: 31). The aim of stakeholders’ collaboration and partnership is basically to achieve common goals and objectives. Partnership groups may include the public sector, private sector, non-for-profit, and community organizations. Based on the common goals and objectives, stakeholders’ collaboration and partnership may be represented in various forms including environmental, economic/financial, and socio-political partnerships.

Public-Public Collaboration and Partnership

Collaboration and partnership among the different levels of government authorities (***public-public***) was essential in expediting the redevelopment process in many case study projects (Appendix A2.1.2). In the Lachine Canal Revitalization Program in Montreal, there was collaboration and partnership among the federal, provincial, and city authorities.⁶⁶ The National Contaminated Sites Remediation Program (NCSRP), approved by the Canadian Council of Ministers of Environment (CCME), was a 50/50 cost-shared federal-provincial program, which ran for five years (1990-1995) (NRTEE, 1997d: 20).⁶⁷ According to the OCETA report (2008:11), *“the Federal government committed long-term funding of \$3.5 billion for federal contaminated sites plus \$500 million for shared-responsibility sites in 2004 as part of the Federal Contaminated Sites Action Plan (FCSAP)...”*.⁶⁸

In the U.S. case of the Soo Line Railyard in Minneapolis, the Minnesota Pollution Control Agency (MPCA) and the regional office of the federal Environmental Protection Agency (EPA), signed a memorandum of understanding that exempted new purchasers of cleaned-up sites from past contamination liability once the State authority approved the cleanup process (Bartsch and Collaton, 1997: 115).

Public-Private and Public-Private-Community Collaboration and Partnerships

Collaboration and partnership among public authorities and private sector developers, investors, institutions (***public-private***), as well as with local community residents and groups (***public-private-community***) created stakeholders’ agreement and determination to achieve stated

⁶⁶ The revitalization Program included an investment of \$33 - \$38 million by Parks Canada, \$44 million in public works improvements by the City of Montreal, as well as a long-standing municipal program to subsidize industrial development (PROCIM) and a new municipal-provincial program to help fund decontamination of brownfields (London, 1998: 16).

⁶⁷ The program would provide approximately \$200 million for the actual clean-up of priority sites, \$50 million for the development of new technologies. In addition, \$25 million was set aside by Environment Canada to assist other federal agencies in conducting site inventories (NRTEE, 1997d).

⁶⁸ In addition *“The Province of Ontario provided \$11 million in 2007 to Hamilton, Cornwall, Brantford, St. Catharine, and the University of Ottawa for community brownfield projects”* (OCETA, 2008).

objectives. The Hamilton ERASE Plan that was provincially approved in 2001 was a form of public-private partnership which included several programs.⁶⁹ The NRTEE National Brownfield Redevelopment Strategy (2003:31) included a policy recommendation “*that all levels of government cooperate with the private and not-for-profit sectors to establish a National Brownfield Association to coordinate efforts to build Canadian capacity to undertake the redevelopment of brownfields.*” The OCETA report (2008: 17) that provided impact evaluation of the NRTEE-2003 policy recommendations mentioned that “*OCETA, in collaboration with the Province of Ontario, has worked with the private sector and municipalities to develop the Ontario Brownfields Redevelopment Toolbox (2004) and the Ontario Service Station Redevelopment Framework (to be made available in 2008) to provide municipalities and other stakeholders with the knowledge needed to clean up and redevelop brownfields.*”

In the case of the Leeds-Liverpool Canal Corridor Project (U.K.), the Strategic Development Initiative (SDI) was a good example of public-private-community collaboration and partnership. The objective was to achieve economic development through tourism initiatives and environmental initiatives by revitalizing the canal environment and the derelict lands along its sides, as well as a socioeconomic upgrading initiative through training programs for local residents in the region (Tattersall, 1993: 52-56).⁷⁰

In the case of the Industri-plex site project in Woburn, Massachusetts, it was only through public-private-community collaboration and partnership that made it possible to implement this project.⁷¹ USEPA reached an agreement for a site clean-up plan with twenty two potentially responsible parties (PRP’s) for contamination, which included current and former property owners. USEPA allowed the original developer to contribute his property in exchange for relief from legal liability for the clean-up. A third party Custodial Trust was established to take site

⁶⁹ The programs included “*annual grants to brownfield owners to pay for remediation and other eligible costs using tax increment financing; a study grant for landowners or purchasers covering up to 50 percent of environmental studies; a rebate on planning and development fees; a marketing/database program for the ERASE program; and a municipal property acquisition, investment, and partnership program that helps promote public/private partnerships and pilot projects*” (De Sousa, 2006: 403). The results in the first year of the ERASE Plan included the redevelopment of 11.3 acres of industrial land and the leveraging of \$15 million in private investments through \$1 million in city grants (NRTEE, 2003: 14).

⁷⁰ Training programs for local residents were to bridge the educational skill gap and to improve access to the newly generated jobs by the development program. Programs included training for companies, future skills, new and small business, and training for priority groups (Tattersall, 1993).

⁷¹ The project ranked the 5th most hazardous site on the USEPA Superfund National Priority List (NPL). Not knowing the nature of environmental contamination & required remediation cost, the original developer was unable to proceed with redevelopment and the project came to a halt. There was a \$400 million civil suit against main polluting companies filed by community residents that were severely affected by contamination (Brooks, 2006).

ownership from the original developer. The beneficiaries of the Custodial Trust were the City of Woburn, the Remedial Trust (PRP's) and USEPA. Also, the Custodial Trust pursued an alliance with the local community, which was empowered by a clear understanding of their options. This alliance was key to secure state and federal support and funding for the major new infrastructure projects (Brooks, 2006: 235).⁷²

Stakeholders' commitment to project success is crucial, especially at difficult times that require perseverance and determination to find solutions for emerging problems until experiencing final success. This has been the case whether projects were publicly or privately sponsored. In the case of the Fort Worth Stockyards (Texas), the Stockyard Area Restoration Committee, together with the city, was keen about solving the main problems of crime by establishing a police station within the Stockyard area and through a public-private partnership (Bright et al, 1995: 141). In the case of the Industri-plex site in Woburn, Massachusetts, the USEPA, the City of Woburn, the potentially responsible parties (PRP's) for contamination as well as the local community, were all committed to project success (Brooks 2006: 231).

The **owner-developer** situation facilitated site redevelopment in many cases. This was because complex decision-making is within one main stakeholder domain and thus reduces conflicts of objectives and visions.⁷³ In the case of the Cooksville Quarry project in Mississauga, the owner-developer was able to overcome the complex environmental and physical problems and to develop the site into a residential community without government funding.⁷⁴

2.2.3 Environmental Concerns & Legal Liability of Contaminated Sites Cleanup Cost

Not addressing environmental contamination and required clean-up plan in the beginning may result in underestimating the cost of site remediation and hence affecting project financial feasibility and viability.⁷⁵ The main favourable circumstances in this regard are as follows:

- ***Addressing environmental contamination problems and remediation in the beginning of the process and to prepare an appropriate site remediation plan.***

⁷² The Custodial Trust helped secure \$50 million in public capital for three major infrastructure projects. This level of public investment created significant property value as well as lifted the market stigma, which resulted in attracting potential private developers and investors (Brooks, 2006: 235).

⁷³ In the case of the BF Goodrich Plants (Akron, Ohio), the owners managed to redevelop the rubber tire plant into a business park without government assistance. The owners spent \$4 million for site remediation and cleanup (38 acres/15.2 hectares) in addition to building renovation (Bartsch and Collaton, 1997).

⁷⁴ Interview with the project developer (Key Participants' Interviews, 2000).

⁷⁵ In the case of the West Don Lands (Ataratiri Project), the City of Toronto expropriated the land (80 acres) in 1988 for revitalization and prepared the physical plan and urban design scheme without having environmental investigation. After realizing the magnitude of environmental contamination/flooding problems and implied remediation costs, the province cancelled the project in 1992 (Allester, 1992).

- *A clear definition of legal liability for previous contamination, cleanup cost, and future liabilities after decontamination with partial relief of liability*
- *Conditional lift of future liability on new purchasers of al-ready cleaned-up sites.*
- *Ensuring a consistent approval process*
- *Developing new guidelines and standards that are based on site risk assessment and risk management reduced the cost of site remediation and cleanup.*
- *Establishing an inventory of blighted sites within the city can help in planning for the problem as a whole and thus utilizing resource more efficiently.*
- *Contaminated sites that are within governmental inventory priority list may have access to government funds and assistance*
- *Availability of environmental liability insurance to cap site decontamination cost as well as resolving uncertainty of future liabilities of site contamination*

Clear Definition of Legal Liability for Environmental Contamination

The clear definition of legal liability for environmental contamination and clean-up cost made it easy for public agencies in back tracking previous polluters and recovering contamination clean-up costs.⁷⁶ In Canada and the United States, legal liability for contaminated sites clean-up cost is based on the principle of “polluters pay” with a strict liability, jointly and severally (NRTEE, 2003: 6; NRTEE & CMHC, 1997: 20; Bartsch & Collaton, 1997: 5; Howland, 2007: 92). However, the principle is applied differently.

In the United States, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund, 1980) is the most significant federal statute, under which present and previous owners and operators have strict liability (jointly and severally) for the costs of cleaning releases of hazardous substances⁷⁷ (Bartsch & Collaton, 1997: 5-7). In some ways, strict liability, jointly and severally, made it easy to recover clean-up costs from previous known polluters (deep pockets); at the same time, it had negative impacts on brownfield redevelopment in terms of increasing legal liability risks and lowering the perceived investment returns (Howland, 2007: 92; Heberle & Wernstedt, 2006: 480; NRTEE & CMHC, 1997: 26;

⁷⁶ In the case of the Uniroyal Tire Factory (Commerce, California), the City development agency purchased the site (35 acres) to be redeveloped by a private developer as a mixed-use commercial, hotel and offices. The City agency managed to retrieve some of the decontamination costs (\$3 million) from the previous owner (Uniroyal) (Bartsch & Collaton, 1997: 105).

⁷⁷ The (CERCLA-Superfund) was first enacted in 1980 and based on “polluter pays” with strict liability jointly or severally and including any person or entity that is related to the contaminated site (previous and current owners, purchasers, operators, developers and financial institutions engaged in their redevelopment). “*Strict liability*” means it does not require the demonstration of wrong doing on part of the polluter (Howland, 2007: 92; Bartsch & Collaton, 1997: 5). “*Jointly and severally*” means that government can pursue reimbursement or clean up from one or all parties, even remotely associated with the pollution. The Act was amended in 1986 to exempt new property owners “*who did not know and had no reason to know*” of any contamination at the site. Another exemption covered banking institutions with limited involvement in the property, either as creditors or as owners following foreclosure (Bartsch & Collaton, 1997: 5-7).

Meyer et al, 1995: 84). This made such redevelopment areas less attractive to potential developers and investors than greenfield locations⁷⁸ (Alberini et al, 2005: 349; Bartsch & Collaton, 1997: 3 & 31). Throughout the 1990s, U.S. federal legislation and regulatory reforms aimed at reducing the barriers imposed by CERCLA and EPA Brownfields Program had supported environmental assessment and remediation of numerous pilot projects that were based on competitive application (Heberle, 2006: 481; Bartsch & Collaton, 1997: 32). As a relief from the stringent environmental regulation, EPA relaxed the notion that contaminated sites should be cleaned to their natural condition and the less seriously contaminated sites were removed from the National Priority List (NPL). Also, they relinquished authority over the clean-up standards of sites participating in many state-level non-Superfund Voluntary Cleanup Programs (VCP) (Howland, 2007: 92).⁷⁹ Economic viability was established as a key factor in the granting of federal EPA brownfield pilot grant. With economic development becoming a goal of brownfield clean-up, the Small Business Liability Relief and Brownfields Act signed in 2002 expanded both liability protection and funding (Heberle & Wernstedt, 2006: 481).

In Canada, brownfield liability legislation is mostly within provincial jurisdiction and guided by the “*Canadian Council of Ministers of the Environment (CCME) Principles on Contaminated Site Liability*” (NRTEE & CMHC, 1997a: 20; NRTEE, 2003: 11; CCME, 2006: 4). The original CCME report, including thirteen principles, was first approved by Council in the spring of 1993 (NRTEE & CMHC, 1997a: 20). The CCME undertook a study in 2003 and it was concluded that “*the CCME (13) principles, although not uniformly adopted across Canada, continued to be appropriate for addressing contaminated sites*” and CCME added a fourteenth

⁷⁸ In a study on the role of liability, regulation and economic incentives in brownfield redevelopment and from a survey of 293 international developers, Alberini (2005: 349) found that contaminated sites are generally less desirable to developers as compared to pristine sites. The results of the survey indicate that only 22.23% of all developers would prefer a brownfield site over a pristine site when there are no policy incentives and without liability relief and flexible clean-up standards. This percentage would increase to 27.33% and 33.10% with 10% and 20% financial assistance respectively. With liability relief alone, this percentage would increase to 33.67% and with flexible clean-up standards alone this percentage would be 27.64%. However, with a combination of 20% financial assistance, liability relief, and flexible clean-up standards, the percentage of developers that would prefer selecting a brownfield site over a pristine site would increase to 53.98% (Alberini, 2005: 346).

⁷⁹ “*Forty eight states have authorized VCP’s and several states have signed memoranda of agreement with the EPA to assume authority over clean-up standards. The general framework of most state programs includes: (1) relaxed liability for purchases of contaminated properties in which the owner is not responsible for the contamination, (2) increased reliance on voluntary cleanup rather than government enforcement, (3) more flexible cleanup standards allowing parcels to be cleaned to standards appropriate to future use, and (4) the provision of financial incentives*” (Howland, 2007: 92).

principle addressing “*Transfer of Liability*” (CCME, 2006: 3).⁸⁰ The CCME-2006 report endorses the principles of “*Polluter Pays*” and “*Fairness*” with the view that liability should be allocated on the basis of relative fault based on the particular circumstances, although it does retain the concept of joint and several liability where the allocation process fails.

New provincial legislation was introduced and directed at promoting brownfield redevelopment by addressing key barriers to redevelopment like Ontario’s Brownfield Statute Law Amendment Act, 2001 and Quebec amendment of the Environmental Quality Act in 2003. The Ontario brownfield legislation was designed “*to encourage brownfield redevelopment by clarifying environmental regulatory liability and providing municipalities with more flexibility in planning and financing*” (NRTEE, 2003: 12).⁸¹ Ontario’s Regulation 153/04 provided protection against regulatory liability through the filing of a Record of Site Condition (OCETA, 2008: 12). Quebec amended the “*Environmental Quality Act*” in 2003 to clarify regulatory liability allocation (CCME, 2006: 12; OCETA, 2008: 12).

In the U.K., there is strict liability on responsible parties, but not retroactive as it is in the U.S. and Canada, and the law takes into consideration the financial hardship of responsible parties, which implies that the government shares part of the cost at the end (Meyer et al, 1995). Also, the notion of public-private responsibility for contamination clean-up is a major characteristic of the liability law in the European Union (EU) (Meyer et al, 1995). However, the other details of liability issues are differently enacted in the U.K. (Meyer et al, 1995; Page,1997).

⁸⁰ These Principles were part of CCME document entitled “*Recommended Principles on Contaminated Sites Liability - 2006*” which incorporates and replaced “*Contaminated Site Liability Report - Recommended Principles for Consistent Approach Across Canada - 1993*” (CCME, 2006). Briefly, the CCME principles include: 1) *Polluter pays*; 2) *Fairness*; 3) *Openness, accessibility, and participation characterizing the site remediation process*; 4) *Beneficiary pays*; 5) *Sustainable development*; 6) *Conditional exemptions of lenders receivers, receiver-managers, and trustees*; 7) *Recovery of public funds from parties responsible for contamination*; 8) *Four-stage process to discourage excessive liability litigation and to promote alternative dispute resolution including voluntary, mediated, or directed allocation, with joint and several liability as the last resort*; 9) *Liability allocation factors*; 10) *Alternative Dispute Resolution (ADR) procedures including a four-step allocation process including Voluntary, Mediated, and Directed, with default Joint & Several liability as last resolution*; 11) *Contaminated sites designation based on risk to human health and extent of environmental risk*; 12) *Certificate of compliance and exemption from future liability*; 13) *Benchmark standards on a site-specific basis*; and 14) *Transfer of regulatory environmental liability* (CCME, 2006: 4-12).

⁸¹ Ontario’s “*Brownfields Statute Law Amendment Act, 2001*” creates a new regime for addressing regulatory liability. “*The legislation clarifies and limits environmental liability, providing greater certainty for those involved in redevelopment. Clear rules are legislated for: • site assessment and cleanup standards, • five-year liability protection from environmental orders for municipalities, secured creditors, receivers, trustees in bankruptcy, fiduciaries and property investigators, • liability protection from environmental orders for owners who follow the prescribed site assessment procedures and file a record-of-site condition stating that a site meets the appropriate standards, • quality assurance through mandatory use of certified site-cleaning professionals, mandatory filing of a record-of-site condition to a publicly accessible registry, acceptance of risk assessments by the Ministries of Environment and Energy, and an enhanced auditing process*” (NRTEE, 2003: 12).

Environmental Remediation Guidelines Based on Site Specific Risk Assessment (SSRA)

Developing environmental remediation guidelines and standards that are based on site risk assessment and risk management made the process more flexible and effectively reduced the cost of site remediation and cleanup⁸² (CMHC, 2005; Alberini et al, 2005; NRTEE & CMHC, 1997a: 67; Bartsch & Collaton, 1997: 10). In the U.S., and in order to remove barriers of the environmental act (CERCLA and its 1986 re-authorization), the EPA relaxed the notion that contaminated sites should be cleaned to their natural condition and relinquished authority over the cleanup standards for sites participating in many state-level non-Superfund Voluntary Cleanup Programs (Howland, 2007: 92). The MOEE (1997) "*Guideline for Use at Contaminated Sites in Ontario*" outlines three approaches to site remediation and restoration, which may be used for contaminated sites:

- The **background approach** involves the restoration of a site to naturally occurring background conditions, or ambient soil concentrations.
- The **generic approach**⁸³ involves the use of generic soil and groundwater criteria, which are based on the effect of a contaminant on human health and/or the environment.
- The **site-specific risk assessment approach** (SSRA) provides a process and administrative mechanism to develop and use criteria based on environmental and human health at a specific site (MOEE, 1997: 10-11).

On a relative scale, the cost of site remediation is expected to be highest in the background approach than the others because of being complete decontamination cleanup. And the SSRA is the most cost-effective approach especially in heavily contaminated sites because it is aimed at identifying risks to human health and the environment and managing those risks by protecting humans from direct contact with contaminants (NRTEE & CMHC, 1997: 30-31).⁸⁴ The NRTEE "*National Brownfield Redevelopment Strategy*" includes a recommendation to "*apply site-specific assessment and approach regime*" (NRTEE, 2003: 18). The CCME "*Recommended Principles on Contaminated Sites Liability*" included the use of benchmarks that will allow remediation plans or orders to be tailored on a site-specific basis (CCME, 2006: 11).

⁸² The site specific risk assessment (SSRA) and risk management approach for site remediation proved to be cost effective in many cases like in transforming the former Expo 86 Site into a mixed use development including residential, parks, schools, office and retail space (NRTEE & CMHC, 1997a: 67), as well as in the Gooderham & Worts project in Toronto (see Chapter Six for more details on G&W project).

⁸³ The generic approach offers special restoration criteria options to match certain site attributes like" (i) *land use (agricultural, residential/parkland, industrial/commercial)*; (ii) *restoration of groundwater quality (potable/non-potable)*; (iii) *depth of soil restoration*; (iv) *soil texture*" (MOE, 1997: 11).

⁸⁴ The case of the West Don Lands (Ataratiri project, 1988-1992) in Toronto is a good example of how MOE regulations at that time requiring complete cleanup to generic numeric criteria implied a cost obstacle that halted the project (NRTEE & CMHC, 1997:30). Another cost factor was mitigation measures for flooding potential.

Having flexible clean-up standards also may attract more developers to brownfield redevelopment instead of greenfield redevelopment (Alberini et al, 2005: 346).⁸⁵

Conditional Lift of Future Liability on New Purchasers of already Cleaned-up Sites

Another favourable circumstance for brownfield redevelopment is the conditional lift of future liability on new purchasers of already cleaned-up sites that gained approval from the concerned authority.⁸⁶ This reduces uncertainty of potential future liabilities and expedites the site remediation approval process. The NRTEE-2003 “*National Brownfield Redevelopment Strategy*” included a policy recommendation “*that provinces and territories establish legislation providing for clear and unequivocal termination of all on-site and off-site regulatory liabilities upon issuance of regulatory approval of remediation, subject only to specified reopeners or fraud*” (NRTEE, 2003: 26). The National Strategy also included another policy recommendation to “*provide for termination of civil liability after a limitation period.*” In response to the National Brownfield Redevelopment Strategy, Ontario’s Regulation 153/04 provides protection against regulatory liability through the filing of a Record of Site Condition (OCETA, 2008: 12). In addition, this condition of future liability relief may better attract potential developers/investors to brownfield redevelopment instead of Greenfield development (Alberini et al, 2005: 346).⁸⁷

Brownfield Inventory List

High risk contaminated sites that are within a government inventory list have the opportunity for accessing public cleanup funds and assistance. In the U.S. the federal National Priority List (NPL), identified by the EPA, includes 1300 hazardous waste sites that are eligible for federal cleanup funds under the CERCLA-Superfund (Bartsch & Collaton, 1997).⁸⁸ In Canada, the National Contaminated Site Remediation Program (NCSRP) was a five-year (1989-1995) \$250 million program initiated by the CCME with three primary objectives:

- *To identify high-risk contaminated sites and carry out remedial action through a “polluter pays” principle*

⁸⁵ The results of a study on the role of liability, regulation and economic incentives in brownfield redevelopment, reveal that the probability of developers selecting a contaminated site vis-à-vis a pristine site would increase from 22.23% for no policy incentive to 27.64% when flexible cleanup standards are employed (Alberini et al, 2005: 346).

⁸⁶ In the cases of the Soo Line Railyard and Wilensky Salvage Yard (Minneapolis, Minnesota), a memorandum was signed between EPA’s Regional Division and Minnesota Pollution Control Agency (MPCA) that exempts purchasers of cleaned-up sites from past contamination liability at a federal level provided that State Agency has issued a “certificate of completion”, “no further action letter”, or “no association letter” (Bartsch & Collaton, 1997).

⁸⁷ The results of a study on the role of liability, regulation and economic incentives in brownfield redevelopment, reveal that the probability of developers selecting a contaminated site vis-à-vis a pristine site would increase from 22.23% (for no policy incentive) to 33.67% when there is liability relief (Alberini et al, 2005: 346).

⁸⁸ In addition to the (NPL), the States have identified 70,000 hazardous sites (that fall below the federal threshold), and targeting 22,000 of those sites for remediation within Voluntary Cleanup Programs (Bartsch & Collaton, 1997).

- *To provide resources to clean “orphaned”⁸⁹ high-risk sites; and*
- *To work with private industry to develop and demonstrate new and innovative remediation technologies⁹⁰* (NRTEE, 1997b: 34).

In the U.K., while S.143 of the Environmental Protection Act (1990) requires preparation of public registers of contaminated land, it was found politically unacceptable and controversial because of the belief that listed properties will decrease in value leading to more decline (Page, 1997: 172; Meyer et al, 1995: 142-143).⁹¹ However, establishing such an inventory was found essential for planning purposes, given the evolving definition of brownfield sites as previously developed land including various conditions of vacant and derelict land, which was the basis for establishing the National Land Use Database (NLUD) in England and the Scottish Vacant and Derelict Land Survey (SVDLS) (Adams et al: 81).⁹²

Having an inventory of brownfield sites including locations, may allow for a more comprehensive area-wide approach to the redevelopment process where multiple sites are simultaneously considered instead of a site by site redevelopment approach. This approach has several advantages in terms of potential coordinated redevelopment. Heberle & Wernstedt (2006: 493) outline that in the context of numerous small brownfield properties:

“the linkage of brownfields and sustainable practice may require that practitioners move beyond a property-by-property approach and place brownfields in a larger-scale endeavour that seeks to revitalize multiple properties across a wider area of the community. Rather than leave brownfields redevelopment to a tyranny of small decisions, an area-wide approach that explicitly treats multiple brownfield properties as a system and tackles them en masse rather than each in isolation could improve the prospects for community revitalization in several important ways.”⁹³

⁸⁹ *“An orphan contaminated site is one for which viable responsible parties cannot be found. The responsible parties may have gone bankrupt, left the country, or simply be unwilling or unable to accept responsibility, but the bottom line is that they are not available to clean up a site at a particular point in time”* (NRTEE, 1997a: 34).

⁹⁰ The costs of cleaning orphan sites were to be shared between Environment Canada and provincial environment departments. The federal government committed \$100 million to this program, divided among provinces and territories. Also, for developing new methodologies to remediate contaminated sites, the federal government contributed \$25 million to be matched by the provinces (NRTEE, 1997b: 34).

⁹¹ In 1994 the U.K. (DOE) published the *“Framework for Contaminated Land”* proposing a legislation to strengthen the national framework for remedial and regulatory action and to repeal (S.143) of the 1990 Act (Meyer et al, 1995:143).

⁹² The NLUD was launched in 1998 and updated in 2001, which categorizes entries under five headings including: *“• previously developed land which is now vacant; • Vacant buildings; • Derelict land and buildings; • Land or buildings currently in use and allocated in the local plan and/or having planning permission; and • Land or buildings currently in use where it is known there is potential for redevelopment (but the sites do not have any plan allocation or planning permission)”* (Adams et al, 2010: 81).

⁹³ Multiple brownfield site redevelopment may improve prospects of community revitalization in the following ways: *• Coordinated fashion redevelopment can be financially appealing, • May allow larger dollar investments in cleanup & redevelopment which can take advantage of economies of scale in infrastructure for redevelopment or of risk-sharing opportunities across multiple sites, • may make environmental insurance financially viable, • Area-wide redevelopment of distressed areas can continue to benefit from TIF* (Heberle & Wernstedt, 2006).

The CCME “*Recommended Principles on Contaminated Sites Liability*” included that discretion should be retained by member governments to designate contaminated sites with classification (high, medium or low) based on risk to human health and extent of environmental risk (CCME, 2006: 10). Regarding federally owned contaminated sites, the management policy issued by the federal Treasury Board in 2002, requires all federal departments and agencies (with a few exceptions) to “*address the most-affected sites first – priority determined by the Canadian Council of Ministers of the Environment (CCME)’s National Classification System*” (NRTEE, 2003: 16). The CCME recommended principle and Treasury Board management policy requirement imply a need to prepare an inventory of contaminated sites.

Environmental Liability Insurance

The provision of environmental liability insurance at acceptable terms to developers was crucial in overcoming the problems of risks and uncertainties of project financial feasibility for brownfield redevelopment (Meyer and Lyons, 2000: 53; NRTEE & CMHC, 1997:49, Heberle & Wernstedt, 2005: 489; CMHC, 2005). This insurance also controlled the problem of real and perceived legal liabilities of brownfield redevelopment.⁹⁴ The coverage of environmental liability insurance may include protection against impact on human health and ecosystem damage due to on-site contamination, capping site remediation cost, covering future liabilities of unknown site contamination.⁹⁵ Within the private sector, insurance companies have expanded their insurance and risk management resources for brownfield projects (OCETA, 2008: 14).

2.2.4 Project Marketability

The key element in marketing brownfield site reuse and redevelopment is to identify existing and potential resources within the site as well as its surrounding and inner city contexts including location. The main favourable circumstances are briefly as follows:

⁹⁴ In a study on brownfields regeneration in the U.S., Heberle & Wernstedt (2006: 489) propose that “*environmental insurance is useful in closing a brownfield redevelopment deal.*” In a study covering thirteen special private sector firms involved in brownfield redevelopment in the U.S., Meyer & Lyons (2000:53) found that twelve firms rated “*the availability of insurance as a major tool in risk management, with 5 of the 10 actively redeveloping brownfields describing the policies as ‘essential’*”.

⁹⁵ Meyer and Lyons (2000: 53) outline three major classes of insurance coverage: “*(i) environmental liability coverage, for professionals and owner-operators, that protects against claims for ecosystem damage, health problems encountered by neighbors or workers, and loss of property value by nearby owners due to on-site contamination or its discovery; (ii) cleanup “cost-cap” or “stop-loss” coverage that sets a maximum exposure for mitigation expense for a brownfield redevelopment project by providing up to 200% of the original estimated cleanup cost in insurance coverage; and (iii) prospective liability and “reopener” coverage, addressing future claims for damage due to contaminants remaining in place during the course of a redevelopment or due to changes in cleanup standards, leading regulators to reconsider cleanups which they had previously approved*”.

- *Availability of potential resources within the site that may attract investors/ developers (e.g., natural/cultural heritage, riverfront/scenic value, existing facilities/networks)*
- *Proximity to the city core functions (CBD) and its amenities*
- *Accessibility to major transportation routes (e.g., expressways) as well as availability of multiple transport modes*
- *Identifying an existing demand for certain uses, competitive growing functions, or renewed economic activity in the area*
- *Availability and identifying linkages with existing institutions, interrelated development (e.g., university or an industry)*
- *Securing developer(s) and tenants in the early stages together with the site cleanup process complete the redevelopment and marketing package*

Existing and Potential Resources within the Site & Its Surrounding Inner City Contexts

Blighted industrial sites are usually within favourable inner city locations and may occupy relatively large areas of land, which is a rare and valuable asset in such locations. Also, such industrial sites are sometimes located at waterfront locations for various reasons, including water transportation, which give such sites natural settings of unique ecological and scenic values.⁹⁶

The site and area resources may vary in type and value - both quantitatively and qualitatively. The marketing theme revolves around capturing the characteristic values of the site and its context in an overall reuse and redevelopment package in order to attract potential stakeholders for a potentially viable and feasible redevelopment. Site resources may include existing buildings and facilities that can be adaptively reused.⁹⁷ These sites may also have historical, architectural, cultural and/or natural heritage values that can be significant locally, provincially, and/or nationally (sometimes internationally).⁹⁸ In such cases, heritage preservation and conservation become a central objective and theme within the planning and design process (Blick & Gauthier, 2007: 46). Preserving building and city heritage reflects the identity of a place and conveys some aspects of its evolution over time. Also, preserving heritage values can positively impact the tourism industry especially within inner city areas, and this adds an economic component to heritage planning.

⁹⁶ In the U.K., the whole Tyne and Wear redevelopment areas along the sides of the two rivers are appealing locations and natural settings (MacPherson, 1993). Similarly, the Lachine Canal redevelopment area in Montreal represents an existing natural setting to be utilized for tourism and recreational. In addition, the historical site and buildings represent a cultural heritage resource to be utilized for the same functional theme (London, 1998).

⁹⁷ In the case of the Deptford Shipyard (Sunderland, U.K.), a crane manufacturer purchased the largest part of the site to reuse the existing major construction hall and the previous shipyard cranes (MacPherson, 1993: 41).

⁹⁸ The site and historical buildings of the G&W project in Toronto is a good example of industrial architectural heritage. Also, the buildings are physically sound for conservation and adaptive reuse as a historic residential village in an overall mixed use redevelopment. The site is also used as a historical setting for the film industry. The old complex was registered as a national historic site (City of Toronto, 1994).

Proximity to the Central Business District (CBD)

Being within the inner city, brownfields are in proximity to the central business district (CBD) and part of its market forces. Also, they have better access to its services and amenities. The CBD and its surrounding inner city context is a mixed land use setting which is more likely to be active during most of the day cycle. In addition to having the financial centre and unique commercial retail, the CBD area may include residential, entertainment, and government functions that create a lively urban setting. An active city core is a unique resource and impetus for brownfield redevelopment potential.⁹⁹

Accessibility to Major Transportation Routes and Public Transport Networks

Accessibility to major transportation routes and public transport networks are key factors for locating certain land use functions like office/business and commercial uses as well as mixed use developments and residential communities. Such transportation routes and networks may include expressways, rail transit, buses and other forms of public mass transport.¹⁰⁰ Brownfield redevelopment sites that are in proximity to main transit stations/connections are more likely to be considered as transit oriented development (TOD), which is characterized by relatively more intensive development.

Identifying Market Demand for Growing Land Use Functions

Identifying an existing or growing demand for certain land use functions will make them potential targets for site reuse functional themes.¹⁰¹ The renewed development activity in the project overall area will work as a favourable marketing circumstance and impetus to attract developers and investors for site redevelopment.¹⁰² Also, identifying existing and potential economic linkages between the proposed site reuse functions and the major growing functions

⁹⁹ The Gooderham and Worts complex, Toronto Harbourfront, and the Port Land area are part of Toronto inner city and within walking distance from the City financial district.

¹⁰⁰ Accessibility to major transportation networks played an important role in the redevelopment of the Salford Quays (U.K.) into a mixed-use complex (housing, offices, leisure) (Law and Grime, 1993: 76), and the transformation of the Williams Air Force Base (Arizona, U.S.A) into a civilian airport and an educational-research-training (ERT) facility (Bartsch & Collaton, 1997: 106).

¹⁰¹ This is the basic economic principle of supplying commodities to match demand. In the Salford Quay mixed-use redevelopment (U.K.), there was an increasing demand for office space in the whole area, which instigated the allocation of considerable office space within the project (Law and Grime, 1993: 76).

¹⁰² In the case of the World Class Steel (Ambridge, Pennsylvania), the whole industrial region was declining and then a renewed economic activity started to pick up but for a more advanced steel manufacturing (Bartsch & Collaton, 1997: 106). Also, sites within regional or large area redevelopment will share an interactive marketing potential due to the size of the overall redevelopment. This was exemplified in the cases of The Lachine Canal Revitalization Program in Montreal (London, 1998), the regeneration of derelict industrial sites along the sides of the Tyne and Wear rivers in Newcastle, U.K. (MacPherson, 1993), and the sub-regional economic development of the Leeds-Liverpool Canal Corridor (Tattersall, 1993).

within the surrounding area and the city as a whole may work as a factor in fostering project marketing and redevelopment.¹⁰³

Securing Developer(s), Investors, and Sometimes Tenants in the Beginning

Securing a developer(s), investors, and sometimes tenants, in the early stages of the process will complete the redevelopment package.¹⁰⁴ This will not be achieved by mere traditional market forces, but by deliberate collaborative action and partnership among the major stakeholders including the public sector, private sector, non-for-profit organizations, and the local community.

2.2.5 Planning Process with a Clear Vision

The main favorable circumstances are briefly as follows:

- *Having a clear vision/plan for the project*
- *Commitment to planning especially in dealing with large sites or area redevelopment*
- *Adaptive reuse of potential resources*
- *The possibility of adopting a gradual phasing strategy for redevelopment especially for large sites or partially contaminated*
- *Adopting a incremental strategy for implementing small projects first to build momentum and then the bigger projects*
- *Site within an overall redevelopment area have the incentive for a better resource integration and market image*

Having a clear planning vision for brownfield redevelopment projects is essential, especially when the current site condition and image is depressing.¹⁰⁵ The planning vision should address the main problem components and objectives with a general conceptual resolution which may include, but not be limited to, future environmental aspirations and site condition, viable land use functional themes for the site and its relation to the surrounding context, financing approach (especially for the initial site remediation phase), potential stakeholders' collaboration

¹⁰³ Case examples of such linkages include: Yale University research program and the proposed Science Park in the former U.S. Repeating Arms Complex (New Haven, Connecticut) and; Arizona State University and the proposed educational research training (ERT) facility in the former Williams Air Force Base (Mesa, Arizona) (Bartsch &Collaton, 1997); and the Nissan Plant in relation to the Hylton Enterprise Park (Sunderland, U.K.), which was within a business industrial area (MacPherson, 1993).

¹⁰⁴ In transforming the Uniroyal Tire Factory (Commerce, California) into a mixed-use complex of retail commercial mall, offices and a hotel, the City of Commerce Redevelopment Agency (CRA) managed to arrange a lease (65-99 years) with a private developer where (CRA) will be responsible for site preparation and clean-up and the private developer will be responsible for the remaining redevelopment (Bartsch &Collaton, 1997: 102- 105). In the Newcastle Business Park (U.K.), the Tyne and Wear Development Corporation (TWDC) managed to secure several prestigious organizations as tenants like British Airways, AA Insurance, and Cellnet (MacPherson, 1993).

¹⁰⁵ Here, a planning vision is referred to as an idea(s) or concept that addresses and responds, as a solution, to a certain set of problems and issues. Also, a planning vision may address the grouping of various visions for interrelated sets of problems and issues in order to form an overall vision.

and partnership, and potential social programs. The conceptual vision has to be viable before working out the planning details.

Commitment to Planning

Commitment to planning, especially in dealing with complex problems and large area redevelopment that includes several sites, was instrumental in integrating the overall redevelopment process and making an optimal use and exchange of resources.¹⁰⁶ Sites within a large overall redevelopment area have an interactive advantage among each other, while single site projects work individually in the redevelopment context.¹⁰⁷ In addition to physical-functional sites' integration, comprehensive area planning needs to include the integration of social, economic, and environmental planning.¹⁰⁸ In essence, the context of brownfield redevelopment is complex in terms of multiple components and hence planning becomes indispensable.

The adaptive reuse of buildings, site context, facilities, and other available resources

(material and non-material) was a central planning-design theme for sites having such resources, and in specific, for sites characterized by historical, architectural, and cultural heritage values. The concepts of preserving industrial heritage and historical contexts and evolution are central planning-design themes for the adaptive reuse of sites, buildings, and industrial artifacts. The aim was to preserve the old industrial physical setting as much as possible and adapt it to potential new functions. An important issue during this process was how to balance levels of heritage conservation, financial cost, and intensity of site redevelopment and innovation.¹⁰⁹

In a study on "*Mobilizing urban heritage to counter the commodification of brownfield landscapes: lessons from Montreal's Lachine Canal*", Bliet & Gauthier (2007: 46) propose "*urban morphology*" as a process to understand urban evolution and to preserve industrial

¹⁰⁶ In the Tyne Riverside redevelopment area, the design of the Central Quayside project was integrated with the Hanging Gardens project in order to form a continuous link with the CBD area; and the whole riverside redevelopment had a common public walkway; also, the soil taken from the excavated Marina project was reused as an infill for an old rail cut in another project within the same area (MacPherson, 1993).

¹⁰⁷ Heberle & Wernstedt (2006: 493) outline that "*an area-wide approach that explicitly treats multiple brownfield properties as a system and tackles them en masse rather than each in isolation could improve the prospects for community revitalization in several important ways.*"

¹⁰⁸ In a study on employment effects of brownfield redevelopment, Howland (2007: 102) concludes that "*success involves large-scale planning that integrates site cleanup with wider community development, long-term and substantial government resource commitments, a linking of jobs on brownfield sites to local residents, increasingly sophisticated subsidies and incentives, the importance of design that integrates redevelopment with the existing neighbourhood, and social programs that tackle school quality and job training.*"

¹⁰⁹ This balance included the architectural perception of the resulting environment, as well as balancing the economic/financial feasibility of heritage conservation, a relatively higher cost to revenue generation, with new building additions to increase the floor area of revenue generating uses. The case of the Gooderham and Worts project in Toronto is a good example (City of Toronto, 1994).

heritage of brownfield sites within their historical, economic, social, and cultural context over time. This planning process adds another dimension of heritage preservation and adaptive reuse of not only individual heritage buildings of brownfield sites, but also their historical urban context represented by surrounding communities as well as city context.

Adopting A Gradual Phasing Strategy For Redevelopment

The possibility of adopting a progressive phasing strategy for redevelopment of contaminated sites was instrumental in the implementation of relatively large sites. In such cases, phasing of redevelopment made it possible to implement first the plans on cleaner sites (or portion of the site), while site remediation is carried out on contaminated areas.¹¹⁰ This incremental redevelopment made the process more time efficient, cost effective, and ultimately financially viable due to the progressive generation of revenues used to cover other redevelopment costs.¹¹¹

2.2.6 Potential Policy Directions as Derived from Favorable Circumstances¹¹²

The favourable circumstances for brownfield redevelopment, outlined in the previous section, are used as the basis for developing tentative policy directions. The favourable circumstances form the main objectives for the policy directions. Some of the policy directions may be considered as planning guidelines. Exhibit 2.7 provides an outline of the tentative policy directions in relation to the pertinent favorable circumstances for brownfield redevelopment.

Exhibit 2.7: Potential Policy Directions Derived from Favourable Circumstances (by Problem Components)	
Favourable Circumstances Classified by Problem Components (As applied to general case studies)	Potential Policy Directions in Relation to Favourable Circumstances & Components
<p><u>1. Project Financing and Redevelopment Incentives – (Economic Component)</u></p> <ul style="list-style-type: none"> • Availability of public start-up funding • Accessibility to government financial programs/grants • Availability of tax and other redevelopment incentives • Availability of low-interest rate loans • Existence of self-financing mechanism (Like TIF/TIEF) • Blighted sites within special district zoning with incentives • Shared public-private sector financing • Other financial incentives (mtg. guarantees & removing liens) 	<ul style="list-style-type: none"> • <i>To develop a self-financing mechanism (like tax increment financing-TIF) that is tailored to the Canadian context in order to finance the first package of site remediation and restoration</i> • To develop financial and other redevelopment incentives in order to create an attractive redevelopment package • To foster public-private financial partnership for site remediation and for site redevelopment.

¹¹⁰ In the case of the Soo Line Rail yard project (Minneapolis, Minnesota), the city development agency (MCDA) divided the site into clean parcels and contaminated parcels in order to proceed with the redevelopment on clean parcels first, while going through the cleanup of contaminated parcels (Bartsch & Collaton, 1997: 113).

¹¹¹ Another example of progressive redevelopment is the case of Tyne and Wear redevelopment areas, when the Development Corporation (TWDC) started the redevelopment of smaller sites firsts to achieve initial success and to gain public support in the beginning in order to build momentum for the redevelopment of the larger sites “Flag Ship” projects later (MacPherson, 1993: 42).

¹¹² In this research a policy is a major planning decision or objective regarding certain component(s) within the planning process. In some ways a policy may represent a micro-level plan for a certain issue or component that is part of the overall plan and planning process. A policy direction is the main issue statement or objective that represents the core of the policy. However, further research is required to develop the final policy plan.

<p><u>2. Role of Government, Private Sector, & Community Residents – (Political Component)</u></p> <ul style="list-style-type: none"> • Existence of specialized government development authority • Collaboration and partnership among different government levels (federal-provincial-local) (Public-Public) • Collaboration and partnership between the public sector and private sector (Public-Private) • Collaboration and partnership among the public sector, private sector, and community residents (Public-Private-Community) • Stakeholders’ commitment to project success • Cases of owner-developer facilitate decision making 	<ul style="list-style-type: none"> • <i>To establish network linkages among stakeholders (public, private, and community) in order to foster collaboration and partnerships throughout the different stages of the process</i> (Public-Public, Public-Private, and Public-Private-Community) • <i>To establish a special redevelopment authority that is directly responsible for the reuse and redevelopment process of blighted/contaminated sites.</i> This may be in the form of a public authority, or a form of (Public-Private) partnership. • To secure access of local residents to newly provided opportunities (jobs)
<p><u>3. Environmental Concerns & legal liability of Contaminated Sites (Environmental Component)</u></p> <ul style="list-style-type: none"> • Addressing environmental contamination problems in the beginning and to set an appropriate site remediation plan • Clear definition of legal liability for previous contamination and partial relief of liability after decontamination • Conditional lift of future liability on new purchasers of already cleaned-up sites • Ensuring a consistent environmental approval process (Process) • Developing new guidelines and standards that are based on risk assessment and risk management • Establishing an inventory of brownfield sites (Physical) • Contaminated sites within a government inventory priority list may have access to government funds and assistance • Availability of environmental liability insurance to cap site remediation cost (Economic) 	<ul style="list-style-type: none"> • <i>To address environmental contamination and site remediation in the beginning of the process in order to arrange for an optimal and legally viable site remediation plan</i> • <i>To define and confine legal liability to viable limits</i> • Conditional lift of future liability on new purchasers of already cleaned-up sites <p><u>Environmental-Physical Component</u></p> <ul style="list-style-type: none"> • <i>To prepare an inventory of blighted contaminated sites</i> <p><u>Environmental-Economic Component</u></p> <ul style="list-style-type: none"> • To provide environmental liability insurance to cap site remediation cost <p><u>Environmental-Planning Process</u></p> <ul style="list-style-type: none"> • Ensuring a consistent and expedited environmental approval process
<p><u>4. Project Marketability (Economic Component)</u></p> <ul style="list-style-type: none"> • Availability of potential resources within the site that may attract investors/developers (like natural/cultural heritage, historic value, riverfront scenic value, existing facilities/networks) (Physical) • Proximity to city core functions (CBD) and its amenities • Accessibility to major transportation routes (expressways); availability of multiple transport modes • Identifying an existing demand for certain uses, competitive growing functions and/or renewed economic activity • Availability/identifying linkages with institutions and/or interrelated growing functions (like university or an industry) • Securing developers and tenants in the early process stages 	<ul style="list-style-type: none"> • To arrange for project marketing in the early stages of the process in order to secure potential developers and investors for different packages of the process • To secure potential developers and tenants in the early stages
<p><u>5. Planning with a Clear Vision (Overall Planning Process)</u></p> <ul style="list-style-type: none"> • Having clear vision/plan for the project • Commitment to planning especially in dealing with large sites • Adaptive reuse of potential resources (Physical-Functional) • Adopting a gradual phasing strategy for implementation • Adopting a strategy for implementing small projects first to build momentum then the bigger projects • Sites within an overall redevelopment area 	<ul style="list-style-type: none"> • Having clear vision for the project • Commitment to planning especially in dealing with large sites • Adopting a gradual phasing strategy for implementation <p><u>Physical-Functional</u></p> <ul style="list-style-type: none"> • Adaptive reuse of potential resources including sites and buildings

These policy directions and guidelines are considered as preliminary findings to be further studied in the empirical case studies (Part Two).

2.2.7 Related Policy Recommendations for Brownfield Redevelopment¹¹³

The NRTEE-2003 National Brownfield Redevelopment Strategy (NBRS) was primarily prepared for public policy and included three strategic directions (Exhibit 2.8). The emphasis of the first group of policy recommendations was primarily on the financial/economic component addressing upfront cost of site remediation and preparation, which included financial incentives like tax credits, grants, low interest loans, mortgage guarantees, etc. While the second group of policy recommendations focused on the environmental-legal component addressing definition of and putting limits on legal liability of contamination as well as supporting site specific environmental assessment approaches. The third group of policy recommendations focused on cooperation among the public, private and non-for-profit sectors to establish a National Brownfield Association, developing innovative environmental technologies, educational strategy to raise awareness about the economic, and social and environmental benefits of brownfields.

Exhibit 2.8: Summary of the National Brownfield Redevelopment Strategy (NBRS) Policy Recommendations (Prepared by NRTEE, 2003: 18, Table 1)		
<i>Strategic direction</i>	<i>Recommendations</i>	<i>Responsibility</i>
<i>1. Applying Strategic Public Investments to Address Upfront Costs</i>	<i>1.1 Implement tax system changes to promote brownfield redevelopment</i>	<i>Federal Provincial/Territorial Municipal</i>
	<i>1.2 Remove Liens and tax arrears against qualifying brownfield sites</i>	<i>Federal Provincial/Territorial Municipal</i>
	<i>1.3 Provide mortgage guarantees for qualifying brownfield sites</i>	<i>Federal</i>
	<i>1.4 Provide revolving loans for qualifying brownfield sites</i>	<i>Federal Provincial/Territorial Municipal</i>
	<i>1.5 Provide grants for qualifying brownfield sites</i>	<i>Federal Provincial/Territorial Municipal</i>
<i>2. Establishing an effective public policy regime for environmental liability and risk management</i>	<i>2.1 Allow binding contractual allocation of liability</i>	<i>Provincial/Territorial</i>
	<i>2.2 Provide for termination of regularity liability</i>	<i>Provincial/Territorial</i>
	<i>2.3 Provide for termination of civil liability after a limitation period</i>	<i>Federal Provincial/Territorial</i>
	<i>2.4 Create an insurance fund for post-liability termination claims</i>	<i>Federal Provincial/Territorial</i>
	<i>2.5 Apply site-specific assessment and approval regime</i>	<i>Federal Provincial/Territorial Municipal</i>
	<i>2.6 Provide for regulatory approvals of remediation</i>	<i>Federal Provincial/Territorial Municipal</i>
<i>3. Building</i>	<i>3.1 Increase Capacity to undertake brownfield redevelopment</i>	<i>Federal</i>

¹¹³ This section includes a brief outline of the “National Brownfield Redevelopment Strategy” (NBRS) prepared by NRTEE in 2003. Also, the analysis includes the “State of Canada’s Brownfield Redevelopment Industry” prepared by Ontario Centre for Environmental Technology Advancement (OCETA) in 2008 as a review of Canada’s progress in response to the NRTEE-2003 NBRS.

<i>capacity for and community awareness of brownfield redevelopment</i>	<i>projects</i>	<i>Provincial/Territorial Municipal</i>
	<i>3.2 Facilitate the demonstration of innovative environmental technologies and remediation processes</i>	<i>Federal Provincial/Territorial Municipal</i>
	<i>3.3 Raise awareness of the benefits of brownfield redevelopment</i>	<i>Federal Provincial/Territorial</i>

The findings of the OCETA-2008 Study indicated that considerable action had been taken in Canada since the release of the NBRIS in 2003.¹¹⁴ The OCETA Study pointed out that effective public-private collaboration has played a major role in the development of successful brownfield strategies and the importance of private sector engagement should be stressed at all levels of government. Also, the OCETA Study asserted the importance that all levels of government collaborate and coordinate their approaches in order to remove barriers and improve brownfields redevelopment (public-public collaboration and partnership). In addition, the Study pointed out that further research is required to identify areas to motivate the Canadian brownfield redevelopment industry (OCETA, 2008: 3). This is an indication that the policy recommendations of the NBRIS did not cover all problem components.

Almost all of the policy recommendations of the NBRIS (at least in concept) are included in one way or another in the policy directions proposed in this thesis and outlined in Exhibit 2.7. However, the NBRIS did not explicitly address some problem components or some areas within certain components like the social component (social equity issues) and physical-functional component (like lacking information/inventory of brownfield sites and conservation of industrial heritage). Regarding the political component, the policy recommendations of the NBRIS included cooperation of all levels of government with private and non-for-profit sectors to establish a

¹¹⁴ The key findings from the OCETA market research study include the following:

1. *The NRTEE Brownfield Strategy has been well-received by both the public and private sectors and has been used as key guidance document regarding what is needed to remove the barriers to brownfield redevelopment.*
2. *The Definition of “brownfields” used by NRTEE has become recognized as the industry standard; however, this definition has often been modified to meet the particular needs of various regions or sectors.*
3. *There has been a reprioritization regarding the important barriers identified by the NRTEE as well as the addition of new barriers that are considered to be an impediment to redevelopment in Canada.*
4. *Effective communication and cooperation between the public and private sectors has played a major role in the development of successful brownfield strategies. The importance of private sector engagement should be stressed at all levels of government.*
5. *It is important that all levels of government work together to coordinate their approaches in order to remove barriers and improve the brownfields redevelopment process.*
6. *Brownfield redevelopment is directly linked to reducing greenhouse gas emissions and act as a catalyst in creating revitalized sustainable communities. Brownfields should be an important component of government policy objectives in the areas of climate change and sustainable communities.*
7. *Barriers to brownfield redevelopment are often inter-related and by removing one barrier, there can be a positive impact on other barriers (OCETA, 2008: 3).*

National Brownfield Association to foster brownfield redevelopment, which is a form of public-private collaboration and partnership (Item 3.1, Exhibit 2.8; NRTEE, 2003: 31). However, community residents and groups are in a way left out from this partnership. The findings of this literature review so far indicates the importance of including community residents and groups in brownfield redevelopment possibly in the form of public-private-community collaboration and partnership (see previous Section 2.2.2 for details).

In general, and even though a policy may address more than one component, it is important to classify policy directions or recommendations by the pertinent problem components in order to see the whole multiple component picture and to help identify linkages among policies within different components.

2.3 BLIGHTED/CONTAMINATED SITE REUSE & REDEVELOPMENT PROCESS

2.3.1 Main Packages-Stages of the Process and Primary Stakeholders' Responsibility

Generally speaking, the reuse and redevelopment process of blighted industrial sites includes two major packages or stages: the first package is project initiation and site remediation/preparation and the second is site reuse and redevelopment. Site remediation and preparation has its own environmental approval process by the concerned public authorities, and this process is part of the overall site redevelopment approval process.¹¹⁵ The two approval processes are interdependent on each other because the level of site environmental clean-up may be dependent on the type of proposed land use functions.¹¹⁶ The main packages and stages are as follows:

Package-A: Environmental Site Remediation and Preparation:

- 1. Project Initiation (Site purchase/acquisition in case the owner is not the project initiator):**
 - **Project monitoring**
 - **Project financing (for Package-A)**
- 2. Site remediation/cleanup and preparation which include:**
 - **Community consultation and involvement,**
 - **Site environmental investigation and remediation, (for contaminated sites),**
 - **Infrastructure upgrading and service installation,**
 - **Approval of site environmental remediation by concerned public authorities.**

¹¹⁵ In Canada, the environmental approval process is primarily regulated/monitored by environmental authorities at the provincial level (Ministry of Environment-MOE). However, the environmental approval process is carried through the local municipality. The Public Health Officer at the municipality (or the Environmental health officer), who is linked with the MOE, gives the approval for site remediation (see case study of “*The G&W Project*”). The MOE is informed at each stage in the process. In the U.S. the approval process is at the federal level (EPA, especially for the National Priority List for brownfields) and at state level, unless an agreement is made between the federal and state agency as in the Voluntary Clean-up Program (VCP) that is performed at state level.

¹¹⁶ For instance, cleanup criteria for residential functions are relatively less stringent than those for commercial and industrial functions. Also, the site-specific risk assessment (SSRA) approach for site remediation could be related to the design and planning of the proposed project (MOE, 1997).

Package-B: Site Reuse and Redevelopment:

3 Project Marketing: ¹¹⁷

- **Potential sale or lease of the site to a developer/investor or public-private partnership**
- **Marketing for project tenants (preferably in the beginning or after site redevelopment)**
- **Project financing (for Package-B, which may also be done at project start)**

4. Site reuse and redevelopment:

- **Community consultation and involvement,**
- **Physical planning and design for the proposed project on site, which may include: land use planning, urban design, site planning and landscape design, architectural design, adaptive reuse of existing buildings/facilities and heritage planning and design,**
- **Development approval by concerned public authorities,**
- **Tenants' occupancy.**

In the majority of the case study projects, brownfield sites were originally privately owned.¹¹⁸ Legal liability risks of contaminated sites were usually carried to new owners and purchasers unless exempted by new regulation, agreement or indemnification against such risks. In some cases, and because of liability risks and cost of environmental clean-up that may exceed the real estate value of the land (NRTEE, 2003: 5), private owners had abandoned their properties and potential developers were reluctant to take on the risks of such redevelopment (De Sousa, 2006: 393; Bartsch & Collaton, 1997: 3). In some other cases, default on paying property taxes led to property title transfer to the municipality. This brownfield perspective made it less likely feasible for the private owner or developer to initiate brownfield redevelopment.

As a result, and as exemplified in most of the general case studies, the government had to initiate brownfield site redevelopment by providing financial incentives as well as through redevelopment agencies or special governmental bodies.¹¹⁹ The main objective of the public redevelopment agency was to prepare the site and services to make the redevelopment package attractive for marketing to potential private developer(s) and investor(s). Private developers would purchase, lease, or form a partnership with the public authority to take responsibility for

¹¹⁷ Here, marketing is referred to as a transaction stage rather than actual timing of the work. As outlined earlier, favourable circumstances exist when marketing is planned and performed in the beginning of the process to secure potential developers, investors, and project tenants. Also, in very few case studies the owner, private or public, was solely responsible for the entire process, including site remediation/preparation and site redevelopment. The majority of case studies included marketing a package or the entire project to a stakeholder other than the original owner, or a form of partnership with the owner.

¹¹⁸ Among fifteen U.S. cases, only the Williams Air Force Base (Mesa, Arizona) was publicly owned. Also, some of the sites within Toronto Port Lands are owned by TEDCO but operated under lease by the private sector. Also parts of certain sites within the canal corridor in Montreal and in the U.K. cases were publicly owned.

¹¹⁹ In most U.S. cases, the redevelopment authorities, linked with local municipalities, were primarily responsible for initiating BR. In all cases in the U.K., the development corporations established by the central government were primarily responsible for initiating BR. In most of the Canadian case studies, the municipality was primarily responsible for initiating BR. The Toronto Economic Development Corporation (TEDCO), Owned by the City, was responsible for initiating the Port Land projects (City of Toronto-TEDCO, 1998).

site redevelopment. This marketing stage and public-private partnerships/agreements are preferably done in the beginning of the process so that stakeholders' responsibilities for each stage are known from the beginning.¹²⁰ Also, given that blighted contaminated industrial sites were in proximity to residential areas, community involvement within a public consultation process was essential from the beginning and throughout the process; this is in addition to the legal requirement for public consultation for brownfield redevelopment.¹²¹

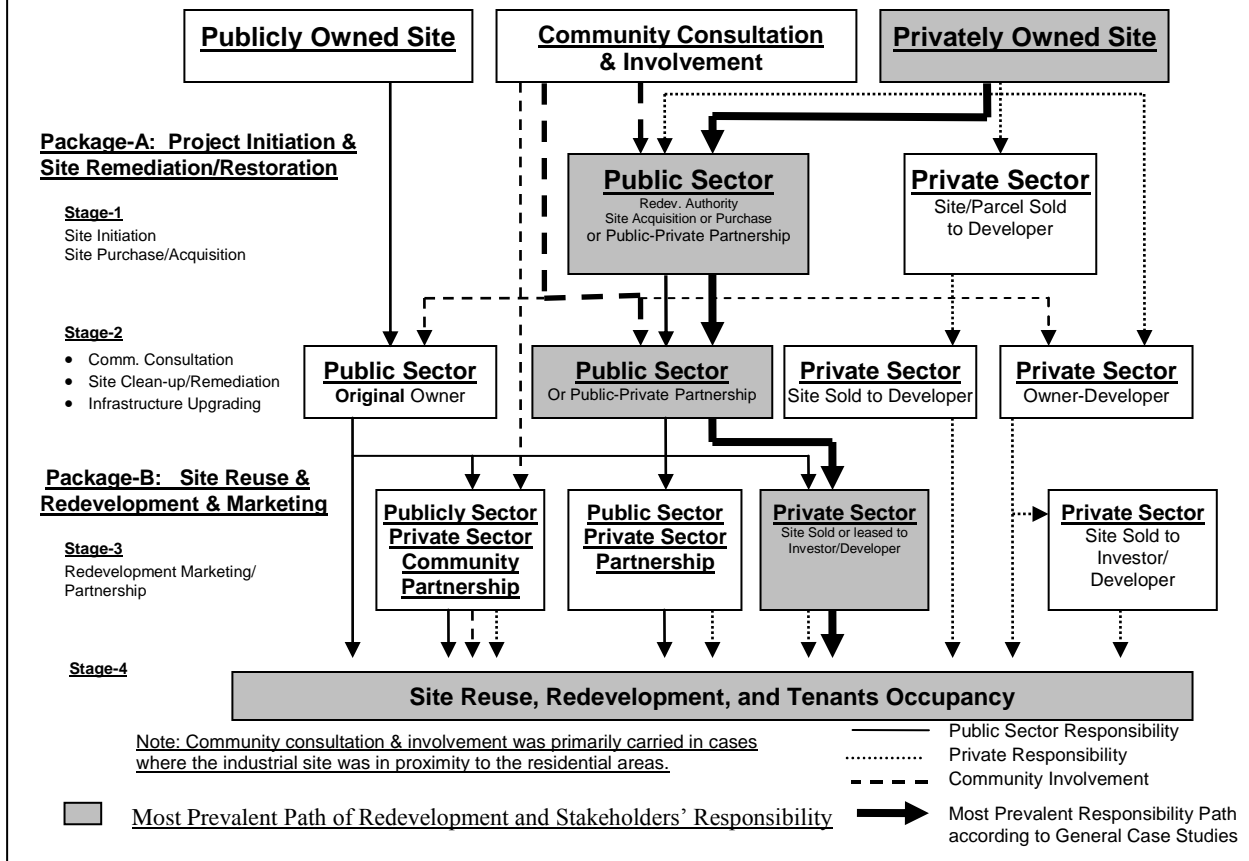
The distribution of stakeholders' responsibility for the potential packages and stages are outlined in Exhibit 2.9. The thick black line represents the most prevalent path for primary stakeholders' responsibility for the two packages and their respective stages. This Exhibit outlines that in the majority of case studies, the site was privately owned. The public sector (or public-private partnership) was primarily responsible for the first package of project initiation and site remediation, then the cleaned site was marketed to the private sector developer that was primarily responsible for the second package of site reuse and redevelopment. In successful cases, there was a prior public-private agreement for the designated responsibilities for each package and before actual implementation of a site remediation plan.¹²² One important conclusion is that government involvement is needed to facilitate brownfield redevelopment especially in early stages of project initiation and site remediation.

¹²⁰ These public-private agreements/partnerships represent the ground stone for success in many cases like the Toronto Hydro Project within Toronto Port Lands. The three-party agreement between TEDCO – the landowner, Shell Canada – the former user of land, and Toronto Hydro – the future user and developer of the land, was the major ground stone for project success.

¹²¹ In some cases, community residents were former employees of the shut down facility on the property under redevelopment, like in the cases of the U.S. Repeating Arms Complex (New Haven, Connecticut), and Sears in Lawndale, Chicago. Community involvement was also carried in the stockyard area revitalization in Fort Worth, Texas, where crime problems existed and the local community participated in the safe community program (Bartsch & Collaton, 1997). In Ontario, public consultation is legally mandatory for contaminated site remediation (MOE, 1997), and for projects that require Official Plan amendment and rezoning (Ontario Planning Act, R.S.O., 1990).

¹²² The case of the Uniroyal Tire Factory (Commerce, California) was a success story resembling this public-private partnership. The City of Commerce Redevelopment Agency (CRA) purchased the contaminated tire factory from Uniroyal. Then (CRA) agreed with a private developer on a long-term lease with (CRA) would be responsible for site remediation and preparation, while the developer would be responsible for site redevelopment. The selection of the developer was based on a competitive bidding offer for retail commercial complex that included a factory outlet mall, office buildings, and Hotel (Bartsch and Collaton, 1997: 102).

Exhibit 2.9: Blighted/Contaminated Site Reuse and Redevelopment Process - Packages & Stages
with Potential Distribution of Primary Responsibility among Main Stakeholders

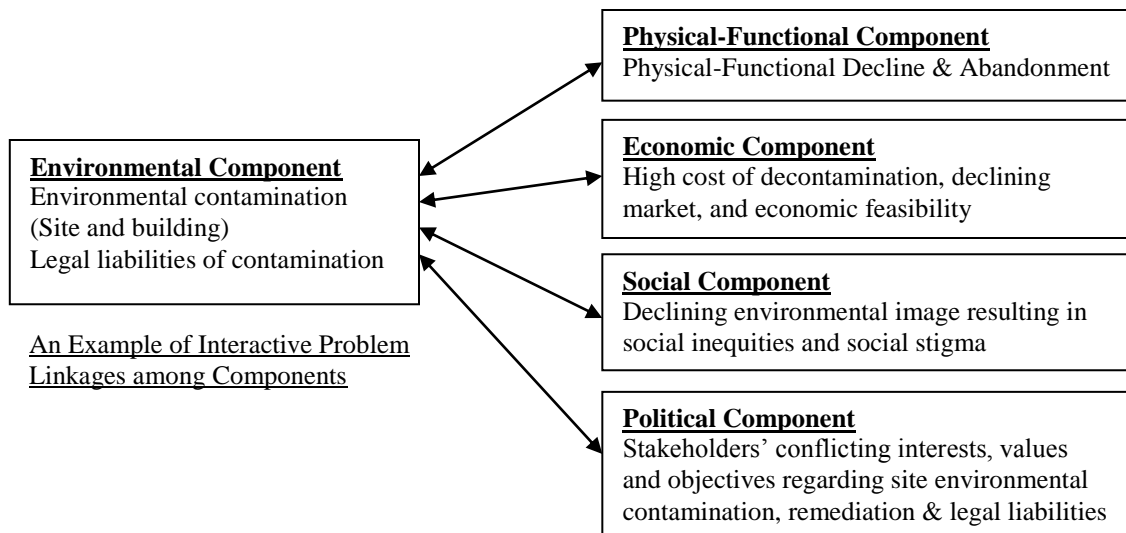


2.3.2 Problem Components and Pertinent Planning Sub-processes

As outlined earlier, the context of blighted industrial sites includes multiple problem components (Exhibit 2.5). The pertinent problems and issues are manifested in case study projects in a composite form. In a study on measuring site-level success in brownfield redevelopment, Wedding & Crawford-Brown (2006: 487) propose a multi-faceted indicator framework for project plan evaluation based on four components or sets of indicators which include environmental-health, financial, social, and livability indicators. Indicators may have multi-functionality in terms of linkages to the different components and the research findings reveal that the indicators that scored high in level of importance are those that possess multi-functionality (more linkages). This evaluation framework reflects a multiple component inter-related problem context of brownfield redevelopment.

Interactive problem linkages may be manifested among factors within the same component or different components. For example, site environmental contamination may have an impact on several issues including human and ecological health that results in environmental

risks and legal liabilities; together, they may have impact on the current and future land use functions. In some cases, site and building contamination led to the abandonment of the property. Also, environmental contamination and its legal liabilities have an impact on site remediation cost and project economic feasibility.¹²³ Politically, level of site remediation and related cost affect stakeholders' decisions regarding site redevelopment due to conflicting interests and objectives. The following outlines these interactive problem linkages among components.



Similarly, economic feasibility may affect and be affected by stakeholders' decisions, especially in projects with conflicting stakeholders' objectives and values. A good example is heritage conservation and related costs versus financial profit from the project.¹²⁴ This interactive nature implies an interactive setting among components with linkages at both the problem context level and consequently at the policy-planning level as well.

In any specific case study project, there is a special planning sub-process, primarily responding to the pertinent set of problems, issues, and objectives of the respective component. At the same time, each planning sub-process addresses related linkages to other components. In most of the case studies, project planning and design included a form of the following main sub-processes that may represent different but interrelated components:

¹²³ In many cases the property had a negative real estate value, i.e. the cost of site remediation was higher than real estate value after site remediation as in the case of Industri-plex in Woburn, Massachusetts (Brooks, 2006).

¹²⁴ A good example is the case of the G&W project in Toronto, when there were special conditions by the City and heritage groups to have heritage conservation at a considerable level. In order to get to an agreement with the private Developer, the City allowed for an added development density to balance the added cost of required heritage conservation (Key Participants' Interviews, 2000).

- Environmental Component: Mainly site environmental remediation and restoration planning
- Physical-Functional component: Land use planning, community planning and urban design, architectural and landscape design, adaptive reuse of existing site/building resources including heritage conservation
- Economic Component: Financial planning and marketing
- Social Component: Social planning including social equity and social security planning¹²⁵
- Political Component: Stakeholders' organizational planning and partnerships, Stakeholders' collaboration and involvement including the public consultation process

Each planning sub-process is interrelated to other sub-processes based on linkages within and among problem components. For instance, site remediation is interrelated with land use planning and design, financial planning, and social equity planning. The public approval process for site remediation and site redevelopment are interrelated, and hence need to be conducted integrally. Also, stakeholders' organization planning and partnership is another planning sub-process that affects decision-making in all other planning sub-processes. In essence, these planning sub-processes, as their pertinent problem components, are interrelated and complementary to each other; altogether, they form the overall planning process.

In the majority of case studies, there was a composite form of redevelopment issues relating to the various impinging problem components.¹²⁶ The key issue was to identify the linkages among components in order to integrate courses of action and to resolve the interactive problem linkages such as site contamination and decontamination cost, reuse functional themes for dilapidated areas and marketability, and stakeholders' consensus and project feasibility.

The potential planning sub-processes, their main interactive problems and issues, as well as their potential objectives are outlined in Exhibit 2.10. Each case study project has its unique composite form of planning sub-processes and pertinent issues due to its unique problem context. Accordingly, the specific nature of planning sub-processes is variable and case specific case.

¹²⁵ Social planning may include a wide range of issues; however, in brownfield redevelopment social equity and social safety/security planning represent outstanding problems that potentially take priority.

¹²⁶ In the case of the Lachine Canal Revitalization Program, the aim was a multifaceted, mixed-use project in order to allow the Canal area be 1. A place of recreational and tourist activity, 2. A spine to the network of public spaces - parks, squares, and promenades, 3. An area with a variety of uses – industrial, residential, and commercial, 4. An important heritage site, 5. A catalyst for economic revitalization of the area and job creation, targeting the local community” (London, 1998: 17). In the case of Leeds-Liverpool Canal Corridor project, the development program included economic development (job creation), required skill training of local residents to access new jobs, derelict land reclamation, as well as environmental remediation, restoration and enhancement (Tattersall, 1993:52-56).

Exhibit 2.10: Problem Components, Respective Planning Sub-processes, Main Interactive Problems/Issues, and Their Potential Objectives		
Problem Components and Planning sub-process	Main Interactive Issues and Problems	Potential Objectives
1. Environmental- Legal Component <ul style="list-style-type: none"> • <u>Site remediation and restoration planning</u> • Watershed planning • Ecosystem planning 	<ul style="list-style-type: none"> • Environmental contamination of sites/ buildings posing health risks for both human and natural ecosystems • Legal liabilities of contamination and decontamination (current and future liabilities and real and perceived liabilities) • Sometimes watershed flooding risks 	<ul style="list-style-type: none"> • To secure healthy environments, site remediation and mitigating risks on human health and ecological setting • To enhance and sustain environmental quality/value • To define and confine liability to viable limits
2. Physical-Functional Component <ul style="list-style-type: none"> • <u>Physical-functional planning and design</u>, which may include: <ul style="list-style-type: none"> • Land use planning , • Community planning & urban design, • Architectural design and adaptive reuse/ renovation of existing buildings. 	<ul style="list-style-type: none"> • Vacant, abandoned, or underutilized buildings and sites – a lost urban space • Structural/physical dilapidation of buildings • Deterioration of physical infrastructure • Declining environmental image and perception of the site and buildings – visual eyesores and dereliction • Land use functional incompatibilities between site and surrounding • Urban physical-functional fragmentation 	<ul style="list-style-type: none"> • To revitalize the site • To reintegrate the site physically and functionally within its surrounding and inner city context, • To achieve land use compatibility • To achieve a sense of place and community • Adaptive reuse of site & buildings including heritage conservation • To achieve an added value project planning and design
3. Economic- Financing & Marketing Component <ul style="list-style-type: none"> • <u>Project Financial and investment planning</u> • <u>Project Marketing</u> 	<ul style="list-style-type: none"> • High cost of site remediation and preparation which may exceed real estate value of the site • High cost of building renovation & restoration • Scarcity of public funding and high cost of traditional private financing • Declining property values and tax base • Declining economic market of the area • High costs and risks make brownfield redev. as economically not feasible favouring Greenfield development 	<ul style="list-style-type: none"> • To secure financing for project packages (site remediation & site reuse/redevelopment) • To achieve economically feasible project (for various stakeholders: public, private, and community) • To market project packages to potential stakeholders. • To create jobs • To enhance property values /tax base
4. Social-Psychological Component <ul style="list-style-type: none"> • <u>Social equity planning (socioeconomic development and accessibility to newly generated opportunities)</u> • Safe community/ environment planning 	<ul style="list-style-type: none"> • Abandoned buildings/sites have potential for social abuse, vandalism/crime (no man’s land) • Declining environmental image and stigmatization of the area especially when close to residential communities • Negative socioeconomic impacts on surrounding residential communities and creating problems of social inequities/injustice • The existing low educational and skill levels and high unemployment rate among residents further enhances the problem of accessibility to newly generated socioeconomic opportunities. 	<ul style="list-style-type: none"> • To secure socially appropriate environments (including safe community & defensible space) • To secure social equity and social justice (including accessibility of local residents and disadvantaged groups to new socioeconomic opportunities like jobs and affordable housing) • Skill upgrading to improve access to jobs • To secure a sense of place
5. Political- Institutional, Organizational Component <ul style="list-style-type: none"> • <u>Stakeholders’ collaboration & partnerships</u> • This includes public-public, public-private & public-private-community collaboration & partnerships/agreements 	<ul style="list-style-type: none"> • Conflicting/competing goals, interests, and values of primary stakeholders • Imbalances of power distribution in the decision making process • Insufficient or lacking trust among stakeholders • Lack of organizational and collaborative commitment among stakeholders toward resolving the problem 	<ul style="list-style-type: none"> • To secure stakeholders collaboration and involvement in the process including public consultation • To secure stakeholders consensus building taking into consideration different values & objectives • To arrange for stakeholders’ partnership to foster redevelopment (public-private-community)

2.3.3 Functional Themes for Blighted Site Reuse and Redevelopment

The functional themes for blighted site reuse covered a wide range of multiple functions. Those functional themes aimed at creating a mix of places for working, shopping, living, and recreation. There were overlaps among the functional themes. However, each composite theme had a predominant functional element that characterized that theme. In the majority of case studies, site and building reuse included new functions other than the original industrial use, which explains the functional land use transformation within the inner city.¹²⁷ From general case studies, the main functional themes are briefly as follows:¹²⁸

- Mixed-use redevelopment including residential, commercial, and offices
- Residential building, community/neighbourhood
- Office use.
- Tourism, parks, and recreation
- Business parks

The approach in the majority of case studies was the adaptive reuse of resources and multiple aspects of heritage conservation including industrial, architectural, cultural, and/or natural heritage. The adaptive reuse included the utilization of the physical, economic, environmental, and social resources available within the site and surrounding areas.

Mixed-use redevelopment was the most prevalent functional theme among the general case studies. The mixed-use consisted of a combination of places for working, living, shopping, and recreation (including office, commercial, residential, cultural, hotels, parks, and sports functions). Based on the relative size of these functions, one may put mixed-use themes into two major categories including predominantly commercial and offices (like the G&W project) and predominantly residential and recreational uses (like Cooksville Quarry project, Mississauga).¹²⁹

Some of the main factors that affect decisions on appropriate new functions include site characteristics and existing resources, location, nature of contamination and site remediation, financial feasibility and marketability, generation of jobs and social benefits, land use compatibility, and overall stakeholders' vision for the site and surrounding. It is evident that developing an appropriate site functional theme is a complex decision making process that relates to the same multiple component problem context.

¹²⁷ This was partly because of appropriateness (social, economic, and environmental) for inner city revitalization as well as the move of heavy industrial functions to suburban and ex-urban locations (see Section 2.1.2).

¹²⁸ See Appendix A2.1.6 for more details.

¹²⁹ The tourism function may also overlap with mixed-use redevelopment, especially in cases that include heritage resources as in the G&W Project in Toronto, as well as recreational facilities as in the WHDS, Hamilton.

CHAPTER THREE: CONTRIBUTION OF GENERAL PLANNING THEORY AND RELATED INTERDISCIPLINARY THEORIES

Two categories of theories are addressed here, namely: (1) general planning theory and (2) applied planning theory and relevant interdisciplinary theories.¹³⁰

3.1 GENERAL PLANNING THEORY

Theory is basically the general or abstract principles that explain a phenomenon.¹³¹ Alexander (1992:2) defines theory as “*a way of understanding the world, a framework to organize facts and experience and interpret them in a systematic way*”. This is a scientific definition which may be applied to a specialized discipline but needs to be adjusted when applied to a complex multi-disciplinary context. Planning theory, and as conveyed by the literature, is an elusive subject of study that draws on a variety of disciplines, and there is no single agreed upon definition nor is there any consensus on what it includes (Alexander, 1992; Brooks, 2002; Campbell & Fainstein, 2003). Alexander (1992: 7) outlines the following four major aspects or groups of issues that are addressed by planning theory:

- *Definitional Aspect: what is planning?*
- *Substantive Aspect: what we are planning and for whom we are planning?* This addresses the functional sectors/components - physical, social, public policy & economic planning.
- *Process: how planning takes place and how plans are implemented?* This is the core of planning theory.
- *Normative: How do we plan and why should we plan?* This addresses norms of planning behavior and rationale for planning decision making and by who.

Brooks (2002: 22) outlines two types of theories that may be applicable to planning including:

1. *Positive Theories: attempt to explain the relationship between two or more variables in order to generate predictions about a phenomenon.* An example is urban development models predicting impact of alternative transportation patterns.
2. *Normative Theories: prescribe what the relationship between the variables should be in order to produce results that are deemed desirable.* These can be divided into two parts
a) *An Ethical Normative Theory, prescribes a given relationship because of its “rightness” in view of some external principle ...*
b) *A Functional Normative Theory that is complete in itself and thus requires no external principle.*

Brooks further outlines that positive theories relate to the subject matter or content of planning while normative theories relate to the process of planning. This is basically the classification into substantive and procedural planning theory.

¹³⁰ Contribution of planning theory and related interdisciplinary theories are outline in Appendix A3.1 and Appendix A3.2 respectively.

¹³¹ See Section 1.2.4, Chapter One for related definitions of theory, model and paradigm.

Campbell and Fainstein (2003) point out that “*no single paradigm defines the foundation of planning theory*”.¹³² Given the conditions that limit a clear definition of planning, Campbell and Fainstein place planning theory at two main intersections: the first between “*political economy and intellectual history*” and the second is that of “*the city and region as a phenomenon and planning as a human activity*”. Basically, this approach to planning addresses the substantive (multiple component) and procedural aspects of planning with relative emphasis on the city and the region.

From the different views outlined above, several common themes and concepts emerge and may form the basis for characterizing a definition for planning theory. The first is that planning is strongly linked to and supported by several disciplines which imply a **multi-disciplinary** definition for planning. The second is the **procedural aspect** of planning that characterizes it as a decision making process. The third is that planning, as a human activity and decision making process, is controlled by **multi-stakeholders** and the professional planner(s) is only one group. Here, I would like to add another dimension to planning and that is the **time component** which is usually left out in the theoretical analysis especially in its early stages. Essentially, planning addresses the substantive, procedural, and temporal dimensions and it responds to the following theme of questions of who decides what, why, how, where and when?

3.1.1 Brief Notes on Planning History

The notion of planning was originally rooted in the context of city building/planning, and during the late nineteenth and early twentieth century, planning was applied in response to emerging social, environmental, physical and health problems of the industrial city (Alexander, 1992: 15; Beauregard, 2003: 109; Fishman, 2003: 21; Hodge & Gordon, 2008: 59). New visions for public health reform and for an ideal city emerged, including the “City Beautiful” movement (Daniel Burnham as one main advocate), the “Garden City” (combining town and country) by Ebenezer

¹³² They outline four principal reasons for the difficulty in defining planning theory and they are briefly as follows:

- ... *Planning theory appears to overlap with theory in all the social science disciplines, and it becomes hard to limit its scope or to stake out a turf specific to planning.*
- ... *The boundary between planners and related professionals (such as real estate developers, architects, city council members) is not mutually exclusive: planners don't just plan and non-planners also plan ...*
- ... *The field of planning is divided among those who define it according to its object (land use patterns of the built & natural environments) and those who do so by its methods (process of decision making). The result is two largely separate sets of theoretical questions & priorities that undermine a singular definition of planning.*
- ... *Planning commonly borrows diverse methodologies from many different fields, and so its theoretical base cannot be easily drawn from its tools of analysis ... (Campbell & Fainstein, 2003: 1-2).*

Howard, the “Radiant City” (mass-scaled, dense, vertical and hierarchical) by the Architect Le Corbusier, and “Broadacre City” (a mixture of agrarian individualism and prairie suburbanism) by the Architect Frank Lloyd Wright (Campbell & Fainstein, 2003: 19; Fishman, 2003). Modern planning was also influenced by recommendations from CIAM (Congr`es Internationaux d’Architecture Moderne), which included architects and planners mostly in the physical planning and design field. CIAM’s Athens Charter of 1933 recommends rigorous separation of land uses and their connection by high-speed transportation, making use of automobiles on exclusive roadways, electric railroads in subways, and aircrafts. The historical city was regarded as inefficient and obsolete, and planning for a new kind of city was in the vision for the reconstruction after World War II (Hodge & Gordon, 2008: 78). Even though those visions for city planning included some environmental and social issues, the dominant emphasis was on the physical built environment as the major component in resolving social, environmental, economic, and physical problems (Fishman, 2003: 21).¹³³

In the context of planning Canadian communities, Hodge & Gordon (2008: 113) outline the “*Evolution of Canadian Planning Ideas*” since the late nineteenth century which originated from the following four basic planning concerns: concern over the city appearance, city living conditions, the environment, and city efficiency (Exhibit 3.1). Hodge & Gordon assert that current planning themes including comprehensive planning continue to echo the four basic planning concerns outlined more than a century ago. In essence, those concerns about city conditions represent the substantive components setting for planning and as follows:

- *Concern over City Appearance* (City Beautiful, Urban Design) Physical Setting
- *Concern over City Living Conditions* (Housing Reform, Social Planning) Social Setting
- *Concern over the Environment* (Parks Movement, Ecosystem Planning) Environmental
- *Concern over City Efficiency* (Public Work, Infrastructure Planning) Economic-Physical

The outline of planning evolution by Hodge & Gordon is primarily meant to show planning ideas rather than outlining planning models and paradigms. However, the chart includes a mix of planning ideas and some of the planning approaches/models like comprehensive planning, ecosystem planning, social planning, and sustainable development - all which may contribute to certain planning paradigms. This outline of planning evolution does not address the procedural decision making setting except for the notion of comprehensive planning.

¹³³ It is important to note that these planning visions were mostly generated or influenced by architects and/or city planners (like Daniel Burnham, Frank Lloyd Wright and LeCorbusier) whose inclinations are primarily focused on the physical-functional component.

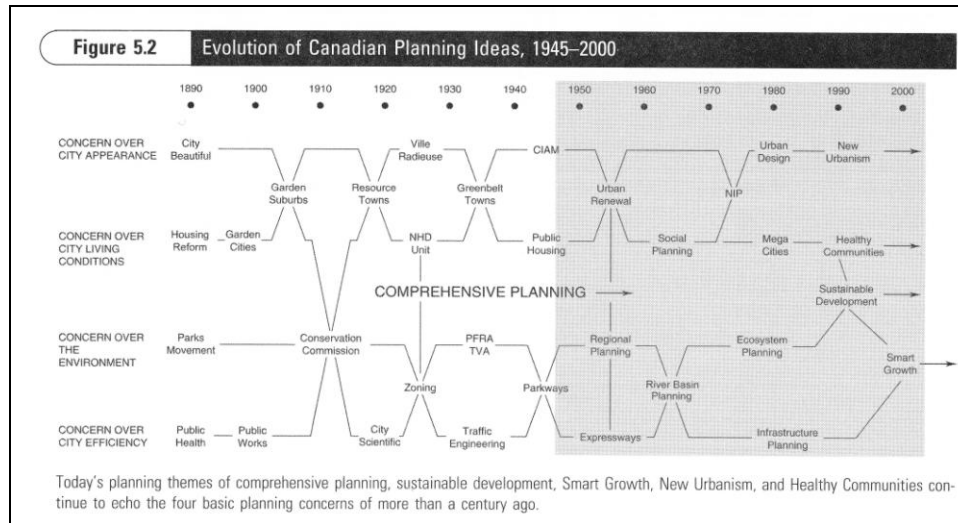


Exhibit 3.1: Evolution of Canadian Planning Ideas (Hodge & Gordon, 2008: 113, Fig. 5.2)

In a capitalist democracy (like Canada or U.S.), planning action is primarily controlled by the property owner/developer (usually private sector)¹³⁴ who has the right to develop and seek profit. It is also controlled by a public sector approval authority that primarily performs regulatory planning and presumably represents the public interest of the community (Klosterman, 2003; Foglesong, 2003).¹³⁵ In essence, the interaction between private owner/developer planning and public sector regulatory planning, in addition to community involvement, forms the combined planning context in a given project. Given this stakeholders' context, the competing primary objectives appear to be the economic-profit making pursued by the property owner/developer versus the social and environmental objectives pursued by the public approval authority and community residents.

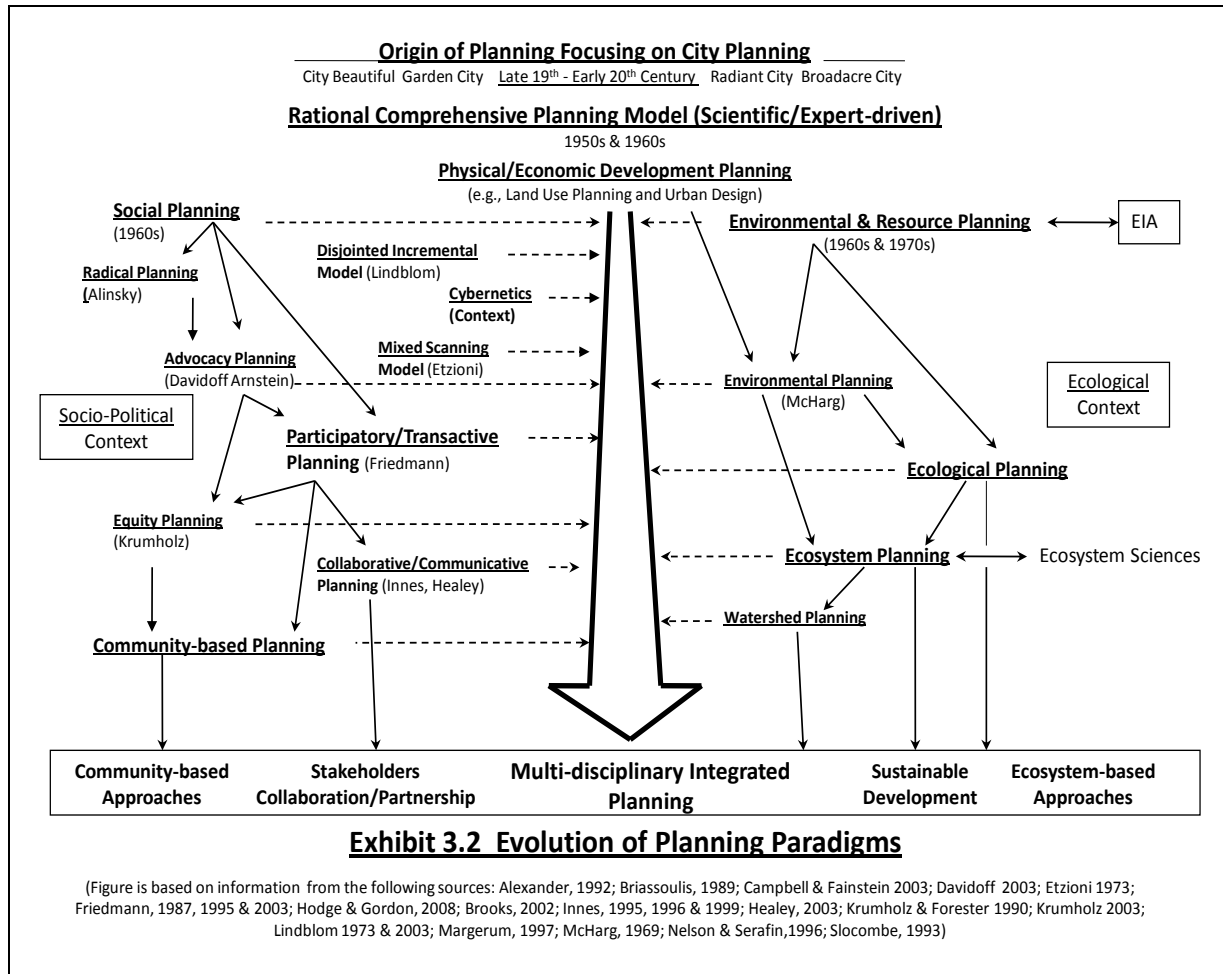
In conclusion, this historical background highlights two major characteristic settings of planning, namely the procedural decision making setting and the substantive setting including the physical, environmental, economic, social and political setting. Also, planning history highlights an inclination more towards the physical-economic components as the main core of planning. One explanation may be the main strong poles of planning and decision making represented by the property owner-developer that emphasizes the economic component and the public regulatory planning authority that follows current planning trends and ideas that are more focused on the physical-functional component (like land use planning and urban design).

¹³⁴ Sometimes property owner/developer is represented by the public sector or public-private partnership.

¹³⁵ Klosterman (2003:95) outlines the need for public planning "to perform four vital functions – promoting the common or collective interests of the community, considering the external effects of individual and group action, improving the information base for public and private decision making, and considering the distributional effects of public and private action."

3.1.2 Planning Approaches/Models and Paradigms

The context of planning theory constitutes a myriad of planning approaches/models and paradigms that have been in continuous evolution, integration to form mainstream planning.¹³⁶ In order to understand the contribution of each individual planning model or paradigm, it is helpful to chart the evolution of planning theory to form a contextual perspective. Exhibit 3.2 diagrammatically outlines this evolutionary perspective.¹³⁷



¹³⁶ A paradigm is defined as “a philosophical and theoretical framework of scientific school or discipline within which theories, laws and generalizations and the experiments performed in support of them are formulated”. A theory is defined as “a plausible or scientifically acceptable general principle or body of principles offered to explain a phenomenon”. A model is defined as “a pattern or an example for imitation or emulations” (Webster’s Online Dictionary, June 5, 2010). In this research, the term planning paradigm is used to characterize each of the main three contextual categories of planning models or theories, namely mainstream planning context, the socio-political context, and the ecological context. The term model is used for the specific planning approach or theory, because the status of general planning theory at this point is a mosaic of various planning approaches and there is no consensus on a unified definition of planning theory (Campbell & Fainstein, 2003:1; Brooks, 2002:22).

¹³⁷ The pertinent planning models, their main characteristics, as well as their contributions to this research are outlined in Appendix A.3.1.

The evolution of planning models shows varying and complementary decision making themes, planning approaches, and planners' roles (Alexander, 1992: 93, Campbell & Fainstein, 2003: 9 & 170; Brooks, 2002: 80). Brooks (2002: 80) classifies planning theories/models in terms of “*Mode of Planning*” (*Rational versus Non Rational*) and “*Locus of Planning*” (*Centralized versus Decentralized*), which are represented in a matrix of four paradigms:

- *Centralized Rationality: The Planner as Applied Scientist – Comprehensive Rationality*
- *Centralized Non-Rationality: Planner Confronts Politics – Incrementalism*
- *Decentralized Rationality: Planner as Political Activist – Advocacy*
- *Decentralized Non-Rationality: Planner as Communicator – Communicative Action*

Brooks further outlines that “*each of the four paradigms has made a significant contribution to the planning profession, but none has been so all-powerful, in its explanations of planning and in its advice to planners, as to earn for itself the mantle of ‘dominant planning paradigm.’*” The classification into “*Centralized versus Decentralized*” planning paradigms makes sense in terms of primary stakeholders' control of decision making and level of community involvement.¹³⁸ However, classification into “*Rational versus Non-Rational*” paradigms seems to be arbitrary because every paradigm/model has certain rationality including “*Incrementalism*” and “*Communicative Action.*” Accordingly, the mentioned classification represents more the specific planning models rather than paradigms.

Planning models played a very important role in defining the general framework and parameters for the pertinent planning process. Also, the different planning models and approaches have shown varying emphasis with respect to particular substantive component(s) resulting in a bias toward that component in terms of setting priority objectives.¹³⁹

In general, the evolutionary perspective of planning approaches and models may be grouped in three main interactive categories or contexts of paradigms that combine the substantive/component setting as well as the procedural decision making setting:

- *Mainstream Planning Paradigm* (focusing on the physical and economic component)
- *Socio-political Planning Paradigm*
- *Ecological Planning Paradigm*

1. Mainstream Planning Paradigm - Models and Approaches

¹³⁸ “*Centralized*” implies less community involvement and “*Decentralized*” is the opposite.

¹³⁹ For instance, physical planning like traditional land use planning and urban design, focused more on the physical environment as a main component and product in the process, and dealt with other components, like social and environmental issues, as interrelated and complementary factors (Alexander, 1992: 103).

Mainstream planning represents the central and main prevailing paradigm resulting from a major theory (or theories) as well as input from other paradigms. The substantive focus of this paradigm was primarily on physical and economic development as represented by city and regional planning. Within main stream planning, the “*rational comprehensive planning - RCP*” model evolved from the physical planning model that prevailed in the 1920s and the 1930s” (Alexander, 1992). During the 1950s and 1960s, physical and economic development planning were predominant and the planning approach was primarily based on the *RCP* model, in which the planner played a central role as an expert in decision-making (Alexander, 1992; Beauregard, 2003).¹⁴⁰ In addition to the physical development rationale, the process followed an economic rationale and was market-driven. This is exemplified in the use of economic models such as financial cost-benefit analysis and evaluation (Alexander, 1992). Those trends had severe social and environmental impacts in terms of social segregation and social inequities leading to the social deprivation of the lower income classes (Keating, et al, 1996; Gratz, 1994; Hodge & Gordon, 2008; Holcomb & Beauregard, 1981; Jacobs, 2003; Davidoff, 2003).

The *RCP* model was primarily based on the rational decision making process, which relied heavily on “scientific” methods and approaches and included inter-related stages/steps of analysis, synthesis, evaluation of alternative solutions, implementation of the selected alternative, and monitoring (Alexander, 1992; Beauregard, 2003; Brooks, 2002; Hudson, 1979).¹⁴¹ Based on the premise that individual problems and issues in planning were interrelated, the rational comprehensive model attempted to include all relevant variables and alternative courses of action to achieve the stated objectives in a simultaneous and systematic approach. The process was primarily top-to-bottom, where the planner or planning group played an important role as technical experts to the executive decision makers (in public and private institutions), and the local community people were in many aspects outside the process (Friedmann, 1987; Beauregard, 2003).¹⁴² In the process, the historical, social and cultural context of planning was

¹⁴⁰ Similarly, after World War Two, urban redevelopment planning and design, mainly urban renewal programs in the United States, Canada and European Cities, predominantly emphasized the human-made physical environment, trying to resolve problems of urban slums and deterioration through physical clearance of the existing historical community context and rebuilding a new community (Gratz, 1994; Hodge & Gordon, 2008:114).

¹⁴¹ See definition of planning as a rational decision making process in Section 2.1.1, Chapter Two. Also, see Exhibit 2.4 for an outline of five models highlighting the rational decision making process.

¹⁴² Beauregard (2003:108) outlines that the modernist planner strove to “(1) bring reason and democracy to bear on capital urbanization, (2) guide state decision making with technical rather than political rationality, (3) produce a coordinated and functional urban form organized around collective goals, and (4) use economic growth to create a middle-class society.” Beauregard further outlines that “both the practice and theory of modernist planning revolves

not properly considered. The **RCP** model was in a way attempting to produce a comprehensive blue print solution for complex urban problems through primarily physical and economic development rationality. This was at the expense of social and environmental issues.

The **RCP** model, as it was conceived and practiced, was criticized for being too ideal and complex in requiring a massive base of information and simultaneously and systematically considering all impinging variables and alternative courses of action that were beyond human capabilities and nature (Alexander, 1992: 48; Beauregard, 2003: 114; Briassoulis, 1989: 384; Brooks, 2002: 91; Lindblom, 2003: 197; Etzioni, 1973: 218). In addition, the decision process did not address uncertainty and was a top-down approach, excluding the less powerful community in the process. Finally, it was deemed not feasible in terms of implied time and cost.

Brooks (2002: 91) criticizes the **RCP** model for being centralized and depending on the technical rational planner that is not relatively more powerful decision maker. Also, some affected stakeholders are excluded from the process. He points out that there is tension between rational planning and the political system and asserts the need for taking the political process into account. In essence, this criticism is on the “central, mere technical and exclusionary” aspects, rather than on the “rational” aspect of the planning model. Brooks view of planning implies addressing political (multiple stakeholder) rationality in the process in addition to technical rationality. This is basically part of applying the political component in the process.

In a comparative evaluation between modernist planning and post modern planning, Beauregard (2003: 116) points out that modernist planning was undermined by postmodernist planners for having a unitary notion of urban development, political neutrality of the technical planner, conflict-free public interest, and a master narrative (rational comprehensive master plan).¹⁴³ He also points out that the modernist master narrative/plan, as a blue print, is relatively

*around the use of **master narratives**. For practice, the narrative synthesizes development processes and the built environment into a coherent urban form that fulfills the functional necessities of the city. The text is the **master plan**. For theory, it involves the formulation of a dominant paradigm – **comprehensive rationalism** – that focuses the normal science of theorists... In essence, modernist planners believe in totalizing what planners call ‘**comprehensive**’ solutions that have a unitary value” (Beauregard, 2003: 112).*

¹⁴³ Beauregard outlines that “*the master narrative of modernist planning is incompatible with a spatially problematic and flexible urban form whose articulations are intrinsically confrontational and whose purposes are more and more the ephemeral ones of consumption. Subsequently, a modernist striving for orderliness, functional integration, and social homogeneity is unlikely to succeed, as is the desire on the part of planners to maintain a critical distance and apply technical rationalism... The postmodernist cultural critique is a complex one. It includes a turn to historical allusion and spatial understandings, the abandonment of critical distance for ironic commentary, the embracing of multiple discourses and the rejection of totalizing ones, a skepticism toward master narratives and general social theories, a disinterest in the performativity of knowledge, the rejection of notions of progress and enlightenment, and a tendency toward political acquiescence*” (Beauregard, 2003: 117).

of fixed/rigid nature and can be incompatible with the continuously evolving flexible urban form that is intrinsically associated with uncertainty. The counter argument is that if the master narrative is considered and viewed as an overall macro-vision that is flexible and adaptable to change and uncertainty, then it can be a positive integral part to micro-level planning. In essence, the criticism is more against the “fixed rigid blue print” aspect of the “modernist master narrative/plan” rather than on the notion of “comprehensiveness” in planning vision. Regarding the rational approach, the criticism is also more on the mere “technical” (planner’s view), rather than the “rational” aspect of planning. However, the inclination is more toward multiple/mixed rationality, which appears to be acceptable professionally, both in terms of theory and practice.

In the context of planning Canadian communities, Hodge and Gordon (2008: 132) outline that comprehensive planning is one of today’s central planning themes and rational decision making is one of the values of planning.¹⁴⁴ They propose a general model for the community planning process and adopt the rational decision making theme within a participatory process, acknowledging that it is “*bounded rationality*” (Hodge & Gordon, 2008: 176). This is another indication that it is exclusive “technical instrumental” rationality as viewed by the individual planner that is the point of criticism, and rationality in plural terms and within a participatory process is acceptable. Also, a form of comprehensiveness in planning is still prevailing.

In conclusion, the main criticism against the **RCP** model is essentially on the notions of centralized decision making (top-down approach), exclusive planner’s technical rationality, rigid and fixed blue print master plans, and exclusion of community residents in decision making. Given this outline, the notions of rationality and comprehensiveness in planning may be applied if the above criticized issues are resolved.

Disjointed Incremental Planning Model (DIP)

The notion of “*satisficing*” was also emerging as a decision making approach, which means that people “*discover and consider options one at a time, using as an evaluation standard a flexible ‘aspiration level’ rather than rigid, predetermined goals*” (Alexander, 1992: 48).¹⁴⁵ Within this

¹⁴⁴ In reference to “Rational Decision Making”, Hodge & Gordon (2008: 133) outline that “*a direct outgrowth of professional planners’ roots in utilitarian philosophy is the great faith placed in reason as a means to determine solutions to community problems. Planning also grew up at the time of civic reform movements that stressed the use of rational administrative and management approaches to local government. As planning has evolved, its method have become focused on providing information and conducting logical analyses in order to evaluate planning proposals. With increased citizen participation, the planner’s reasoning has often been shown to reflect a particular rationale that could be at odds with others’ analyses.*”

¹⁴⁵ According to Brooks (2002: 98), satisficing is “*to settle for a course of action that is merely ‘good enough’ for the purposes at hand*”.

stream of planning, a “***disjointed incremental planning - DIP***” model was developed by Lindblom in the late 1950s, which considered fewer variables and included fewer shorter term alternative courses of action that were slightly different from the status quo (Lindblom, 2003: 197; Alexander, 1992: 48). Quick decisions were made, evaluated, and revised on a continual basis by the executives and the “planning experts” through a process of “*successive limited comparisons*” among the alternative courses of action and reducing evaluation to their marginal differences (Lindblom, 2003: 200; Brooks, 2002: 99).¹⁴⁶ This planning approach was primarily applied in policy planning within well-defined government and corporate institutions, mainly in the United States (Alexander, 1992; Friedmann, 1987). This planning model represented a starting shift from the positivist model of **RCP** to a normative model that maintains the planner as a technical expert.

The **DIP** model was criticized for lacking an overall context, centralized and biased to the interests of the powerful, being more short term than promoting future societal goals (Etzioni, 1973: 220; Alexander, 1992: 49; Brooks, 2002: 102).¹⁴⁷ Brooks (2002: 104) outlines that “*Incrementalism may indeed describe the way in which certain decisions (typically those that are relatively routine) are made, but it hardly presents a model to be emulated.*”

The notion of incremental decision making and implementation has merits in terms of addressing complexity and uncertainty by focusing on specific micro-level objectives. However, **DIP** was lacking overall context. As a result, several models emerged, like the “***cybernetic***” model, which addressed the overall decision context (Alexander, 1992). Also, ***mixed scanning*** was proposed by Etzioni in the mid 1960s as a type of contingency operational level of decision making that focused on key elements and that could be undertaken in an “incremental” mode, as well as the higher level decision making, which required scanning the broader and more strategic

¹⁴⁶ The adaptations or tactics that decision makers use in policy-making were briefly as follows: • “*Compare and evaluate increments only*, • *Consider only restricted number of policy alternatives*, • *Consider only a restricted number of important consequences for any policy alternative*, • *Engage in reconstructive analysis*, • *Carryout their analysis and evaluations serially*, • *Have a remedial orientation* (Brooks, 2002: 100).

¹⁴⁷ Brooks outlines the following arguments about the “disjointed incremental model”: • “*Provided little empirical evidence to support the assertions*, • *It can hardly apply to situations where there is substantial public dissatisfaction with current policies or when new problems arise that require new methodologies*, • *Incrementalism is politically conservative for being reliant on past traditions and institutions and therefore an unattractive strategy in case of fundamental change*, • *Incrementalism is seen as favoring the powerful members at the expense of the politically weak and under-represented*, • *Incrementalism contains its own political risks because it tends to offer small solutions for large problems*, • *Seen as discouraging activities, while closely associated with rationality*, • *While intended to be prescriptive, it is devoid of behavior rules*, • *Inefficient when correcting a course of action that proves to be inappropriate*” (Brooks, 2002: 102).

vision (Etzioni, 1973; Alexander, 1992; Brooks, 2002). Brooks points out that the *mixed scanning* strategy was intended as “a compromise between the rational and incremental approaches” and the key element was its distinction between “*contextuating*” decisions (fundamental policy making) and “*bit*” decisions that were focused more on implementation. In sum, the *mixed scanning* planning model considered the micro-level and macro-level contexts of planning; it was addressing comprehensiveness as a vision rather than a fixed blue print plan.

The centralized top-down approaches of incrementalism (*DIP*) and mixed scanning, as well as the *RCP* model did not proactively address and define the stakeholders in the process and would most likely exclude the less powerful (Brooks, 2002; Campbell & Fainstein, 2003).

2. Socio-Political Planning Paradigm

The *Socio-political* planning paradigm evolved in response to the shortcomings of the central top-down main stream planning in addressing social objectives, especially those of the lower income community. Parallel to the evolution of main stream *RCP* models, social planning evolved in the 1960s, focusing more on the social needs and social interaction (welfare, health, education, and labor) than the physical environment (Alexander, 1992). The traditional cost-benefit evaluation model, that used to include exclusive economic criteria, started to incorporate social criteria to combine economic efficiency with social costs and benefits (Alexander, 1992; Litchfield, 1996). In the beginning, social planning still assumed central authority and therapist-planner which in a way undermined the potential for public participation in decision making. However, social planning had a great impact on achieving social objectives.

In addition, the negative impacts of mainstream planning on the disadvantaged local residents and other interest groups, raised the importance of social equity planning and advocacy planning for such groups, as well as raising the notion of citizen participation in deciding the future of their environments (Alexander, 1992; Arnstein, 1969; Davidoff, 2003; Friedmann, 1995; Krumholz, 2003). In these planning models, the role of the planner started to shift from the technical expert toward an advocate for the disadvantaged groups and a mediator between them and the other stakeholders in the process.¹⁴⁸

In the context of *advocacy planning*, Davidoff (2003: 212) called for pluralism in planning, including all representative groups in society rather than “*Unitary Planning*”

¹⁴⁸ Arnstein (1969: 217) outlined that “*citizen participation is a categorical term for citizen power. It is the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future.*”

performed merely by the government. He asserted that advocacy of alternative plans by interest groups outside the government, would stimulate planning in a number of ways including better informing the public of alternative choices, forcing the public agencies to compete with other planning groups to win political support, and improving planning practices by making critical groups more conducive to producing better plans, rather than just being critical. He outlined the expected sets of organizations to be engaged in plural planning, including local political organizations, special interest groups, and ad hoc protest associations that may form in opposition to some proposed policy. Furthermore, Davidoff (2003: 219) advocated for an inclusive definition of the scope of planning to include social, economic, and political planning in addition to the traditionally used physical planning that was emphasized with bias.¹⁴⁹

Brooks (2002:114) points out that advocacy planning “*remains a strong element in the language and culture of the planning profession, even if it appears in forms that depart rather sharply from those originally conceived by Davidoff.*” However, “*it does not provide us with a planning strategy, complete with a set of instructions.*” In conclusion, advocacy planning is not a standalone approach, but a socio-political component that is part of the overall planning process.

Along the path of Advocacy Planning, Krumholz (2003) addresses ***social equity*** and ***social justice*** as objectives in local economic development planning, focusing on fostering socio-economic benefits for lower income local residents. Krumholz outlines that local economic development (LED), even though may seem successful in general, may fail to improve the quality of life of many local residents, especially the low income poor unless deliberate planning and linkage programs are set-up to achieve equitable redistribution of socio-economic benefits resulting from LED.¹⁵⁰

In essence, equity planning has emphasized certain socio-economic and socio-political objectives, and pertinent processes within local economic development. However, it did not entirely change the development planning process. The proposed ideas are relatively more

¹⁴⁹ In the context of city planning, Davidoff outlines that “*a city is its people; their practices; and their political, social, cultural, and economic institutions as well as other things. The city planner must comprehend and deal with all these factors... An expanded scope reaching all matters of public concern will not only make planning a more effective administrative tool of local government, it will also bring planning practice closer to the issues of real concern to the citizens*” (Davidoff, 2003: 220).

¹⁵⁰ A major element of redistribution of socio-economic benefits was to establish linkage programs (especially in publicly assisted development) and the approval authority would require, as part of approval, the fulfillment of the desired socio-economic objectives like provision of social housing and jobs for local residents (Krumholz, 2003: 230). Krumholz points out that “*resources and power are concentrated among political and civic elites who prefer to control development for their ends within a centralized, top-down economic development model*”.

applicable to public planning which may also require some legal amendments to allow for broad inclusionary participation in the planning process. In conclusion, social equity planning is only another component that needs to be addressed in the overall planning process.

Along similar lines of advocacy and equity planning, there have been emerging planning models in the direction of ***planning as social learning*** and ***social mobilization***, advocating for a bottom-up approach to planning and focusing more on the social and political contexts of planning (Friedmann, 2003: 76; Friedmann, 1987: 181). ***Participatory or transactive planning*** is an example of the social learning model, which focuses on planning as social practice and links knowledge with action in a social learning context.

The ***transactive planning*** model is characterized by the local task group's participation, collective decision making, an interactive and cumulative social learning process through the intact experience and face-to-face contact, including cognitive and experiential aspects of learning (Friedmann, 1987: 159,186). The role of the planner, as well as of each of the task group members, is both as an actor and learner in the process. This approach has more emphasis on processes of personal and organizational development, potentially for community residents and their involvement in the planning process.¹⁵¹

Even though the emphasis is socio-political that is inclusive of the disempowered groups, Friedmann acknowledges the multiple component problem context of planning, the need for combining expert (planner's technical) knowledge and experiential knowledge resulting from all parties involved in the participatory process, as well as the critical feedback from evaluation. In conclusion, participatory planning represents the socio-political stage which is a component in the planning process.

Within the general framework of planning as social learning, the importance of interactive and collective decision making among concerned parties fostered ***communicative/ collaborative planning*** and the need for ***stakeholders' collaboration and partnership*** including the public sector, private sector and community groups (Margerum, 1997; Healey, 2003; Innes,

¹⁵¹ Friedmann (2003: 77) advocates for a "Non-Euclidian Mode of Planning" that is: • "***Normative*** - the ideals of inclusive democracy, giving voice to the disempowered, integrating disempowered groups into the mainstream of economic and social life while preserving cultural diversity ..., • ***Innovative*** - looking toward creative solutions to the social, physical, and environmental problems that rise to political consciousness in the public domain, • ***Political*** - planning takes place in real time, knowledge and action are so tightly looped that they appear not as two separate processes but as one, • ***Transactive*** - two kinds of knowledge are especially pertinent in the search for solutions: expert and experiential knowledge, • ***Based on Social Learning*** - an open process with two main characteristics: critical feedback and a strong institutional memory."

1995; Briassoulis, 1989). In the context of research in human ecology and planning, Nelson asserts and outlines the need for an *interactive and adaptive approach to planning and research*, which is characterized by the involvement of an array of interested/concerned groups bearing different values, and with frequent changes in the research context (Nelson, 1991).¹⁵²

In the context of *communicative planning* and its implications for spatial strategy formation, Healey (2003) asserts the need for participatory collective decision making in planning, rather than the intuitive instrumental technical rational planning.¹⁵³ Healey provides ten characteristic points for the emerging *communicative planning* model.¹⁵⁴ For this model, Healey proposes the following five sets of questions/ideas for participants to address through an inclusionary argumentation process, which she admits that there is parallel with the step-by-step models of conventional rational planning processes:

1. *Arenas for Argumentation*..... (Stage Preparation-Analysis)
2. *The Scope and Style of Discourse*..... (Content Preparation-Analysis)
3. *Sorting through the Arguments* (Analysis)
4. *Creating a New Discourse* (Design/Synthesis)
5. *Agreement and Critique* (Evaluation)

Healey also mentions that “*a strategic policy discourse needs to be subjected to continual reflexive critique,*” which is similar to “Monitoring” that is applied in the rational planning process. Implementation” is not addressed in the proposed *communicative planning* process.

It appears that it is only the participatory decision making setting for all the stages mentioned above that is different from the *rational* decision process. Therefore, the disagreement with the rational planning model appears to be with the “instrumental, technical, bound, top-down” aspects rather than the “*rational*” aspect of the planning process. This planning model

¹⁵² This approach highlights the importance of an interactive research setting with concerned groups to incorporate various types of knowledge including social knowledge as well as adapting the research context to the ideas, concerns, and values of the concerned groups (Nelson, 1991: 114).

¹⁵³ Healey briefly outlines that “*Planning, as an explicit exercise in imagining the future, is thus about ‘dreaming the possibility of change’, imagining how to ‘start out on a journey’ in mutually acceptable ways, rather than, as in the ideas of the urban designer planners, ‘dreaming the destination.’ If there is a destination implied, it is a process dream, of a democratic society which respects difference but yet collaborates, and which can live sustainably within its economic and social possibilities and environmental parameters*” (Healey 2003: 242).

¹⁵⁴ The ten characteristic points are briefly as follows: “*1. An interactive and interpretive process, 2. undertaken among diverse and fluid ‘discourse communities’, or cultures, 3. in ways which requires ‘respectful’ interpersonal and intercultural discussion, and focuses our attention on: 4. the arenas where public discussions take place ..., 5. multiple claims made for policy attention ..., 6. ways of developing a critical, reflexive capacity which has both evaluative and creative potential..., 7. ways of opening out such strategic discourse in forms which are as inclusionary as possible ..., 8. participants will learn new things about themselves, their relations, interests, values, and understandings ..., 9. participants will collaborate to change the way things are..., 10. Planning, as an explicit exercise in imagining the future,*” (Healey 2003: 242).

applies multiple/mixed rationality context rather than mere technical, individualistic, authoritative rationality. As outlined, this planning model is part of the political component.

Also, Healey advocates for a democratic planning practice, but does not outline whether it is within a capitalist or socialist democracy government system. The proposed communicative planning model does not address application in a real world (like brownfield redevelopment) or whether it is to be applied to the developer's planning process, or to the public (approval authority) planning process, or both. In either case, and especially within a capitalist democracy, it would require major legal changes/adjustments in the planning system in order to institutionalize the proposed communicative planning model. However, one potentially viable area of application may be within the public participation process.

In brief, the main issues that emerge from the above outline of the socio-political paradigm include the need for a collaborative democratic process involving the main stakeholders (public, private and community), an organizational set-up for the collaborative process, and to include the social, economic, environmental and political components of planning in addition to the traditional physical planning.

3. Ecological Planning Paradigm

The *Ecological* planning paradigm emerged in response to shortcomings of the main stream planning paradigm. **Environmental and resource planning**, which emerged in the late 1960s and early 1970s as a result of the rising importance and concern about the natural environment and the ecological impacts of development (Alexander, 1992; Hodge & Gordon, 2008; Slocombe, 1993; McHarg, 1969).¹⁵⁵ The aim of environmental planning was to ensure ecological systems were considered in development planning. In the context of environmental and resource planning in Canada, Nelson and Serafin assert the need for a **civic's approach**, which stresses the understanding and active involvement of concerned people with varying backgrounds, interests and values and within a participatory, interactive and adaptive process (Nelson & Serafin, 1996).

The growing knowledge in ecology in general, and ecosystem sciences in particular, advanced an impetus towards the adoption of an ***ecosystem approach*** to development planning, which was aimed at the integration of biophysical and socio-economic activities with input from many disciplines in order to support sustainability (Slocombe, 1993; Royal Commission, 1992).

¹⁵⁵ In the U.S. and Canada, the ecological paradigm was triggered by the enacted mandatory requirement for an environmental impact assessment/statement (EIA and EIS) for special projects (Hodge & Gordon, 2008; Slocombe, 1993; Alexander, 1992).

The ecosystem approach to planning places more emphasis on the ecological setting (natural environment) as the dominant component to control development and the socio-economic setting (built environment) as a complementary component. Even though it considers people being within a participatory process, it does not explicitly define and include the political organizational setting for stakeholders.

The planning concept of sustainable development emerged as a result of the critical environmental impact of development and a crucial need to achieve environmental sustainability along with the socio-economic development processes. The aim was to achieve balance and integration among community interests, economic development, and environmental sustainability with an ultimate goal of healthy environment (Slocombe, 1993; Royal Commission, 1992; Breheny, 1992; Campbell, 2003; Hodge & Gordon, 2008) (Exhibit 3.3). The concept evolved with the aim to achieve a balance of among the goals and sustainability for the three components of environmental, economic and social sustainability.

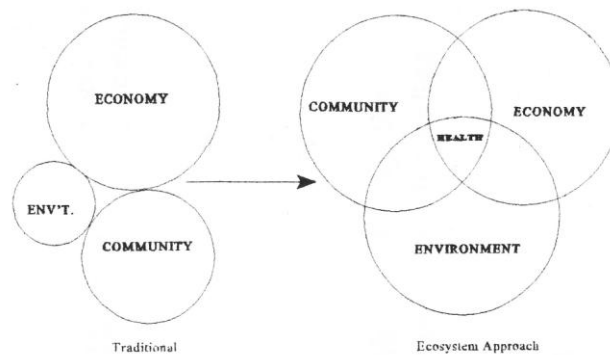


Exhibit 3.3: The Shift from Traditional to Ecosystem-Based Decision-Making
(Royal Commission, 1992:35)

Several definitions emerged for the elusive concept of sustainable development addressing the desired objectives including social, economic, and environmental objectives; however, there was no clear definition of a planning strategy for how to achieve sustainability. The United Nations World Commission on Environment and Development Brandtland Report (1987) defines sustainable development as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*”¹⁵⁶ The basic

¹⁵⁶ Another definition that is focused on agriculture and natural resources states that “*sustainable development is the management and conservation of the natural resource base and the orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generation. Such sustainable development (in the agriculture, forestry and fisheries sectors) conserves land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable*” (FAO 1988).

criterion for environmental sustainability is the carrying capacity of the ecosystem to withhold certain level(s) of development without any major irreversible impact.

In this regard, Campbell (2003: 447) states that “if ‘crisis’ is defined as the inability of a system to reproduce, then sustainability is the opposite: the long-term ability of a system to reproduce. This criterion applies not only to natural ecosystems, but to economic and political systems as well.” Campbell depicts sustainable development in the form of a triangle with the three corners being the three major components (social, economic, and environmental) with their pertinent sets of goals of social justice/equity, economic growth and efficiency, and environmental protection (Exhibit 3.4). The sides of the triangle represent the resulting interactive conflicts between each two components/goals as follows:

- *Property Conflict: Economic Growth versus Social Equity/Justice (Capital-Labor)*
- *Resource Conflict: Economic Growth vs. Environmental Protection (Capital-Resource)*
- *Development Conflict: Social Equity versus Environmental Protection (Labor-Resource)*

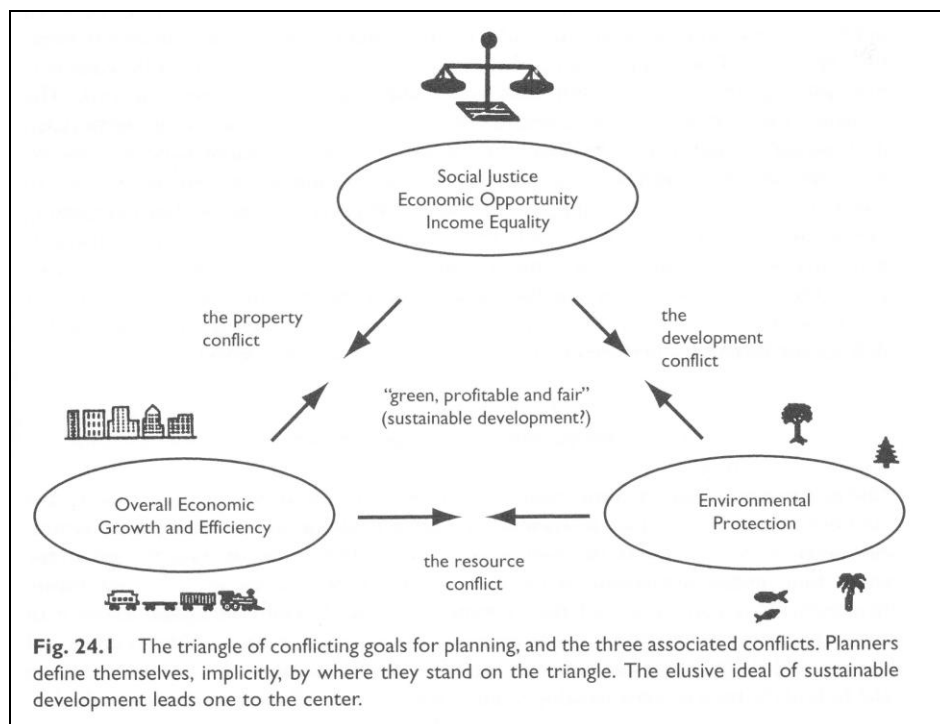


Exhibit 3.4: The Triangle of Conflicting Goals for Planning (Campbell, 2003, Fig. 24.1)

Sustainable development will be in the middle of the triangle representing the balance of the three goals and a form of trade-off for conflict resolution. Campbell points out that “to achieve complete sustainability across all sectors and/or all places, however, requires such complex restructuring and redistribution that the only feasible path to global sustainability is likely to be a long, incremental accumulation of local and industry-specific advances.” In other

words, sustainable development is a long-term ideal goal or condition and the aim is to approach it rather than achieve it. Campbell proposes general procedural and substantive paths towards sustainable development. The procedural paths include:

- *Conflict Resolution* by establishing common grounds at the negotiation table
- *Redefining the Language of the Conflict* by bridging the chasms between the languages of economics (incentives and marginal rates), environmentalism (carrying capacity and biodiversity), and social justice/equity (housing rights, empowerment, and discrimination)
- *Political Pluralism* by letting the political arena decide conflicts either directly or indirectly
- *Develop Market Mechanisms* to link economic and environmental priorities/goals

The substantive paths to sustainable development include:

- *Land Use and Design*, given that *planners have substantive knowledge of how cities, economies, and ecologies interact*
- *Bioregionalism*, given a *comprehensive vision of sustainable land use is bioregionalism*
- *Technological Improvements*, such as alternative fuels and conservation mechanisms (Campbell, 2003: 448).

Campbell outlines that the individual approaches have shortcomings and that combining procedural and substantive strategies can achieve both political and substantive progress in the environmental-economic-social crisis.

As outlined above, sustainable development addresses multiple interactive components (social, economic, and environmental), but it does not explicitly address the political organizational component as well as the physical/functional component.¹⁵⁷ The political and physical-functional components are relatively big and cannot be easily reduced and fused within the three components setting for sustainable development. Addressing these two components individually and together with the other three components will yield more potential connectivities amongst components. It is important to note that the goals of all three components of sustainable development, even though competitive in nature, are considered without dominance of one component on the others with the aim of achieving balance and integration among components' goals and sustainability.

3.1.3 Notes and Conclusions on the Evolution of Planning Models and Paradigms

The various streams of planning paradigms represented by the procedural and substantive settings including physical-economic development planning, socio-political planning, and environmental ecosystem based planning, each has relatively more emphasis on its pertinent setting. However, these paradigms are also interrelated and complementary to each other in the

¹⁵⁷ Some notions of the political component are mentioned in the general procedural path toward sustainability (like conflict resolution and political plurality). Also, some aspects of the physical-functional component are mentioned in the general substantive path to sustainability (like land use planning and urban design).

evolutionary process leading to a common stream in planning represented by the emerging **integrated multi-disciplinary planning paradigm** that combines the various sectors and which has been characterized as being holistic, participatory, interconnected, goal oriented, multi-disciplinary and strategic (Margerum, 1997; Nelson & Serafin, 1996; Slocombe, 1993; Briassoulis, 1989) (Exhibit 3.2). This emerging paradigm is an inclination back to the notion of comprehensiveness in planning.

3.2 APPLIED PLANNING & OTHER RELATED INTERDISCIPLINARY THEORIES

Contributions of theories and concepts in urban geography, applied planning, as well as theories from other related disciplines are included in Appendix A3.2. The following is a synoptic synthesis of the main contributions of those theories to this research.

3.2.1 Inner City Functional Transformation

The problem of inner city blighted industrial sites can be explained by the spatial and functional restructuring of industrial activity. Basically, the manufacturing function that used to be within the inner city has been moving to the suburbs and peripheral locations, leaving old and obsolete industrial plants vacant/abandoned within the inner city (Jakle & Wilson 1992; Stafford, 1982; Yeates, 1998). Furthermore, there has been an industrial shift in share from the manufacturing sector to the tertiary sector (services, public and private) and quaternary sector (offices). Inner cities are becoming more attractive to service and office functions than to manufacturing functions. This inner city functional transformation is important in establishing the site reuse and redevelopment strategy and in selecting the appropriate and viable functions.

Another critical problem, especially for some medium size cities, is the lower competitive economic market of the inner city vis-a-vis a more competitive suburb (Broadway, 1995; Filion & Bunting, 1993 & 2006). This will be an obstacle to site reuse and redevelopment in attracting some functions. The added cost of environmental cleanup of blighted contaminated sites (brownfields) will further exacerbate the problem of lower competitive market for site redevelopment vis-à-vis greenfield development.

3.2.2 Inner City Decline and Regeneration

Inner cities have been going through a cycle of decline and regeneration (Bourne, 1982; Broadway, 1995). Ley & Frost (2006: 194) point out that “central-city neighborhoods display considerable diversity and classify inner-city districts into four areas according to processes of identifiable change which include areas of *“decline, stability, revitalization, and massive*

redevelopment.” This cyclical context can affect the redevelopment market of blighted site reuse and redevelopment. And vice-a-versa, successful inner city projects may play an important role in fostering the inner city redevelopment market. Generally speaking, the inner city is a macro-level context in relation to the micro-level context of a brownfield site. This interactive setting between macro-level and micro-level spatial and functional contexts represents an important theme in planning for revitalizing each context individually or collectively.

3.2.3 Intra-urban Form and Development

Intra-urban form is evolving, in actual development or in planning vision, into relatively increasing densities and re-urbanization, mixed land uses, increasing social heterogeneity, equitable access to public goods, reintegrating labor markets, cooperative governance with local empowerment, increasing sense of community and sense of place (Bourne, 1996). Physical urban form theories, including those for “*good city form,*” are concerned with designing and assessing spatial form and process with emphasis on the interrelationship between human behavioral and physical settings (Kaiser et al, 1995: 42; Lynch, 1984; Alexander, 1987; Barnett, 2003). Lynch (1984) outlines performance dimensions and process for “*Good City Form*” including: *place vitality, sense of place and event, fit between spatial/temporal and behavioral patterns, access, control, efficiency, and justice.*¹⁵⁸ For redesigning cities and urban areas, Barnett (2003: 4) proposes five principles including “*Community, Livability, Mobility, Equity, and Sustainability*”.¹⁵⁹ Trancik (1986) asserts the need for reclaiming and reintegrating lost urban space within the existing urban fabric through the application of urban design theories that emphasize physical urban form and sense of place. Those evolving characteristics of intra-urban form, urban design theories and performance dimensions, represent important themes in overall contextual planning-design guidelines for site reuse and redevelopment.

3.2.4 Heritage Conservation Planning

Historical evolution of urban settings and heritage sedimentation is a value that has to be considered and realized in planning for redevelopment within urban areas. In general, heritage

¹⁵⁸ The definition of those performance dimensions for “*Good City Form*” is as follows: *place vitality* (sustainable, safe, biologically consonant), *sense* (identity of place, event and structure), *fit* (between spatial/temporal patterns and human behavioral pattern), *access* (to people, activity, place, and resources), *control* (of human space, rights and regulation), *efficiency* (internal and external), and *justice* (equity, equal access) (Lynch, 1984).

¹⁵⁹ The main featuring elements of each principle are as follows: 1. *Community – life takes place on foot* (walkability); 2. *Livability – urbanism old and new*, heritage preservation; 3. *Mobility – parking, transit & urban form*, transit oriented design; 4. *Equity – deconcentrating poverty, affordable housing, & environmental justice*; 5. *Sustainability – smart growth versus sprawl* (Barnett, 2003).

preservation was ignored by the modernist movement during the twentieth century and many historical buildings/structures were demolished in urban redevelopment. However, heritage advocates with public support managed to preserve threatened heritage buildings which were then incorporated within the redevelopment process (Hodge & Gordon, 2008: 117, Barnett, 2003: 36). Conservation of heritage buildings and sites may be achieved through heritage easements between the municipal approval authority and the developer; however, this agreement has to include a form of financial bonus provided for the developer in order to balance the cost of heritage conservation.¹⁶⁰ Also, historic districts were preserved through federal regulation that included guidelines for their establishment and the preservation of individual buildings and a National Register of Historic Places was established accordingly (Barnett, 2003: 266). An important theme in the reuse and redevelopment of blighted sites that have heritage values is a balance between heritage conservation and new development innovation.

3.2.5 Smart Growth

The planning concept and approach of “Smart Growth” emerged in response to problems of urban sprawl, infrastructure inefficiency and energy consumption, declining air quality, increasing road congestions, and ultimately consequential impacts on global warming. In a way, “Smart Growth” was the result of combining ideas of sustainable development, New Urbanism, and infrastructure expenses. It was established in the mid-1990s by the US Environmental Protection Agency and Congress for the New Urbanism - CNU¹⁶¹ (Hodge & Gordon, 2008: 126). Smart Growth includes three essential elements - *“first, policies to discourage the continued conversion of rural land at the edges of metropolitan areas; second, finding ways to make infill development and the restoration of older areas more attractive to investors and consumers; third, knitting the metropolitan region together with transportation systems that reduce dependency on automobile trips”* (Barnett, 2003: 79). “Smart Growth” advocates for urban intensification including brownfield redevelopment, and compact suburban development and preservation of ecological systems, as well as a direction toward more emphasis on mass transit

¹⁶⁰ The financial bonus may be in the form of added development density given to balance the cost of desired level of heritage conservation.

¹⁶¹ New Urbanism emerged in 1993 in response to problems of inner city decline and senseless suburban sprawl. New Urbanism stands for restoration of existing urban centers and towns within coherent metropolitan regions, recognizes that physical solutions by themselves will not solve social and economic problems, and advocates for neighborhoods to be diverse in use and population, communities to be designed for the pedestrian transit as well as for the car, cities and towns to be shaped by physically defined and universally accessible public spaces and community institutions, and urban places to be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice (CNU, 2001).

and less reliance on the private automobile (Hodge & Gordon, 2008: 126). Some metropolitan areas (like Portland Oregon) have adopted an urban growth boundary program which in a way controlled urban growth within certain limits at the metropolitan fringe (Barnett, 2003: 79). The State of Maryland, U.S. adopted “*Priority Funding Areas – PFAs*” as a strategy for containing urban growth by directing state spending to areas designated by local governments and reviewed by the state (Lewis et al, 2009: 457). The attempt was to consolidate and intensify existing urban areas and to control suburban sprawl.

Given this outline, brownfield redevelopment is an important “Smart Growth” strategy in terms of reducing urban sprawl and potential approach for urban intensification.¹⁶²

3.3 CHARACTERISTICS OF AN EMERGING PLANNING PARADIGM & MODEL

The synthesis of main contributions of general planning theory and related interdisciplinary theories conveys an emerging planning paradigm and model that is in the direction of combining the three main contexts of planning paradigms including the main stream physical and economic development planning, socio political planning and environmental planning. The main characteristics of the emerging planning model are as follows:

- ***In general, the emerging planning model is a hybrid that is holistic, multidisciplinary, integrative, and adaptive planning.*** The emerging planning model is combining certain key elements from the three main contexts of planning paradigms and models. The proposed planning model includes the main five components of the reuse/redevelopment of blighted industrial sites namely, physical, ecological/ environmental, economic, social, and political. The classification into these components reflects the distinct issues within each component, and the pertinent planning sub-process(es) required for each component. However, planning needs to be addressed at the component sub-process level and the overall multiple component process level. The emerging planning model is multidisciplinary including multiple fields of planning and design as they relate to the different components, the social sciences in general, engineering sciences, as well as normal sciences.

The notion of integrative planning reflects the need to link the planning/decision making processes within the different disciplines as well as within components so that related goals and

¹⁶² As outlined in the NRTEE 2003 National Brownfield Redevelopment Strategy “*every hectare developed in a brownfield project can save a minimum of 4.4 hectares of greenfield land from being developed in an outlying area,*” and “*every hectare of brownfield redeveloped for residential purposes can save as much as \$66,000 a year in transportation costs (relative to equivalent greenfield development)*”(NRTEE, 2003: 3).

objectives are achieved simultaneously. In a complex planning reality with numerous factors including time limitation, it is difficult, if not impossible, to design perfect linkages among all planning/decision processes. However, when looking at the overall analytical planning framework, the major interrelated issues and problems among components usually emerge, which indicates a point of emphasis for integration. The intermittent objective will be to define major linkages among problems/objectives within planning components.

The notion of being adaptive relates to three major areas of application. The first area is to adapt to uncertainty within the planning process, which includes adapting to newly emerging or unforeseen factors, as well as adapting to variability of factors over time and place contexts. The second area of application is to adapt to and/or preserve contextual values as in the adaptive reuse of existing resources of blighted industrial sites. The third area is to adapt to views and values of the main stakeholders in the process which may be conflicting.

- **The planning approach employs mixed rationality at different dimensions**

In terms of reasoning, planning follows the rational decision making process at least at the component or sub-component level. At this level, the planning process includes the consolidated stages of analysis, synthesis, evaluation, implementation, and monitoring. Given multiple components (multi-disciplinary) context, multi-spatial context, and multi-stakeholder context, the planning approach is based on mixed rationality that addresses these three multiplicity dimensions of the problem context.¹⁶³

- **The planning approach is incrementally adaptive problem solving process with a comprehensive vision.** This has some relevance to the mixed scanning model and partly to the comprehensive model.¹⁶⁴ The notion of being adaptive, as mentioned earlier, relates to uncertainty of impinging factors, different stakeholders' views, as well as to the adaptive reuse of building and site resources in relation to all components.¹⁶⁵

The process is implemented in incremental and progressive phases in order to handle the overall complex problem components in smaller scale and manageable packages, to build

¹⁶³ mixed rationality includes technical rationality of planners in the pertinent multiple disciplinary, as well as multi-stakeholders' rationality including the public sector, private sector, and the local community.

¹⁶⁴ See Etzioni, (1973) *Mixed Scanning: A 'Third' Approach to Decision Making*.

¹⁶⁵ For instance, the process is adaptive to the architectural heritage of existing buildings and sites, to restoring the natural environment, to the surrounding social context, to the economic context in terms of optimal utilization resources and project feasibility, as well as to different stakeholders' views (public, private, and community).

development momentum and to complete the other packages (both financially and socio-politically), as well as to foster the marketability of the whole project.

- **The approach is interactive and integrative in terms of the nature of impinging problem components as well as their alternative planning sub-processes.** This draws partly from the rational comprehensive model and partly from the concept of sustainable development. The problem components of blighted industrial sites are interactive in nature, like the problem of environmental contamination and legal liabilities vis-a-vis economic feasibility, project marketability, availability of start-up funding, in addition to the different values and objectives of main stakeholders. Having an interactive problem context necessitates an integrative planning approach in resolving the complex problem collectively, taking into consideration the nature of linkages among different problem components that will be the main basis for integrating the pertinent planning sub-process.

- **The approach is collaborative and participatory in terms of forming stakeholders partnerships among the public sector, private sector, and the community.** This draws from the transactive participatory model as well as from the interrelated communicative model emphasizing the importance of stakeholders' communication, collaboration and partnership.¹⁶⁶ Stakeholders' collaboration and partnership may include various forms like, public-public, public-private, and public-private-community. This includes stakeholders' commitment to one or more of various issues relating to the reuse and redevelopment process like financing, marketing, redevelopment, and expediting the approval process.

Collaboration and partnership among the public-private-community is in essence a blend of and resemblance to capitalist democracy. Even though there are conflicting objectives/values between the private property owner/developer and community groups, like property conflict (Campbell 2003), and disparities in their relative decision making power regarding project planning, the public sector as a regulatory planning and approval authority should address bridging this gap to achieve the collective partnership. Anyway, the original mandate of the public sector is to serve the public interest in plural terms.¹⁶⁷

¹⁶⁶ See Brooks (2002), Friedmann (1987), Healey (2003), Innes (1995), (1996), and Innes and Booher (1999).

¹⁶⁷ In reality there is a considerable gap between public sector achievements in the public interest vis-à-vis real community interests and needs. That was the reason for advocacy planning and equity planning movement that emerged in the 1960s and continued (Davidoff, 2003; Krumholz, 2003). This is also the same reason now for emphasizing the role of community in a public-private-community collaboration and partnership.

CHAPTER FOUR: PRELIMINARY RESEARCH FINDINGS & DIRECTIONS FOR EMPIRICAL RESEARCH

4.1 PRELIMINARY CONCEPTUAL PLANNING FRAMEWORK:

The research goal is to achieve an understanding of the complex problem context of brownfield site reuse and redevelopment as well as to develop the pertinent planning framework and approach for redevelopment. In general, and for a given brownfield redevelopment project, planning is primarily carried out by the project developer (private or/and public) and related consulting team. It is also carried out by the public sector approval authority (mainly the municipality) which includes public planners and other professionals who are primarily involved in the development approval process including environmental remediation approval. The public sector municipality, or related public development corporation, may take the role of the project developer for part of the project (like site remediation), or for the entire site redevelopment process. Local community residents and groups are mainly involved during the public participation and consultation process.

The planning framework for brownfield redevelopment may be represented in the pertinent problem context, potential policy directions, and characteristics of the overall planning process. The following research findings address the holistic planning process as collectively performed by the project developer, public approval authority, and community residents and groups. These findings may be envisioned as preliminary hypotheses to be further studied and examined within empirical field studies. The findings may be summarized in the following main characteristics of the problem context, main policy directions, and planning process:

- *Multiple-Component Interactive Problem Context*
- *Multiple Planning Sub-processes within Components Constituting the Overall Process*
- *Tentative Policy Directions within Problem Components Representing Strategy Solutions*
- *The Planning Process Employs Mixed Rationality*
- *Implementation Packages and Distribution of Primary Stakeholders' Responsibility*
- *Planning Process at Two-Levels*
- *Multiple-Component Integrative Planning Approach is Necessary*

4.1.1 Multiple-Component Interactive Problem Context:

Preliminary research findings reveal that the context of blighted/contaminated industrial sites consists of interactive problem components, which may be consolidated in the physical-functional, environmental-legal, economic, social, and political components (Exhibit 2.5). Each problem component may consist of sub-components that can be significant in a given context,

like built heritage as part of the physical component, which may be addressed as a separate component. In an existing brownfield site context, the interactive problems implies a continuous added cost (negative impact) for all major stakeholders including economic loss of use and negative fiscal impact, threats of environmental contamination, social inequity issues and stigma. On the other hand, the redevelopment of a brownfield site would potentially add value, given proper packaging for the project. The main planning issues to consider in this regard include:

- Identifying major linkages - both inter-component as well as intra-component
- Addressing all problem components individually & collectively including major linkages
- Addressing (in the beginning) the five components on equal basis. After multiple component contextual analysis, relative importance of main linkages/factors will emerge.

Identifying the major linkages will give a better understanding of the problem context and will be the basis for setting a course of action. Inter-component problem linkages (like type of environmental contamination, cost of site remediation, and project economic feasibility) can be as important as intra-component problems (like environmental contamination versus legal liabilities). The causal relationships are non-linear, but rather multi-directional and interactive. One major example of such linkages is the problem of contamination that can affect legal liabilities, project cleanup cost, financial feasibility, stakeholders' interests and objectives, proposed land use functions, and social equity and justice. The type, nature, and magnitude of interactive linkages may vary according to the project context. Accordingly, it is important to define the contextual interactive linkages among components in order to set-up a package plan for the given problem context.

An analogy of *multiple component context* is sustainable development that is usually referred to as addressing three components including the environmental, economic and social component. I would argue that adding the physical-functional and the political-organizational components to the problem context is critically important because they represent relatively large number of issues. Not addressing them explicitly in the component analysis and synthesis will most likely conceal many important linkages.¹⁶⁸ Addressing the political component explicitly

¹⁶⁸ For instance, "Capitalist Democracy" (as outlined in Foglesong, 2003) is an important economic-political concept and link that represents a given constitutional setting in countries like Canada and the U.S. However, it is not clearly reflected in the triangular diagram of sustainable development (Exhibit 3.4 by Campbell 2003: 237) that includes the three main goals of economic growth and efficiency, social equity/justice, and environmental protection. In Campbell's diagram, "Capitalist Democracy" is reduced to the "Property Conflict" between the poles of "Economic Growth and Efficiency" and "Social Equity/Justice" (also simplified to capital-labor conflict). The entire political component is reduced and embedded within the social component. However, somewhere else,

will allow clearer vision to inter-component linkages, as well as intra-component issues like stakeholders’ organizational setup and partnerships among the private sector (developer), public sector (approval authority) and community residents and groups.

In the beginning of the planning process, it is important to address all problem components on equal basis. Unlike most planning approaches/models outlined in the Chapter Three, the proposed multiple component integrative planning framework is to address multiple components without prior bias or predominance of certain component(s) on the rest.¹⁶⁹ However, multiple component contextual analysis may reveal certain issues or components being relatively more important in a given project context, and in this case it makes sense to consider them accordingly. Part of the contextual analysis would be considering stakeholders’ interests, values and objectives in a participatory/communicative process.

4.1.2 Multiple Planning Sub-processes within Components that Constitute the Overall Planning Process:

In response to the problems and issues of each component, there is a specific planning sub-process (or sub-processes) that aim at resolving the pertinent problems as well as achieving other related objectives. The planning sub-processes of all components are in a way interrelated and complementary to each other and, all together, they form the overall-planning process.¹⁷⁰ The major planning sub-processes and the pertinent problem components are outlined in Exhibit 4.1:

Exhibit 4.1: Problem Components, Main Interactive Issues/Problems & Their Respective Planning Sub-processes		
Problem Components	Main Interactive Issues and Problems	Planning Sub-processes, Potential Plans and Visions
1. Environmental Legal Component	<ul style="list-style-type: none"> • Environmental contamination of sites and buildings • Environmental health hazard for human & natural ecosystems • Legal liabilities of contamination and decontamination (current & future liabilities and real and perceived liabilities) 	<ul style="list-style-type: none"> • <u>Site remediation & restoration planning</u> • Watershed plan/planning • Ecosystem planning in general

Campbell proposes political approaches to resolve conflicts between the three mentioned poles like applying political pluralism and establishing common grounds in conflict resolution.

¹⁶⁹ Findings from the literature review and evolution of planning theory revealed that main stream planning (rational comprehensive model) was more focused and biased toward physical and economic development as the dominant ones which resulted in negative social and environmental impacts. The New Urbanists recognize that “*physical solutions by themselves would not solve social and economic problems*” (CNU, 2001).

¹⁷⁰ For example, environmental regulation stipulates that no development is allowed on contaminated sites unless an approved environmental process is carried to secure that the level of contamination will be within legal limits (MOE, 1997). The level of site remediation affects and is affected by the type of proposed land use functions.

2. Physical-Functional Component	<ul style="list-style-type: none"> • Vacant, abandoned, or underutilized buildings and sites • Structural/physical dilapidation of buildings/sites • Deterioration of physical infrastructure networks • Declining environmental image of the area and inducing social and economic problems • Urban heritage values that are not properly utilized 	<ul style="list-style-type: none"> • <u>Physical-Functional planning:</u> • Land use planning • Urban design • Site planning, architectural design, heritage conservation & reuse of existing buildings.
3. Economic-Financing & Marketing Component	<ul style="list-style-type: none"> • High cost of site remediation and preparation which may exceed the real estate value of the site • High cost of building renovation and restoration • Scarcity of public funding and high cost of private financing • Declining property values and tax base • Declining economic market of the area • High costs & risks make project perception economically not feasible & drives developers to greenfield development 	<ul style="list-style-type: none"> • <u>Project financial and investment planning</u> • <u>Project Marketing planning</u>
4. Social Component	<ul style="list-style-type: none"> • Abandoned buildings and sites are potential areas for social abuse, vandalism & crime (no man's land) • Declining environmental image and stigmatization of the area especially when close to residential communities • Negative socioeconomic impacts on local residential communities creating problems of social inequity/injustice¹⁷¹ • The existing low educational & skill levels & high rate of unemployment among residents further enhances access problem to newly generated socioeconomic opportunities. 	<ul style="list-style-type: none"> • <u>Social equity planning (socioeconomic development and accessibility to newly generated opportunities)</u> • Safe community planning • Social and psychological context and the built environment (environmental sociology and psychology)
5. Political - Organizational Component	<ul style="list-style-type: none"> • Conflicting/competing goals, interests, and values of primary stakeholders • Imbalances of power distribution in decision making process • Insufficient or lacking trust among stakeholders • Lack of organizational and collaborative commitment among stakeholders toward resolving the problem 	<ul style="list-style-type: none"> • <u>Stakeholders' organizational planning including collaboration, partnerships, and the public consultation process</u> • This includes public-public, public-private, and public-private-community forms of collaboration & partnerships

The overall planning process is a form of integration of multiple component sub-processes that is based on addressing the main linkages among components. Planning sub-processes represent a *multi-disciplinary context* including specialized planners and related professionals in the respective disciplines. In order to achieve integration among disciplinary components, specialized planners and related professionals (with other participants) need to address both the specialized components, as well as the linkages among components. The relative value and importance of problem components and pertinent planning sub-processes vary according to project context, which will require contextual analysis and evaluation.

4.1.3 Potential Policy Directions within Components and Overall Planning Process:

Policy directions are basically micro-level planning decisions that respond to specific problems and issues within components and the overall planning process.¹⁷² In essence, policy directions

¹⁷¹ In some cases, local unemployed residents were former employees of the blighted/abandoned factory, which raises the notion of fairness of accessibility to newly created jobs (general case study analysis and literature review).

may be viewed as complementary elements of the pertinent planning sub-processes. Some of the policy directions may be considered as planning guidelines in the process. Exhibit 4.2 outlines the main policy directions classified by problem components and planning sub-processes in addition to the overall planning process.

Exhibit 4.2: Potential Policy Directions in Relation to Their Related Planning Sub-processes & Components		
Problem Components	Planning Sub-processes, Potential Plans and Visions	Potential Policy Directions
1. Environmental- Legal Component	<ul style="list-style-type: none"> • <u>Site remediation & restoration planning</u> • Watershed planning • Ecosystem planning in general 	<ul style="list-style-type: none"> • <i>To address environmental contamination and site remediation in the beginning of the process in order to arrange for optimal & legally viable site remediation plan</i>¹⁷³ • To define and confine legal liability to viable limits
2. Physical- Functional Component	<ul style="list-style-type: none"> • <u>Physical-functional planning and design</u> (vision) including: • Land use planning vision (especially in large areas) • Urban design strategies (vision) • Site planning, architectural design for new buildings & reuse of existing buildings & structures 	<ul style="list-style-type: none"> • To prepare an inventory of existing brownfield sites in order to address the interrelated planning problems collectively • To reclaim lost urban space through an adaptive reuse/ redevelopment of potential resources • To achieve responsive environments with a sense of place and community • To maintain a balance between heritage conservation and urban innovation in the context of urban transformation.
3. Economic- Financing & Marketing Component	<ul style="list-style-type: none"> • <u>Project Financial and investment plan/planning</u> • <u>Project Marketing plan/planning</u> 	<ul style="list-style-type: none"> • <i>To develop a self-financing mechanism (like tax increment financing-TIF) that is tailored to the Canadian context in order to finance the first package of site remediation</i> • To arrange for project marketing in the early stages of the process in order to secure potential developers and investors for different packages of the process • To develop financial and other redevelopment incentives in order to create an attractive redevelopment package
4. Social Component	<ul style="list-style-type: none"> • <u>Social equity planning (socioeconomic development and accessibility to newly generated opportunities)</u> • Safe community planning 	<ul style="list-style-type: none"> • To develop mechanisms that will secure accessibility of local residents to the newly provided opportunities • To create socially appropriate environments (including defensible space)
5. Political- Organizational Component	<ul style="list-style-type: none"> • <u>Stakeholders' collaboration and partnerships including the public consultation process</u> • This includes public-public, public-private, and public-private-community forms of collaboration and partnerships 	<ul style="list-style-type: none"> • <i>To establish network linkages among stakeholders (public, private, and community) in order to foster collaboration and partnerships throughout the different stages of the process.</i> • To establish a special redevelopment authority that is directly responsible for the reuse and redevelopment process of blighted/contaminated sites. This may be in the form of a public authority, or a form of (public-private) partnership.
6. Overall Multiple Component Problem Context	<ul style="list-style-type: none"> • <u>Overall multiple-component integrative planning process</u> 	<ul style="list-style-type: none"> • To address multiple component problem context and the related integrative planning framework • To plan with a flexible comprehensive vision and to secure incrementally adaptive implementation packages

¹⁷² The policy directions are primarily derived from the analysis of favorable circumstances within about 40 general case studies of brownfield redevelopment in Canada, U.S. and U.K. (see Section 2.2, Chapter Two).

¹⁷³ In this context, an optimal plan includes a balance of being economically feasible, acceptable by stakeholders, environmentally sustainable, physically and functionally fit/compatible and sensible within its urban setting.

These policy directions may be used by the public sector as guidelines for establishing public policy. Also, some of the policy directions and guidelines may be used by the private developer and his team in setting up the proposed project plan.

In comparison, the policy recommendations of the (NRTEE, 2003) National Brownfield Redevelopment Strategy (NBRS) were for public policy applications and were primarily focused on the economic and environmental components, and partly on the political component in terms of building capacity and community awareness.¹⁷⁴ Most of the policy recommendations of the NBRS are either explicitly or implicitly included in the proposed policy directions.

The proposed policy directions represent research hypotheses that need to be further examined within an empirical study process. In particular, a focus will be on studying the viability of tax increment financing (TIF or TIEF) as a self-financing tool for brownfield site remediation and preparation within the Canadian context.

4.1.4 The Planning Process Employs Mixed Rationality

The overall planning process, employs *mixed rationality* both in terms of substantive and procedural rationality. Mixed substantive rationality is represented in employing planning criteria and processes from various components/disciplines including the physical, environmental, economic, social and political. The political rationality is applied in addressing various stakeholders' values and objectives, as well as stakeholders' potential organizational set-up. Mixed procedural rationality is represented in applying the rational decision making process as well as combining different approaches/ themes in the planning process including incrementalism, adaptability, comprehensiveness, and participatory/communicative approaches. In addition, mixed rationality is represented in multi-stakeholder rationality context.

The argument against rational planning, specifically the rational comprehensive model, was primarily on the difficulty of applying rationality in the context of complexity and uncertainty. However, if the complex problem context is broken down to its components, then application of rationality will be possible at the component or sub-component levels. Also, the criticism was more on the “*technical, instrumental, centralized, unitary/non-pluralistic, and bounded*” aspects that reflected the planner's point of view for planning, rather than on the “rational” (reasoning) aspect of planning (Alexander, 1992: 102; Bearegard, 2003: 114; Brooks,

¹⁷⁴ See Exhibit 2.8 for a detailed outline of policy recommendations proposed in the NBRS (NRTEE, 2003).

2002: 91; Healey, 2003: 238). As outlined earlier, the process includes mixed rationality where various disciplines and various stakeholders are involved in the process.

Essentially, planning as applied is still following a form of a rational decision making process that includes “*analysis, synthesis, evaluation, implementation, and monitoring*”. In the context of community planning, Hodge & Gordon (2008: 176) propose a “*General Model of the Community Planning Process*” that follows the rational comprehensive planning model, but with “*Bounded Rationality*” that acknowledges the limitations of participants (Exhibit 4.3). However, the process is normative in terms of recognizing and intervening in the value system of community members. The process includes community participation in defining goals and evaluation, but with less involvement in the technical aspects of the process.¹⁷⁵ This is basically including political rationality with the technical rational decision making process.

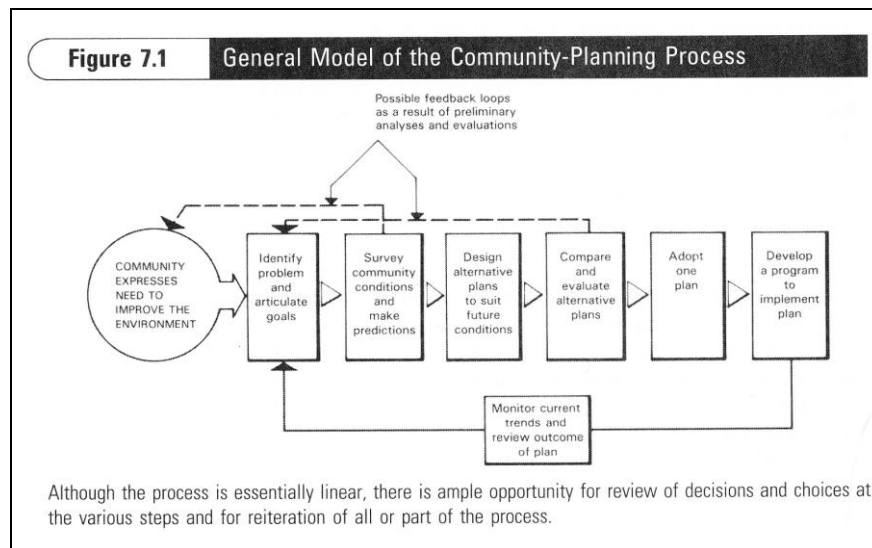


Exhibit 4.3: General Model of the Community-Planning Process (Hodge & Gordon, 2008: 176, Figure 7.1)

In the context of communicative theory and its implications for spatial planning, Healey (2003: 243) asserts the need for inclusionary argumentation in the planning process and proposes a model for the communicative/participatory planning process that is similar to the step-by-step model of the conventional rational planning process with additions to address setting up the arena (stage) and style for communication.¹⁷⁶ Even though Healey criticized the rational

¹⁷⁵ Also see Exhibit 2.4 which outlines five models for the planning process based on rational decision making.

¹⁷⁶ See Section 3.1.2, Chapter Three for details of the process stages that include: 1. *Arena for Argumentation*, 2. *Scope and Style of Discourse* (Communication Protocol), 3. *Sorting through Arguments* (Analysis), 4. *Creating a New Discourse* (Synthesis), 5. *Agreement and Critique* (Evaluation). Healey (2003: 251) also asserts the need for a strategic policy discourse to be subjected to continual reflexive critique, which is essentially the “monitoring” stage in the rational decision making process. However, the stage of implementation is not addressed in this model.

comprehensive planning model in terms of “*narrow instrumental rationality*” and for not recognizing the “*cultural diversity*” of participants and the community, she still acknowledges the need for the basic “*rational decision making*” stages that are customized to the communicative/participatory process. Essentially, the communicative/participatory process represents the political-organizational planning sub-process which is part of the overall multiple component process proposed in this research.

In the context of public planning, Brooks proposes “*The Feedback Strategy of Public Planning*” which incorporates the social and political environment and addresses “*planning as social experimentation*.” “*The strategy in fact builds in politics as a component of the planning process, rather than viewing it as a dysfunctional external disturbance or barrier*” (Brooks, 2002: 161-162). Brooks outlines a six-stage Feedback Strategy which is essentially similar to the stages of the conventional rational decision making process. However, feedback loops are indicated to link the process stages with the planner’s social and political environment (Exhibit 4.4). This indicates that the rational decision process is considered as given in planning and the new element in the proposed strategy is the inclusion of socio-political rationality in the process.

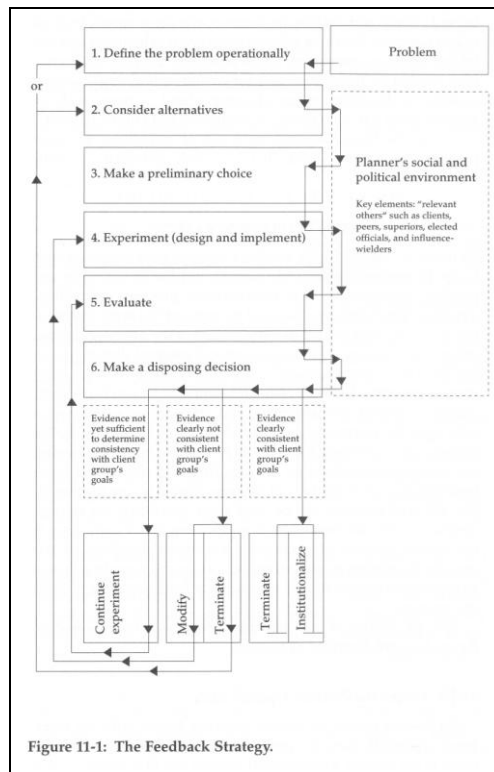


Exhibit 4.4: The Feedback Strategy (Brooks, 2002: 162, Figure 11.1)

Given the above outline from different references, it is apparent that rational decision making is intrinsically embedded in planning as a decision making process. In essence, rational

decision making as represented in the consolidated process stages of analysis, synthesis, evaluation, implementation, and monitoring is applicable to each of the planning sub-processes that constitute the overall planning process. However, the emerging planning model is also more inclusive of the political communicative/participatory process where the private developer, public approval authority, and community residents interact in a collaborative process.

4.1.5 Potential Implementation Packages and Distribution of Primary Stakeholders' Responsibility:

The reuse and redevelopment process can be potentially divided into two interrelated implementation packages (A and B): the first is project initiation and site remediation; the second is site reuse and redevelopment including physical planning and design (Exhibit 2.9, Chapter Two). The first package is regulated through the environmental approval process, while the second package is regulated through the normal development approval process. Both packages are interrelated since the environmental remediation plan is affected by the proposed land use development plan. Potentially, each package may be implemented by a different stakeholder or by a form of public-private partnerships.

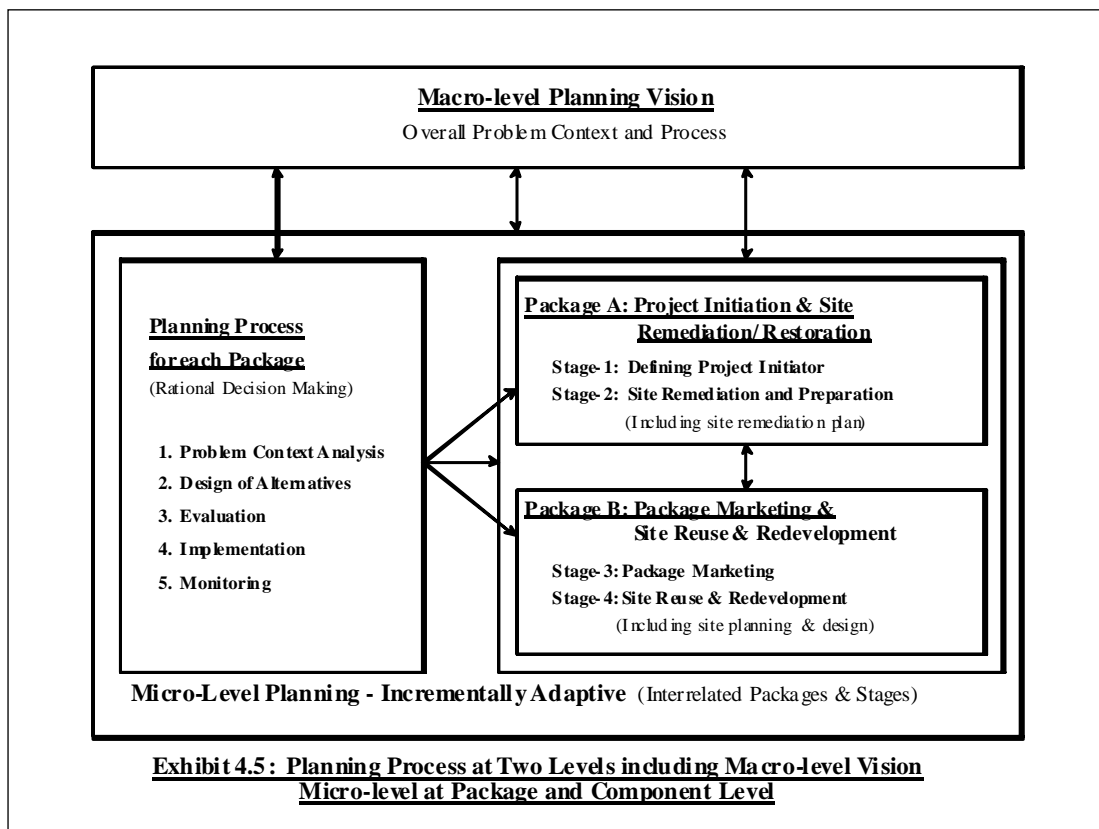
The thick black line in Exhibit 2.9 represents the most prevalent path among the general case studies analyzed in the preliminary literature review. It clearly indicates the need for public intervention in the first package of site remediation and restoration. The first implementation package of site remediation and restoration represents the primary big obstacle in the redevelopment process, because it may incur high costs that may exceed sometimes real estate value of the site (Bartsch & Collaton, 1997; NRTEE, 2003: 5). Also, this package implies high risks and legal liabilities of contamination, including present and future liabilities as well as real and perceived liabilities. These conditions drive away private developers/investors and makes greenfield development more attractive than brownfield redevelopment. This is why this package will require public initiative or a form of public-private partnership (Alberini et al, 2005; Heberle & Wernstedt, 2006; Lange & McNeil, 2004; NRTEE, 2003). Public support in the form of financial incentives will be helpful in initiating site remediation. Another form of public support is tax increment financing (TIF/TIEF), which may be applied to finance site remediation cost (NRTEE, 2003; OCETA, 2008). The implementation of the second package can be potentially performed by a private sector developer or through public-private partnership. The first and second implementation packages need to include the public consultation process in order to

address community views and aspirations. In this sense, these packages are preferably considered as a form of public-private-community collaboration and partnerships.

Another option for potential implementation packages is based on sub-dividing the site into smaller redevelopment sites. In this case, the strategy is to phase site remediation and site redevelopment of the subdivided smaller sites according to priority areas. This strategy has been used in large sites where site remediation and redevelopment costs and risks are high. Also, this strategy was helpful in cases where contamination exists in a certain portion of the site and hence redevelopment may start on the clean parts where it is more feasible and gradually spin off the redevelopment of other subdivided areas of the site. The phasing of implementation of the subdivided site allows for adaptive incremental redevelopment.

4.1.6 Planning Process at Two Levels: Overall Vision and Micro-Level Package Planning

Given the two potential implementation packages outlined above, the reuse and redevelopment of blighted industrial sites (brownfields) can be envisioned as an interactive two-level planning process; the first is a macro-level holistic planning vision for the entire process, and the second is micro-level planning at the package or component levels (Figure 4.5).



Planning Sub-processes within Package-A and Package-B (Micro-level)

This is represented in the planning sub-process(es) within each Package-A (Site Remediation and Restoration) and Package-B (Site Reuse and Redevelopment). These planning sub-processes are in a way following the theme of the rational decision making process, especially in preparing a site remediation plan (Package A) as well as in developing an adaptive reuse and redevelopment plan (Package-B). Planning sub-processes are also applied at the component level within Package-B. The main stakeholders include the project developer and his team who are preparing the redevelopment plans and the public approval authority (municipality) that is responsible for project approval. The local community is also involved in the public consultation process.

Planning Vision: Overall Problem Context and Process (Macro-Level)

This represents the overall planning vision for the process to allow for identifying linkages among problem components, possible integration of packages and stages, for evaluation and flexible adaptation in the case of changes and uncertainties, and for maintaining ultimate objectives. The overall problem context analysis and the reconstruction of major linkages among components, represent a crucial step in outlining the overall planning framework and understanding for potential policy directions within the components.

4.1.7 Multiple Component Integrative Planning Approach is necessary to address the multiple and interactive problems and issues. This integrative planning approach attempts to integrate the planning sub-processes within all problem components in order to establish an overall viable planning process for a given project site context.

As outlined earlier, planning sub-processes follow the rational decision making process (analysis-synthesis-evaluation-implementation-monitoring). However, it is a mixed rationality context in terms of incorporating multiple substantive components and multiple stakeholders' visions and values.¹⁷⁷ Also, the integrative planning process can be seen as a composite of multiple component sub-processes that are linked/integrated at each stage of the rational decision making process (Exhibit 4.6). This implies multiple component analysis, synthesis, evaluation, implementation, and monitoring.¹⁷⁸ Multiple component criteria (or indicators) may be used as the basis for design synthesis as well as for project evaluation before and after implementation

¹⁷⁷ See Section "4.1.4 Mixed Rationality in the Planning Process". Also see Exhibit 2.4 in Chapter Two, which outlines five models for the planning process that are based on the rational decision making model.

¹⁷⁸ It is important to view Exhibit 4.6 as a general theoretical perspective and guide rather than a specific applied model for decision making. The complexity of the planning process in terms of multiplicity of components/processes, interactive setting, scale/size of the process, and implied time spans, makes the process difficult to control holistically but to approach it incrementally with a comprehensive vision.

(Thornton et al, 2007; Wedding & Crawford-Brown, 2006). This is a multi-layered planning process where sub-processes are dynamically linked and performed by multiple stakeholders.

The evolution of planning theory revealed an emerging hybrid-planning model that is characterized as multidisciplinary, integrated, collaborative, incrementally adaptive process, which is in a way consistent with the substantive findings for the reuse and redevelopment process (Exhibit 3.2, Chapter Three). This multi-disciplinary integrative planning model necessitates further integration among the relatively discipline-based theories, including the physical land use and urban design, sociopolitical, political-economy, socio-economic, and ecology-based theories, in order to establish a common framework of understanding and delineating the dynamics of their interactive linkages.

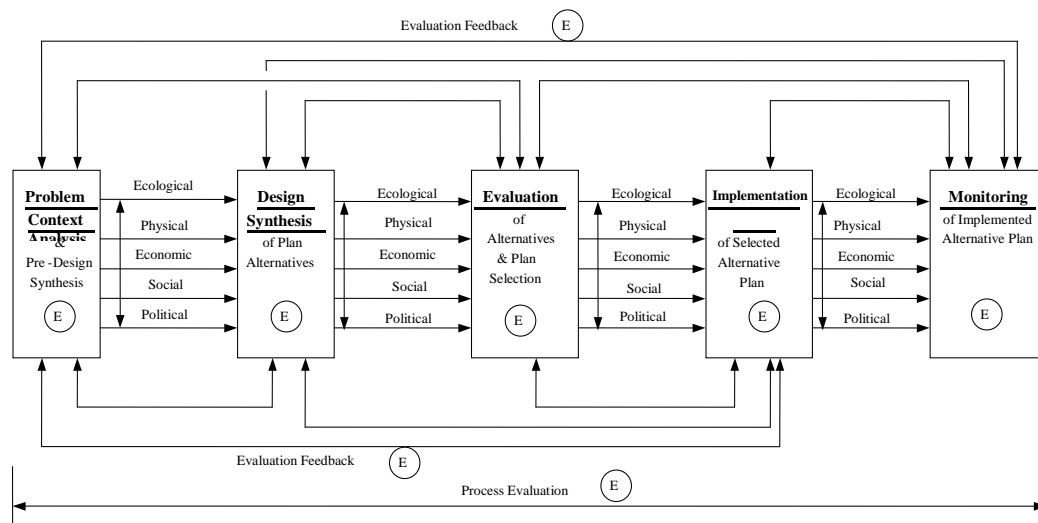


Exhibit 4.6: Multidisciplinary Integrated Planning Process

(For Each Package of the Reuse and Redevelopment of Blighted Industrial Sites)

Note: Planning Process stages and evaluation are adapted from (Alexander, 1992; Baer, 1997; Kaiser et al, 1995; Litchfield, 1975)

(E) Evaluation

The concept of sustainable development and the idea of combining and balancing the social, economic, and environmental values and objectives is an attempt towards multiple component integration. However, sustainable development is not yet operationalized in a planning mode, but it is more about targeting long term ideal goals.¹⁷⁹ While sustainable

¹⁷⁹ Campbell (2003) outlines that holistic sustainable development may be envisioned as an ideal long-range goal that we cannot achieve directly, but we can approach incrementally through a "sustained process" of resolving the conflicting objectives of social equity, economic growth and environmental protection.

development aims at balancing the objectives of three components (environmental, economic, and social), this research proposes two additional components (the physical-functional and political-organizational) that need to be explicitly addressed in the integrated planning process.

Planning sub-processes within components represent a *multi-disciplinary context* including specialized planners and related professionals in the respective disciplines. In order to achieve integration among components and related disciplines, specialized planners and related professionals, in addition to other stakeholders, need to be involved in a collaborative process. The question remains: who will perform the integration among components? In a given project, planning is usually carried by the developer and his team of consultants, the public approval authority, in addition to community residents and groups. Within the developer's team, it is primarily the developer who appears to be monitoring, if not performing, the integration process. However, planners, especially community land use planners, urban designers, as well as other specialized professionals can play an important consulting role in the "technical" integration process. In addition, integration of multiple planning processes can be achieved by the public approval authority during the development approval process and community participation, which is an important medium for synergy and collective decision making among main stakeholders.

An important requirement in the planning process is that there is no prior bias or predominance of any component in the beginning. However, in a given project, contextual analysis of multiple components may reveal the relative importance of issues as perceived by stakeholders in a participatory process. The evolution of planning models and approaches, reveals main stream planning paradigm that is more inclined toward the physical and economic components (Exhibit 3.2). The traditional planning process by the project developer and his team is in a way more biased toward the economic component that reflects his primary interest. Also, the traditional planning as performed by the public approval authority is in a way more biased toward the physical-functional component as evidenced by the predominant requirements of the official land use plan, zoning by-laws, and urban design guidelines. A multiple component integrative planning approach will more likely provide a proper balance among the multiple objectives of the ecological, physical, economic and socio-political components.

4.2 RESEARCH DIRECTIONS

The general research goal is to achieve an understanding of the complex problem context for brownfield reuse and redevelopment as well as to establish the pertinent planning framework for redevelopment of those areas within the context of the Canadian inner city.

4.2.1 Research Objectives and Questions

Research objectives are related to the key research findings and hypothetical propositions that require further exploration and examination within empirical studies. The preliminary hypothetical planning framework is represented in three constituent parts including the problem context, potential policy directions, and planning process. The pertinent research objectives and questions are classified accordingly. This set-up allows for understanding the dynamics of the problem context as well as the relationship between micro-level policy planning and macro-level multiple component planning. The research objectives and questions are as follows:

1. *Problem Context:* The main objective is to explore the multiple component problem context of brownfield redevelopment and to examine in an empirical setting how these problem components and their linkages impinge on the process. The pertinent research questions include:

- What are the main problem components and issues of brownfield redevelopment planning? What is the impact evaluation of the proposed list of problem components and issues in a given context of brownfield redevelopment?
- How are multiple component problems manifested in brownfield redevelopment context? How do these problem components and their interactive linkages impinge on the individual planning sub-processes and on the overall redevelopment process?

2. *Potential Policy Directions:* The main objective is to explore and develop potential policy directions addressing problem components and the overall planning process. Also, there is an attempt to study the viability of a key policy direction of tax increment financing (TIF/TIEF) to finance the cost of site remediation. The pertinent research questions are as follows:

- What are the potential policy directions for application? What is the impact evaluation of the proposed policy directions in a given context of brownfield redevelopment?
- How are potential policy directions related to the overall multiple component context? Is tax increment financing (TIF/TIF) viable to finance site remediation cost?

3. *Planning Process:* The main objective is to explore planning approaches for brownfield redevelopment and to examine the viability of the hypothetical multiple component integrative planning framework. Also, the objective is to delineate the main characteristics of the planning

process including the main linkages among problem components and planning sub-processes.

The pertinent research questions are as follows:

- What is the appropriate planning framework for brownfield redevelopment?
- How are multiple component problems and related planning sub-processes represented in a brownfield redevelopment project? What are the main interactive dynamics and linkages within and among components?
- Is multiple component integrative planning viable for brownfield redevelopment?
- What are the main characteristics of multiple component integrative planning framework for brownfield redevelopment?

In essence, the nature of this research is wider in breadth in addressing multiple components and linkages, as well as lower in depth regarding each component. While traditional research usually focuses on a certain component or element and delves deep into it.

4.2.2 Potential Research Contribution

In general, and from literature review, most of the current research on brownfield redevelopment is focused on specialized policy issues or addressing general planning issues of this field. Some of current literature is addressing specific issues related to the economic, environmental and/or social components (Alberini et al, 2005; DeSousa, 2009; Howland, 2007). Other research has addressed multiple component sustainability indicators to assess brownfield redevelopment (Pediaditi et al, 2006; Raco & Henderson, 2006; Silverthorne, 2006; Thornton et al, 2006; Wedding & Crawford-Brown, 2006). Also, current research has addressed brownfield redevelopment from a general planning view like (De Sousa, 2006 & 2008; Heberle & Werstedt, 2006; Lange & McNeil, 2004). In addition, current literature includes case studies outlining main substantive issues in brownfield redevelopment (Brooks, 2006, Bartsch & Collaton, 1997; Gordon, 1997; Vrijthoff, 2006). Some current literature is focused on policy planning and recommendations for brownfield redevelopment (NRTEE, 2003; OCETA, 2008). Other issues covered include heritage issues and planning (Bliek & Gauthier, 2007; London, 1998).

Given the above outline, there is little written on the holistic planning process for brownfield redevelopment from applied and theoretical points of view. This research attempts to fill this lacuna in current research on brownfield redevelopment. In this regard, the literature review also includes general planning theory and other related theories like Brooks, 2002; Campbell & Fainstein, 2003; Alexander, 1992, Hodge & Gordon, 2008; Healey, 2003; Beauregard, 2003; Friedmann, 2003 & 1987; Davidoff, 2003; and others.

The main contribution of this research is an attempt to outline a new holistic integrative vision to planning. Even though, the elements of its mosaic may exist in isolated theories and practices, synthesizing the elements into an integrated whole may be considered as a new vision and approach to include comprehensiveness in planning. This research adheres to the importance of multiple component planning in complex conditions and the application of rational decision making model at the component and sub-component levels. Also, multiple component planning requires an integrative approach to link components which indicates an emphasis on design thinking and synthesis in planning. In a way, the attempt in this research is to delineate the architecture of planning - both in terms of structure and dynamics.

CHAPTER FIVE: EMPIRICAL RESEARCH METHOD AND PROCESS

This Chapter focuses on developing an empirical research method based on preliminary research findings, research objectives and questions outlined in Part One. The preliminary research findings represent the theoretical research propositions/hypotheses, which are to be further explored and examined within the empirical field study. The literature review including the analysis of general case studies and preliminary research findings and hypotheses, all together, form an integrated framework for the research process and for developing the empirical research method (Exhibit 5.1).

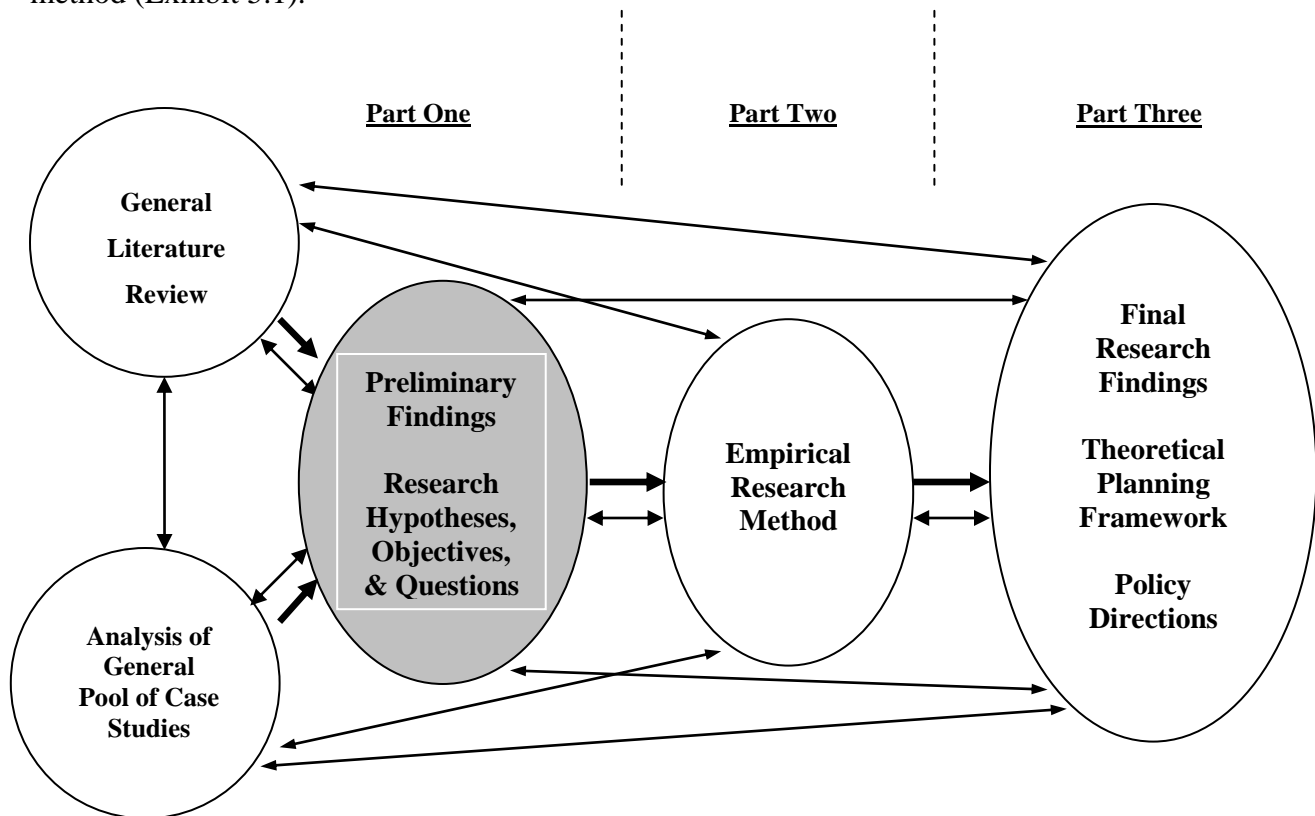


Exhibit 5.1: General Framework for the Research Process Elements

- ➔ Directional Flow of the Research Process
- ↔ Interactive Relationship among Research Stages

5.1 RELATED RESEARCH METHODS AND PARADIGMS

Generally speaking, there are two major research paradigms,¹⁸⁰ the quantitative and the qualitative (Creswell, 2009: 3). However, Creswell outlines three types of research design approaches including the qualitative, quantitative, and mixed methods. These approaches

¹⁸⁰ The use of the term “paradigm” is taken from (Creswell, 1994: 1) which encompasses both theories and methods, while the term “method” is used to mean the specific research approach and its pertinent process(es).

represent different ends of the same continuum with the mixed qualitative-quantitative somewhere in between.¹⁸¹

Robson (2002: 26) outlines two broad strands of current views of social research including “*Post-positivism*” (an extension of positivism with objective reality), and “*Constructivism*,”¹⁸² which respectively resemble the quantitative and qualitative traditions within social research. Robson conveys an inclination toward a “*realist view of science*,” which is the pragmatic approach of using the method(s) that is suitable for a given research problem which will lead to using a mixed quantitative-qualitative approach.¹⁸³

In conclusion, and depending on the nature of the study, the research may be designed according to a single paradigm or a composite of the quantitative and qualitative when necessary.

5.1.1 Quantitative versus Qualitative Research Paradigms & Related Research Methods

Creswell (2009: 4) defines *quantitative* research as “*a means for testing objective theories by examining the relationship among variables.*” The *quantitative paradigm* is also referred to as the positivist/post-positivist, experimental or the empiricist paradigm, and within it, reality is considered objective, singular, and apart from the research (Creswell, 1994: 4).¹⁸⁴ Also, the quantitative paradigm is characterized as being value free, formal, deductive, static in design, context free, and relatively more deterministic in nature. Research methods within this paradigm include the use of *experiments* (true or quasi) and *surveys* (cross sectional and longitudinal studies) using questionnaires or structured interviews to collect the data needed to generalize from a sample to a population.

“*Qualitative* research is defined as “*a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem*” (Creswell, 2009: 4). The

¹⁸¹ Creswell outlines that “*qualitative and quantitative approaches should not be viewed as polar opposites or dichotomies; instead, they represent different ends on a continuum. A study tends to be more qualitative than quantitative or vice versa. Mixed methods research resides in the middle of this continuum because it incorporates elements of both qualitative and quantitative*” (Creswell, 2009: 3).

¹⁸² Constructivism holds a basic tenet that reality is socially constructed. It is in a way an extension of the “*relativist tradition*” which maintains that “*there is no external reality independent of human consciousness; there are only different sets of meanings and classifications which people attach to the world*” (Robson, 2002: 22).

¹⁸³ Robson outlines that the pragmatic approach is to “*use whatever philosophical or methodical approach that works best for a particular research problem at issue. This leads to mixed-method studies where both quantitative and qualitative approaches are adopted*” (Robson, 2002: 43).

¹⁸⁴ Creswell (2009: 17) characterizes the quantitative approach as “*post-positivist*” and defines it as a worldview characterized by determination, reductionism, empirical observation and measurement, and theory verification. He also refers to it as positivist/post-positivist research, empirical science, and post-positivism. In essence, post-positivism is an extension of positivism and also assumes an objective reality. However, post-positivism does not hold that the researcher and the researched person are independent as in positivism, but accepts that “*the theories, hypotheses, background knowledge & values of the researcher can influence what is observed*” (Robson, 2002: 27).

qualitative paradigm is also referred to as the constructivist, naturalist, interpretive, post-modern perspective and approach, which emerged as a counter-movement to the positivist tradition (Creswell, 1994: 4). Within this paradigm, reality is subjective and multiple as seen by participants in a study. The researcher also interacts with the research context. This paradigm is characterized as being value-laden and biased, informal, evolutionary, inductive, holistic, and pattern-oriented to establish understanding (Creswell, 1994: 5; Patton, 1990: 40). It is relatively more probabilistic in nature. Also, the qualitative paradigm is less structured than the quantitative paradigm and induces a broad range of approaches, rather than specific methods.

Creswell (2009: 3) outlines that “*often the distinction between qualitative and quantitative research is framed in terms of using words (qualitative) rather than numbers (quantitative), or using closed-ended questions (quantitative hypotheses) rather than open-ended questions (qualitative interview questions)*”. Robson (2002: 164) refers to designs within the quantitative research as fixed designs and within qualitative research as flexible designs.

Generally speaking, the **qualitative paradigm** takes into consideration many of the elements that characterize the proposed research on revitalizing industrial blight such as the issues of **complexity**, **variability**, **contextuality**, and is more **probabilistic** and **inductive** in nature. It is difficult to apply a quantitative method in its totality, however a level of quantification of certain issues within this research is possible and a need may arise to adopt a quantitative method for that specific issue or issues within the overall research.

5.1.2 The Case Study Approach

The case study approach is a research strategy rather than a method and the case (or cases) is used as a research unit (Yin, 2003: 12; Robson, 2002: 179). In general, a research method is linked with a certain theory and it is structured around the main hypothesis and elements of that theory as well as focusing on its central question(s) (Creswell, 2009: 62; Patton, 1990: 67; Robson, 2002; Yin, 2003: 28). Patton considers the case study as one of the themes of qualitative inquiry which seeks to describe the case unit (or phenomenon) in depth and detail, in context, and holistically. Yin (2003: 13) defines the case study strategy as “*an empirical inquiry that:*

- *Investigates a contemporary phenomenon within its real-life context, especially when*
- *The boundaries between phenomenon and context are not clearly evident.”*

And he outlines that “*the case study inquiry*

- *Copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result*

- *Relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result*
- *Benefits from the prior development of theoretical propositions to guide data collection and analysis”.*

In a similar sense, Robson (2002: 178) defines the case study as a “*strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence.*” Within this approach, the case study selection may include a single case or a small number of related cases; the contextual study of the phenomenon is typically where the boundary between the phenomenon and context is not clear. The research process includes evaluation. In essence, the case study approach is a comprehensive research strategy that requires a special design (Yin, 2003: 14).

In this research, the contemporary phenomenon is “the problem of blighted/ contaminated industrial sites within the inner city and the related planning process to respond to and resolve this problem.” This dual aspect phenomenon has no clear boundaries in at least two aspects. First, the phenomenon includes multiple-interactive components and their related planning processes that can be only defined within their site context, and they are difficult to be dealt with and resolved separately. Second, the redevelopment dynamics of blighted industrial sites are interrelated to their surrounding and inner city context, as in the effect of land use compatibility of potential site reuse functions with the surrounding.¹⁸⁵ This is why it is essential to study the phenomenon and its multiple components as they are manifested in their contextual case study setting. The case study approach, as a contextual study of a phenomenon, is intrinsically embedded in the nature of this research, which in essence is case specific.

The case study approach has been mostly referred to in the qualitative research paradigm (Creswell, 2009: 12; Robson, 2002: 165; Patton, 1990: 53). Robson (2002: 164) points out that qualitative research incorporates flexible designs which may include quantitative and qualitative methods of data collection. Conversely, quantitative approaches call for a tight pre-specification of the design prior to data collection and are referred to as fixed design approaches. Green et al (2005: 274) point out that “*mixed-method approaches to social inquiry involve the planned use of two or more different kinds of data gathering and analysis techniques, and more rarely different kinds of inquiry designs within the same study or project.*”

¹⁸⁵ Also, there is the effect of inner city real estate market on the viability of certain functions on a specific site. Considering redevelopment potential, the surrounding context may take different definitional levels according to each case study. It may include the site surrounding, the inner city, and sometimes the city as a whole including its region like in the case of the competitive advantage and dynamics between the inner city and the region (suburbs).

Given the above outline, this empirical research is primarily based on a qualitative case study approach. Also, quantitative analyses may be employed in some of the component studies. This case study research strategy is considered as primarily qualitative based on the following characteristics (Creswell, 2009: 17; Robson, 2002: 165):

- Tends to use constructivist philosophical assumptions characterized by understanding, multiple participant meanings, social and historical construction, theory generation.
- Employs open-ended questions, emerging approached, text or image data.
- Researcher interacts with the phenomena being researched.
- Brings personal values into the study.
- Studies the context or setting of the phenomenon.
- Collaborates with the participants.
- Makes interpretation of data.
- Involves in-depth study of as ‘case’ or ‘cases.’
- Includes multiple sources of data including documents, archival records, interviews, observations, and physical artefacts.
- Data analysis based on descriptions, themes, assertions.

Another definitional component of a case study strategy is the need for a prior development of theoretical propositions or hypotheses to guide the research (Yin, 2009: 22). The preliminary research findings of the literature review and general case study analysis represent the research hypotheses or theoretical propositions, which will guide the empirical case study research design and field processes. The research hypotheses have already defined the research focus as represented by the research questions and objectives.¹⁸⁶

Yin (1994: 4) outlines that a case study, as well as other research strategies, can be used for an *exploratory, descriptive, or an explanatory* purpose depending on the research objectives and research questions. Yin outlines that “what,” “who,” and “where” questions tend to be more for exploratory or descriptive purposes, while “how” and “why” questions are more for explanatory purposes. Robson (2002: 182) links the degree of flexibility in case study design, purpose of the case study and the research questions and objectives. If the main purpose is exploratory, then the initial approach will be highly flexible. However, if the purpose is confirmatory (where previous work has suggested an explanation of some phenomenon), then there is a place for some degree of pre-structure. If the case study seeks to provide support for a particular (prior) theoretical framework, then one of its aims will be to find explanations to verify this framework. Another aim may be to further explore and develop that framework to a general theory. My research on redevelopment of blighted industrial sites is exploratory in the sense of

¹⁸⁶ The research hypotheses (or theoretical propositions) are outlined in Chapter Four.

attempting to explore and establish a theoretical planning framework for the reuse and redevelopment of blighted industrial sites. However, it is also explanatory in the sense that it attempts to find explanations to verify research hypotheses (theoretical propositions) and to generalize findings to a theoretical planning framework.

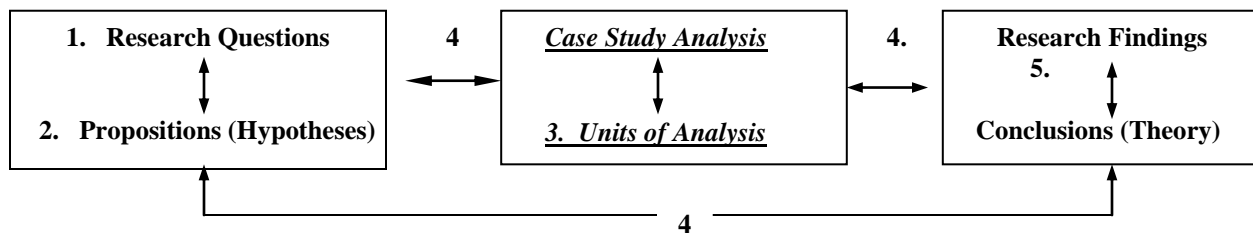
The central weakness of a case study approach is **generalizability** of findings (Yin, 2003: 10). Yin outlines that the aim in a case study is to generalize findings to theory (or theoretical framework), rather than to other case studies, and relying in the process on ‘**analytical generalization.**’ This is unlike the survey research strategy, which aims to generalize sample findings to a larger universe and relying on ‘**statistical generalization**’ (Yin, 2003: 36).

5.2 CASE STUDY RESEARCH DESIGN

Basically, research design is “*the logical sequence that connects the empirical data to a study’s initial research questions and, ultimately, to its conclusions*” (Yin, 2003: 19). Yin outlines the following major components of a case study research design:

1. “A study’s questions
2. Its propositions, if any
3. Its unit(s) of analysis
4. The logic linking the data to the propositions, and
5. The criteria for interpreting the findings” (Yin, 2003: 21)

Thus, a case study research design is a comprehensive structural action plan for conducting the research, which is outlined in the following diagram.



Case Study Research Design Components and a Simplified Method (Adapted from Yin, 2003: 21, 49)

Yin (2003: 40) outlines a matrix of four major types of case study research designs based on the following two major categories of factors, and each constituting two options (Exhibit 5.2):

- Number of case studies – **Single-case Study** vs. **Multiple-case Studies**
- Number of units of analysis – **Holistic** single unit vs. **Embedded** multiple units of analysis

	<i>Single-case Designs</i>	<i>Multiple-case Designs</i>
<i>Holistic – single unit of analysis</i>	TYPE 1 Single-case Holistic Design	TYPE 3 Multiple-case Holistic Design
<i>Embedded – multiple units of analysis</i>	TYPE 2 Single-case Embedded Design	TYPE 4 Multiple-case Embedded Design

Exhibit 5.2: Basic Types of Case Studies (Source: Yin, 2003: 40)

This research is ***Type 4***, which is multiple-case embedded design. In this design type, ***multiple case*** studies are considered due to case ***variability*** and ***generalizability***. Also, ***Embedded*** multiple units of analysis are considered due to the inherent nature of the research hypotheses, objectives, and questions that address the holistic nature of the overall problem context and planning process as well as the individual problem components and pertinent planning sub-processes. The rationale for this research design is as follows:

5.2.1 Case Study Units of Analysis (Holistic-Single Unit versus Embedded-Multiple Units)

In a case study research, the unit(s) of analysis is the measure that reflects the nature of research questions and research propositions or hypotheses (Yin, 2003: 23). Yin outlines the following rationale for considering single and multiple units of analysis:

- A single unit of analysis (holistic design) is used when the focus of the case study (or case studies) is only on the global nature of the phenomenon.
- The holistic design is useful when there are no logical sub-units that can be identified and the underlying case study theories/hypotheses are themselves of a holistic nature.
- The multiple units of analysis (Embedded Design) are used when the focus of the study is not only on the global nature of the phenomenon, but also on the logical sub-unit(s) of the phenomenon (Yin, 2003: 42).

In this research, the hypotheses and questions address both the holistic nature of the problem context and related overall planning process as well as the individual problem components and their related planning sub-processes. It is inherent that an embedded design (multiple units of analysis) is more appropriate because both the holistic unit as well as the sub-units will be employed. The three sets of research questions and their related hypotheses address the following main focal areas:

- **Nature of the Problem Context:** being multiple component and interactive.
- **Nature of Potential Policy Directions:** proposed policy directions and guidelines classified by component. Also, a key policy direction (Tax Increment Financing, TIF/TIEF) is considered for further examination to verify its viability.

- **Nature of the Planning Process:** This addresses the overall process and components sub-processes, potential implementation phasing packages, and matching stakeholders' primary responsibility for each package. The research findings assert the need for multiple component integrative planning framework for brownfield redevelopment.

As outlined earlier, the research units of analysis represent the measure that reflects the nature of research questions and research theoretical propositions or hypotheses. The holistic unit of analysis and embedded sub-units of analysis include the following:

1. **The Holistic Unit of Analysis** includes the overall problem context and planning process for each selected case study.
2. **The Embedded Units of Analysis** include the five problem components and related pertinent planning sub-processes. Implementation is relatively important stage in the planning process and hence considered as a separate unit of analysis. Also, the key policy direction (TIF/TIEF) is considered as a separate unit of analysis. Based on this outline, the embedded units of analysis are as follows:

Problem Components and Pertinent Planning Sub-processes

- 2.1 **Environmental-Legal Component: Site Remediation and Restoration Planning:**
This includes the potential issues of site remediation and related legal liabilities, in addition to other impinging environmental factors.
- 2.2 **Physical-Functional Component: Physical-Functional Planning and Design**
This may include general planning vision, land use planning, site planning and urban design, new building architectural design and old building heritage conservation.
- 2.3 **Economic Component including:**
This includes financial/investment planning and marketing
- 2.4 **Social Component: Social Equity and Social Safety Planning**
This mainly includes socioeconomic development and accessibility of local residents including lower income groups to newly generated opportunities.
- 2.5 **Political Component: Stakeholders' organization, Collaboration and Partnership**
This includes stakeholders' decision making process mainly the project developer and his team, public approval authority, and local community residents and groups. The development approval process represents the main stage of stakeholders' confluence.

Project Implementation, Phasing Packages & Potential Stakeholders' Responsibility

- 2.6 Implementation and phasing packages are based on site remediation and restoration as the first package, and then site reuse/redevelopment as the second.¹⁸⁷ Also, implementation and phasing packages are based on site subdivision into smaller reuse/redevelopment sites or areas. This allows for incremental implementation of the project.

Key Policy Direction

¹⁸⁷ This is mainly applied in cases of environmental problems like site contamination and watershed flooding.

2.7 Tax increment Financing (TIF/TIEF) as a Self-financing Tool for Site Remediation:

This is to examine whether increments on future property taxes can be used to capitalize on initial site remediation costs.

5.2.2 Single-Case versus Multiple-Case Study Design

Yin (2003: 40) outlines the following five case study circumstances as a rationale for using a single-case design rather than multiple-case design:

- *Critical Case* - in testing well-formulated theory.
- *Extreme or Unique Case*
- *Representative or Typical Case*
- *Revelatory Case* – when an investigator has an opportunity to observe and analyze a phenomenon previously inaccessible to scientific investigation.
- *Longitudinal Case* – studying the same single case at two or more different times.

In general, there is nothing unique or special about a particular blighted industrial site that can be accepted as an appropriate single-case design that may fall under any of the mentioned rationale and simultaneously fulfills the research objectives and responds to the research questions. A multiple-case design may cover the notion of variability among case studies. Also, a multiple-case design implies a stronger potential for replication of explanatory and exploratory patterns amongst cases that are related to the studied phenomenon. Hence this reflects a stronger potential for generalizability. This is why a multiple-case design is more appropriate to this research.

Variability among case studies may be manifested in the following ways:

- The problem level of industrial blight (level of site contamination and decontamination, area economic decline, and existing conditions of buildings/infrastructure).
- A blighted site within the inner city of a large size urban setting (like Toronto) has a different redevelopment potential than a blighted site within a medium size urban setting (like Hamilton).¹⁸⁸
- It is also important to consider case studies that went through successful and unsuccessful redevelopment (or have not picked up redevelopment) to investigate reason for being successful or unsuccessful.

It is important to consider variability when deciding on the number and type of case studies for this research in order to cover various conditions and to avoid problems of incomplete representation of important factors (internal validity).¹⁸⁹

¹⁸⁸ See Appendix A5.3 for the distinction between the redevelopment dynamics of blighted industrial sites within a large size urban setting and a medium size urban setting.

¹⁸⁹ Internal validity here relates to explaining the hypotheses of this research, in particular, the interactive nature among components rather than explaining the traditional causal relationship between the independent variable and the dependent variable. In this research, the underlying hypothesis is that each component affects the other and any

5.3 EMPIRICAL CASE STUDY SELECTION AND RESEARCH DESIGN

Case study selection criteria are related to the main research topic and questions as well as addressing the research units derived in this Chapter. The criteria include:

- Variability in terms of medium and large size urban setting and successful case studies and unsuccessful case studies that did not pick up redevelopment (see Appendix A5.3).
- Relevant to the research hypotheses, objectives, and questions.
- Location of case study site within the inner city or in the surrounding.
- Existence of composite form of industrial blight including site contamination.
- Significance to main stakeholders (public sector, private sector, and community).
- Availability of data that are pertinent to the specific units of analysis
- Approval of related public/private authorities for obtaining the required data.

The selection of case studies can be categorized in the following (2x2) matrix represented by cases within large and medium-size urban settings, as well as cases that went through redevelopment (successful) or did not pick up redevelopment (unsuccessful) (Exhibit 5.3).

	Case Studies That Went Through Redevelopment (Successful)	Case Studies That Did not Pick up Redevelopment (Unsuccessful)
Large-size Urban Setting	1. The Gooderham & Worts Complex, Toronto	2. Toronto Port Industrial District – Toronto
Medium-size Urban Setting	3. Cooksville Quarry Site – Mississauga	4. 241 Stuart Street and CN Service Yard Area – WHDS, Hamilton
	4.1 Bayfront Park – Hamilton West Harbour (Within WHDS)	

Exhibit 5.3: Selected Empirical Case Studies and Their Categories by Size of Urban Setting and Redevelopment Success

According to Yin (2003: 86), “*Evidence for case studies may come from six sources: documents, archival records, interviews, direct observation, participants’ observation, and physical artifacts.*” In addition, some over-riding principles are important to follow, such as: “(a) *multiple sources of evidence ... converging on the same set of facts or findings;* (b) *a case study database, that is, a formal assembly of evidence ...;* and (c) *a chain of evidence, that is, explicit links between the questions asked, the data collected, and the conclusions drawn.*”

This case study design matrix will allow us to compare findings from a variety of case studies. Cross case study analysis and evaluation of findings will be based on the following criteria (Yin, 2003: 34):¹⁹⁰

process in any component cannot be finalized in the absence of knowing the processes in the other components to the level that enables establishing the linkages among them. Essentially, this is multiple component integrative planning approach.

¹⁹⁰ Yin points out that there is no precise way of setting the criteria for interpreting the findings. However, the tactics of explanation building, pattern matching, replication logic and other converging evidence may be utilized to enhance internal validity and external validity (generalizability).

- *Construct Validity: use multiple sources of evidence, establish chain of evidence, have key informants review draft case study report.*
- *Internal Validity: do pattern matching, explanation-building, and time-series analysis.*
- *External Validity: use replication logic in multiple-case studies.*
- *Reliability: use case study protocol, develop case study database.*

Multiple sources of converging evidence and triangulation will include information obtained from documentation, archival records, participant interviews and perceptions, direct observations, and physical artifacts. **Explanation building** will focus on identifying patterns in the empirical case studies for the multiple-component problem context, overall planning process, planning sub-processes, and policy directions. **Pattern matching** will be between those in the empirical case studies and the research hypotheses, and to check whether matching, or support a rival theory/hypothesis. **Replication** (recurring patterns) identified among case studies will enhance generalizability.

The empirical research will include case studies represented by the major project(s) for each selected case, as well as interviews of key participants in the process which represent the public sector, private sector and the local community.¹⁹¹ Sources of information also include project documents and related studies, in addition to information obtained from key participants.

5.4 STRUCTURE & CONTENT FOR CASE STUDY ANALYSIS

The main focus of case study analysis is to delineate the main issues that relate to the eight research units outlined in Section 5.2.1. Also, the analysis is to focus on the main constituent elements of the planning framework including the problem context, policy directions and characteristics of the planning process. The analysis of each case study is outlined in a separate Chapter and includes the following items:

1. **General Case Study Overview:** This includes an outline of case study site, problems and opportunities, development history and development proposal for the project.
2. **Comprehensive Analysis of Project Plans and Planning Processes:** This includes government plans and policies, as well as private sector plans and planning process. The development approval process will be a central element in this analysis.
3. **Key Participants'/Informants' Interviews:** This includes opinions and evaluation of key participants in the process on the main issues, problems and policy directions that are related to the eight research units included in the design of case study analysis.
4. **Case Study Findings and Conclusions:** This includes all the main findings and conclusions derived from all sources of information including key participants' interviews.

¹⁹¹ See Exhibits 5.4, 5.5 & 5.6 at the end of this Chapter for site location and context for each case study.

5. ***Current Status of Case Study Project:*** This includes a brief outline of project development update since the original field work was performed.

6. ***Lessons Learned:*** This provides the key factors and conditions that contributed to project success or failure.

Cross case study comparative analysis and conclusions are provided in a separate following chapter which includes common patterns and replications among case studies.

5.5 KEY PARTICIPANTS' INTERVIEWS & QUESTIONNAIRE DESIGN:¹⁹²

Key Participants' interviews are another important source of evidence to corroborate findings in a case study research approach (Yin, 2003: 85). Findings from key participants' interviews are not stand alone assessment, but should be considered together with other sources of information. The main purpose of the interviews is to obtain the information, observations and opinion of some of the main stakeholders in the redevelopment planning process. The questionnaire design is based on the structure of the eight research units of analysis and the proposed hypothetical planning framework. The main objective is to study and evaluate the relevance of the proposed hypothetical planning framework to the planning context of case studies.

5.5.1 Selection of Key Participants

Selection of key participants in the planning process is based on inclusive representation of all categories of primary stakeholders including the public sector, the private sector, and local community. This includes the project developer, private consultants, and government approval authorities, in addition to local community residents and interest groups. Approximately ten to 15 key participants were selected for each case study.¹⁹³ The time period for the focused interview with open ended questions is about one hour (Exhibit 5b, Appendix A5.2).

5.5.2 Questionnaire Design (Exhibits 5b, 6b, and 7b – Appendix A5.2)

The design of an interview questionnaire is related to the research units of analysis, research hypotheses, and research questions. Yin (2003: 90) outlines the following three forms of interviews, based on the nature of questions asked to participants/respondents:

1. ***Open-ended Interview:*** The respondents are asked for facts about a matter and their opinion about events. The respondents can be interviewed for an extended period of time.

¹⁹² Interviews of key participants and field observations for case studies were performed in 2000 and 2001.

¹⁹³ See Appendix A5.1 for a list of selected key participants for each case study. The selection of key participants was based on their acceptability and availability.

2. *Focused Interview*: The interview follows a certain set of questions derived from the case study protocol including research units of analysis and proposed theoretical hypothesis. The interview may remain open-ended and assume a conversational manner.

3. *Structured Interview*: This interview is based on structured questions following the lines of formal survey. The survey can be designed as part of the case study strategy.

In this research, the interview questions need to be focused on the eight research units of analysis and research questions. The open-ended questions can be used in relation to each research unit in order to get good enough information from the key participants. A focused interview with open-ended questions appears to be more relevant to this part of the interview questionnaire. This is represented in Exhibit 5b (Appendix A5.2) of the interview questionnaire titled “Participants’ Questions - Overall Multiple Component Planning Process, Planning Sub-processes, and Key Policy Direction.”¹⁹⁴

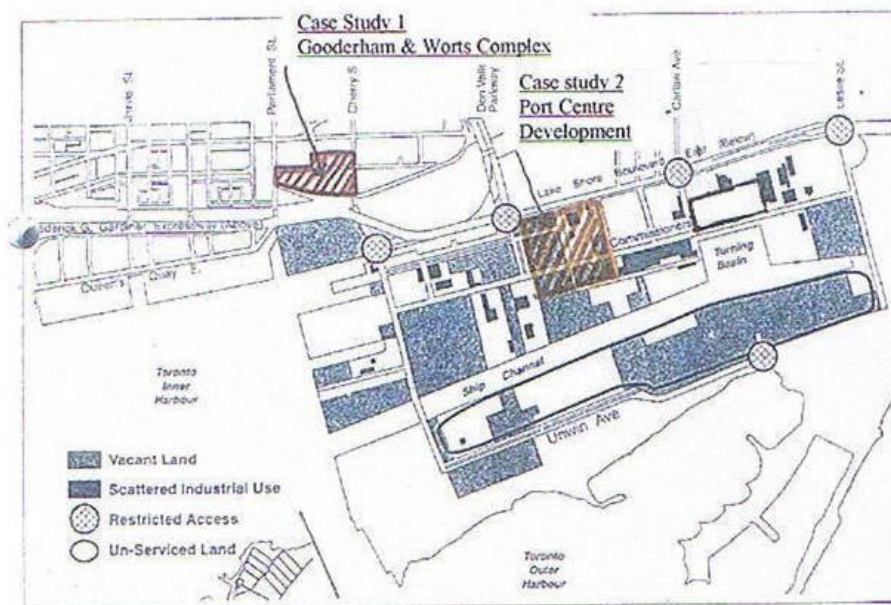
Furthermore, the interview questionnaire can be used to get the opinion and evaluation of key participants on the specific hypothetical research findings. Basically, this is impact evaluation of specific planning problems and related policy directions in the pertinent case study as viewed by the key participants. This part also addresses the eight research units of analysis that constitute the case study research design. For this part of the interview, structured questions that focus on the specific hypothetical findings with an evaluation ranking appear to be more appropriate. However, respondents may add “Other” items to the questionnaire and provide their evaluation. The ranking values for impact evaluation can be in the form of number and/or symbol rating (■-5 to ○-1) representing very strong impact at the higher end, and very weak impact at the lower end with intermediate levels as well.¹⁹⁵ The rating levels also include “Not Applicable” (N.A.) to the pertinent case study. This range of ranking levels with intermediate levels appears to be acceptable since it gives enough differentiation among the values. In the questionnaire, the symbol rating is used because it is visually clearer in giving the overall picture of the impact levels. However, the number rating is also used in getting the averages. A sample

¹⁹⁴ See Appendix A5.2 for all Exhibits included in the Interview Questionnaire design (5b, 6b, and 7b). The original questionnaire Exhibits 5a, 6a, and 7a were modified during the preparation for field work and became Exhibits 5b, 6b, and 7b which were the final version used for the actual interviews. The complete Interview package included the following: (1) Contents, (2) Information letter to Participants, (3) Participant’s Consent Form, (4) Participant’s Personal Information, (5b) Open-ended Interview Questions, (6b) Impact Evaluation of Problems & Issues, and (7b) Impact Evaluation of Policy Directions.

¹⁹⁵ The number and symbol ratings include “very Strong-5-■”, “Strong-4-●”, “Moderate-3-▲”, “Weak-2-□”, “very Weak-1-○”, and “N.A.-0-Blank”.

of these interview questionnaires are provided in Appendix A5.2, “Exhibit 6b - Impact Evaluation of Problems & Issues” and “Exhibit 7b - Impact Evaluation of Policy Directions”.

The Section for Key Participants’ interviews includes an analysis and findings of the focused/open-ended interview (taped) and the structured interview questionnaire (written). The structured/written interview questionnaire will show the results of responses that outline the impact evaluation of problems and policy directions as perceived by key participants. Based on the ranking values outlined above, an average value for the impact level is derived by considering all actual responses for each problem or policy item.¹⁹⁶ Given the different professional background of each informant, they may leave some questions unanswered due to limited knowledge on the pertinent issue. The number of responses will reflect the degree of replication of a given issue or pattern. The average value of impact for each problem or policy direction will reflect the relative importance of each item. One weakness in this evaluation is for specialized items, when only fewer responses will be obtained due to limited knowledge. This will reduce its reliability. Anyway, other sources of evidence are required to verify findings.



Source: City of Toronto (1999) "Unlocking Toronto's Port Lands: Direction for the Future"

Exhibit 5.4: Case Study Location Map 1, Toronto

Case Study 1 - Gooderham & Worts Project

Case Study 2 - Port Centre Development Project

¹⁹⁶ The average impact value for each problem or policy direction is derived by averaging the added values for all responses. If there is no response for an item, it is considered as zero. Intermediate levels are also counted. The overall average value is only given for actual responses. The total number of responses to all questions is also given to indicate response rate. The higher response rate increases validity and vice versa. .

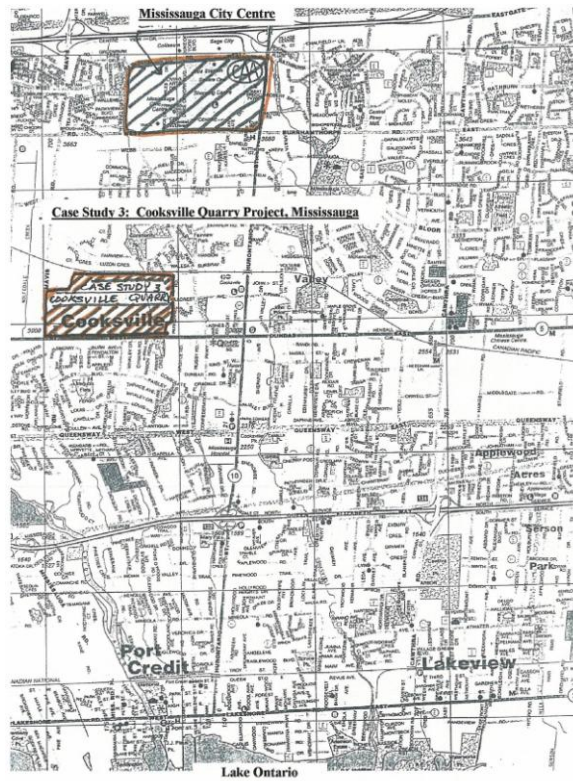


Exhibit 5.5: Case Study Location Map 2, Mississauga
Case Study 3 - Cooksville Quarry Project

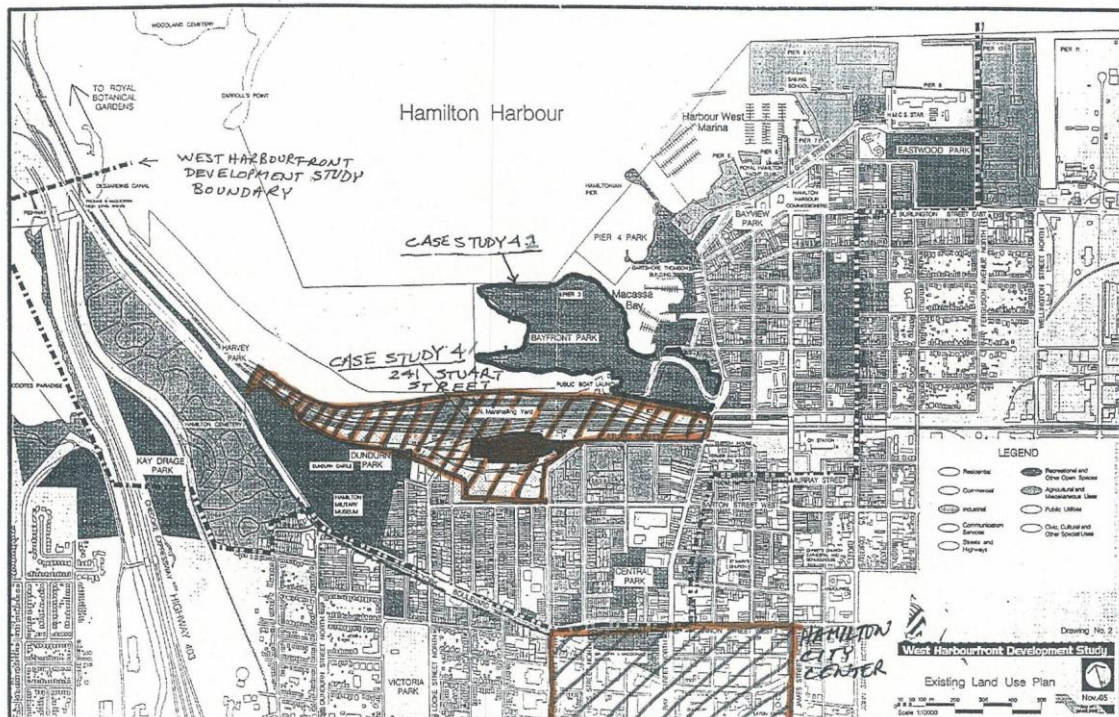


Exhibit 5.6: Case Study Location Map 3, City of Hamilton (Source: City of Hamilton, November 1995)
Case Study 4 – West Harbourfront Development Study, Hamilton
241 Stuart Street & CN Railway Service Yard and Bayfront Park

PART TWO: EMPIRICAL COMPARATIVE CASE STUDY ANALYSIS

Part Two focuses on the analysis of the selected four empirical case studies, outlining the overall planning process and sub-processes (Exhibit 6.1). The analysis will focus on the eight research units of analysis developed in Chapter Five. The empirical case studies are as follows:

- Case Study Area One – The Gooderham & Worts Project – Toronto
- Case Study Area Two – Port Centre Development Project - Toronto (Port Lands)
- Case Study Area Three – Cooksville Quarry Project – Mississauga
- Case Study Area Four – West Harbourfront Development Study – Hamilton
 - 241 Stuart Street and CN Service Yard & Surrounding Area
 - Bayfront Park

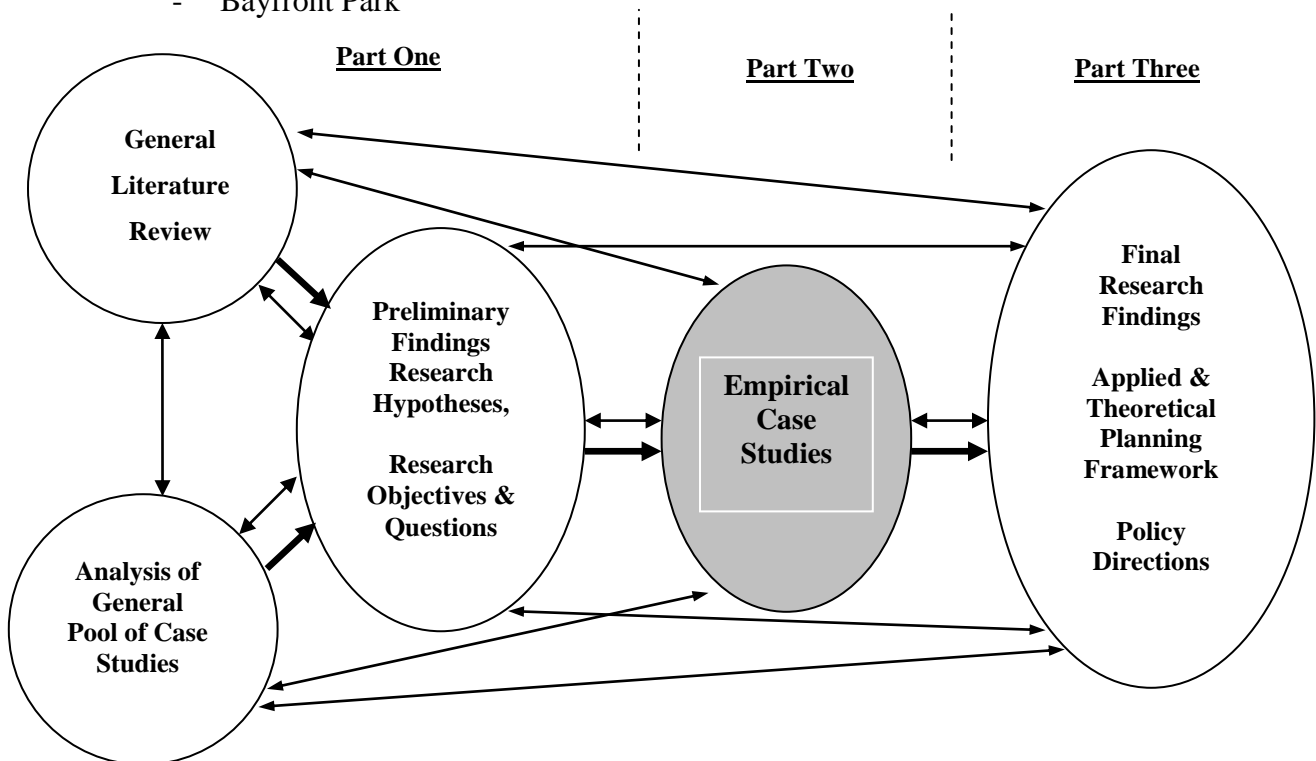


Exhibit 6.1: General Framework for Research Process Elements Highlighting Part Two

Chapter Six through Chapter Nine include an analysis of each of the four empirical case study areas. Chapter Ten includes a comparative analysis and evaluation of findings among the four empirical case studies in order to establish common patterns for the overall planning process as well as for planning sub-processes within individual components.

CHAPTER SIX: CASE STUDY AREA ONE **THE GOODERHAM & WORTS PROJECT – TORONTO**

6.1 GENERAL CASE STUDY OVERVIEW¹⁹⁷

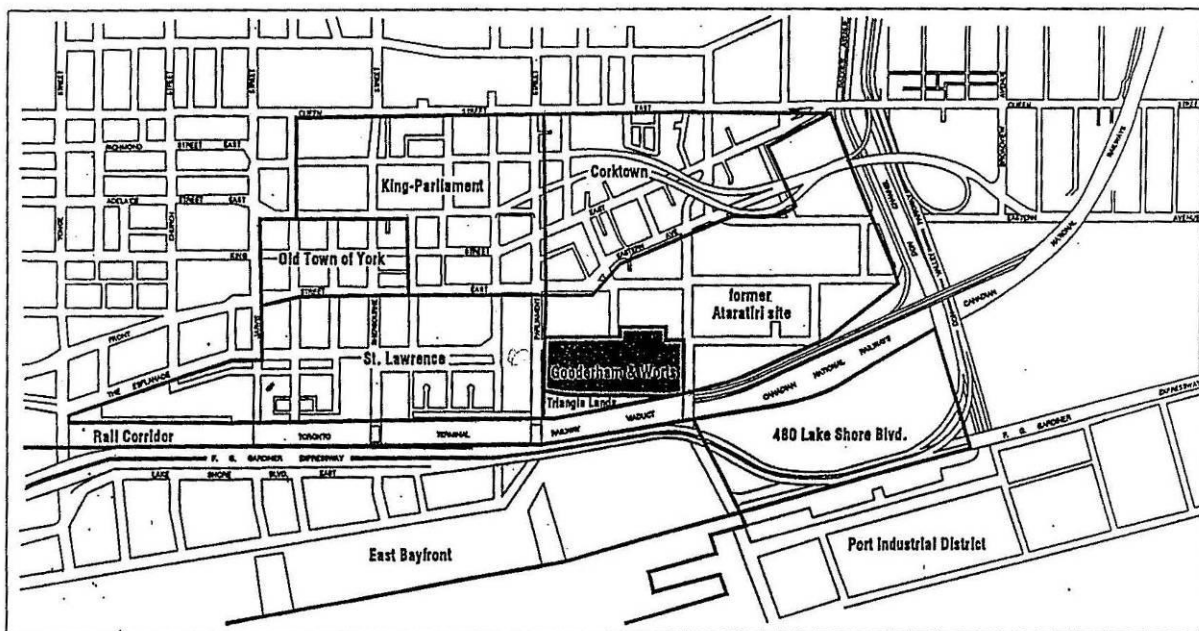


Exhibit 6.2: Gooderham & Worts Project, Site Context Plan (City of Toronto, 1994)

6.1.1 Case Study Site

The Gooderham and Worts (G&W) distillery site was functioning for the period of 1860-1990.¹⁹⁸ The case study site is located at 55 and 60 Mill Street between Parliament Street and Cherry Street, just north of the Gardiner Expressway. The G&W complex occupies a site area of 5.5 hectares (13.6 acres). The project site is just a fifteen minute walk east of today's downtown core in the centre of old Toronto. St. Lawrence neighbourhood lies just west of the site, which was transformed in the mid 1970's from a dilapidated industrial area to a thriving residential community. The project Site is also bounded by King-Parliament industrial area to the northwest, Corktown neighbourhood to the north, the Ataratiri land to the east, and the Gardiner/Lakeshore corridor to the south. Also south of the transportation corridor is the underutilized East Bayfront, which extends to the waterfront including the Port Industrial District.

¹⁹⁷ This case study overview is taken from the report prepared by the Planning Department, City of Toronto, February 1994, titled "Final Report: Official Plan Amendment and Rezoning Application No. 2344 for the Development of a Mixed-Use Project on the Gooderham & Worts Distillery Site, 55 and 60 Mill Street (Ward 7)".

¹⁹⁸ Initially, the project started with a Windmill Line built by James Worts in 1832 to grind flour. With brother-in-law William Gooderham, Worts recycled his waste into whisky, a sideline that proved so successful that a limestone distillery was built in 1859. Other buildings followed in succession until the 1920's (Gooderham and Worts Development Plan, Davies Smith Developments Inc.).

The G&W complex had a strong and distinctive visual and heritage character. Canada's first Parliament once stood close to the Site. Before redevelopment, the Site contained over twenty existing heritage buildings comprising about 35,000 m² of floor area (366,000 sq. ft.). It was considered to be the largest intact industrial heritage site left in Canada. The existing built environment reflects a “*nineteenth century Victorian industrial district*”, which makes it an attractive location for the film industry.

6.1.2 Problems, Challenges, and Opportunities before Redevelopment

The site conditions posed the following problems and challenges:

- Vacant industrial buildings and underutilized site in general (functionally obsolete)
- Site and ground water environmental contamination
- Blighted site image
- The Gardiner expressway separates the site from the nearby waterfront area

However, the site complex offers the following opportunities:

- Proximity to the downtown core and to the waterfront areas
- Availability of significant area of underdeveloped land within an inner city location
- Accessibility from the Gardiner expressway
- Significant architectural and industrial heritage character of site and buildings that are designated as a National Historic Site
- Availability of reusable building floor space
- Site is adjacent to the thriving St. Lawrence residential community

6.1.3 Development History

In the late 1980s, Hiram-Walker Limited, the owners of the G&W distillery, sold the property to Allied Lyons - an international food and beverage conglomerate based in Britain. They in turn sold the G&W distillery to their pension fund – Allied Domecq Pensions Limited, Bristol, U.K. The local owner was Wyndham Court Canada Inc., a wholly subsidiary of the Pension Fund. The development manager was Davies Smith Developments Inc. The owner approached the City of Toronto, Planning and Development Department with informal discussions about the possibility of redeveloping the site for a major mixed-use redevelopment. These discussions triggered various actions by the City, the owner, and other public agencies at various levels. The City, in collaboration with the Toronto Historical Board and the Ministry of Culture, Tourism and Recreation, hired a private Consultant to conduct a heritage study in order to assess heritage resources and to examine development options for the G&W site. The Owner of the G&W retained another private Architectural Consultant to undertake a built form analysis of possible

redevelopment on the site. The G&W site was designated as a National Historic Site. The distillery was closed in 1990.

The Owner filed a development application with the City of Toronto for the G&W site in February 1992. A Development Agreement was signed on December 29, 1995 between the Owner (Wyndham Court Canada Inc.) and the City of Toronto regarding the final approved development plan for the G&W project.

6.1.4 Development Proposal

The development proposal for the G&W project was mixed-use comprising residential, commercial, light industrial, offices, and cultural heritage functions (Exhibit 6.3).

Site and Functional Components:			Percentage (%)
Site Area	5.5 ha	13.1 acres	NA
Existing Floor Area to Remain	33,899 m ²	364,897 sq. ft.	16.5
New Floor Area	171,896 m ²	1,855,334 sq. ft.	83.5
Residential:			40
Market Units: 648 (75%)	62,814 m ²	676,146 sq. ft.	31
Affordable Units: 216 (25%)	18,771 m ²	202,056 sq. ft.	9
Total Units: 864 (100%)	81,585 m ²	878,202 sq. ft.	
Office	83,890 m ²	903,014 sq. ft.	41
Light Industrial	14,410 m ²	155,113 sq. ft.	7
Retail/Restaurant/Entertainment	18,900 m ²	203,445 sq. ft.	9
Cultural/Arts/Heritage	6,510 m ²	700,758 sq. ft.	3
Total Floor Area	205,795 m ²	2,215,231 sq. ft.	100%
Gross Density	3.71		NA



Historic Building Conservation & Site Redevelopment, G&W (City of Toronto, 1994)

The main theme of project development was conservation of architectural-industrial heritage at various levels including: full retention and restoration of existing buildings (an adaptive reuse approach), partial retention and integrating facades with the new development.¹⁹⁹ The proposal involved the retention and restoration of the existing buildings fronting onto Trinity

¹⁹⁹ The existing floor area to be reused constitutes 16.5% of total floor area of the project.

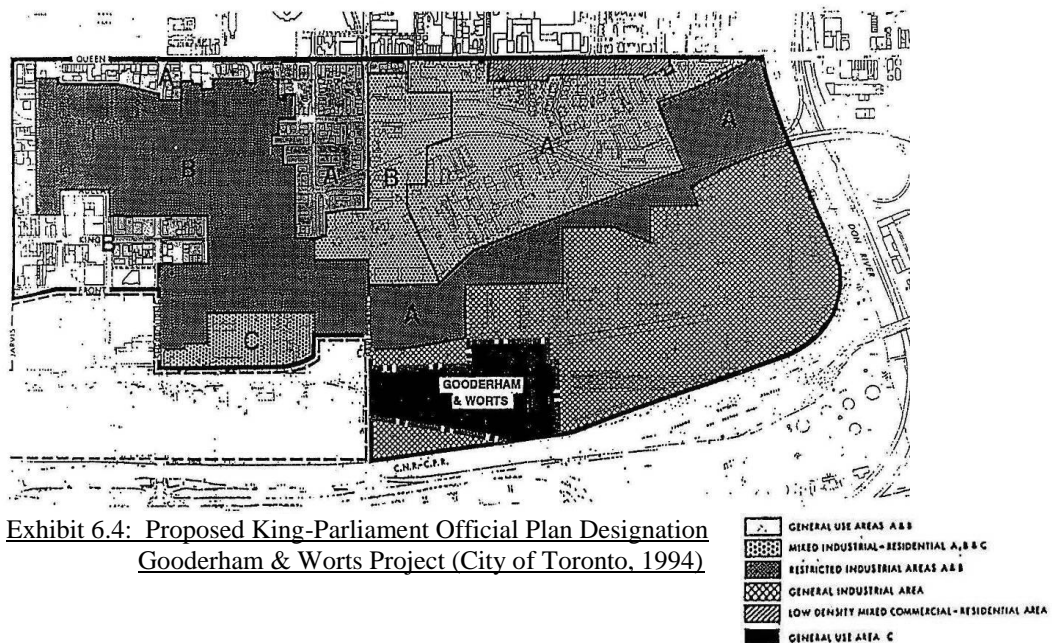
Street primarily for retail, office/studio, and public uses. Trinity Street would provide the focal point for public activity on the site. Cultural heritage functions like a museum also made use of existing buildings.

6.2 ANALYSIS OF PROJECT PLANS AND PLANNING PROCESSES

The redevelopment planning process was primarily performed by the project Owner-Developer as well as the regulatory public authorities that were responsible for redevelopment approval. Community residents and interest groups were involved during the public consultation process.

6.2.1 Government Plans and Planning Policies

The G&W Site is situated within the King-Parliament Part II District Plan Area. The site is designated as a General Industrial Area in the Plan, which permits the construction of industrial buildings only and up to a density of 7.0 times the lot area (Exhibit 6.4). Before redevelopment, the G&W site was zoned I3.D7, which permitted several light, medium, and heavy industrial activities. Any new uses would require rezoning and Official Plan Amendment (OPA). There was no height limit on the site at present. The re-designation would introduce a height limit of 23 meters across the property, which was in keeping with the area height limits.



The City plan was concurrently prepared with the G&W project. It had influenced the planning analysis of the project proposal through the setup of several planning objectives that

formed the basis for diverse planning policies for the redevelopment of the G&W site.²⁰⁰ In the new planning regulation, the G&W project was designated as an area of site plan control to guide incremental redevelopment.²⁰¹ This was a clear implementation phasing strategy for the project.

A private consultant study (Diamond-Schmitt) sponsored by the City provided guiding principles for site redevelopment. Another private consultant study (Mark Fram) sponsored by Toronto Historical Board (later became Heritage Toronto) and the City Planning Department provided heritage assessment of the site. The Studies were adopted by the Board, specifically sections “a) *The Principles for Conserving Buildings*, b) *Principles for integrating Additions and new Construction*, c) *General Physical Design Objectives* and d) *Land Use Objectives*” (City of Toronto, 1994).

An inter-agency Conservation Working Group chaired by the Planning Department with representatives from Toronto Historical Board, Ministry of Culture and Communications, Metro and Parks Canada has prepared the “*Report of the G&Ws Conservation Working Group*”, with recommendations to lower density and height. This inter-agency work was a good example of public-public collaboration and partnership.

6.2.2 Private Sector Plans and Planning Process

The private developer-Owner had commissioned private consultants to perform planning, urban design and heritage studies. The planning processes were addressing project issues and problems at various levels of complexity. A brief outline of the main issues is as follows:²⁰²

1. Heritage Issues and Heritage Planning

The adaptive reuse of the overall site as well as of individual historical buildings became the central planning and design theme throughout the entire project.²⁰³ Historical preservation

²⁰⁰ Cityplan was approved by City Council on July 1993. The planning objectives included the following: • “*The creation of a balance of residential and office uses on the site*, • *The reliance on the development of transit infrastructure as the primary means to access the G&W*, • *The establishment of policies for affordable housing*, • *The establishment of the Gooderham and Worts Area of Special Identity*, • *The introduction of heritage policies into the plan*, • *The introduction of policies relating to rail setbacks and safety*, • *The development of new flood proofing standards as part of the Lower Don Special Policy Area*” (City of Toronto, February 1994).

²⁰¹ As mentioned in the final report for Official Plan amendment and rezoning “*the G&W is not currently designated as an area of site plan control. The new planning regulations will use site plan control to guide the incremental development of the site*” (City of Toronto, 1994).

²⁰² The main planning issues were: 1. *Heritage issues and heritage planning*, 2. *Built form and density*, 3. *Land use diversity*, 4. *Parks, open space and landscaping*, 5. *Community services including daycare and schools*, 6. *Environmental issues including flood proofing, soil and ground water quality (decontamination), noise and vibration, air quality, wind mitigation*, 7. *Physical infrastructure including transit, loading and servicing, parking, sewers, storm water and roads*, 8. *District heating*, 9. *Public art*, 10. *Affordable housing* (City of Toronto, 1994).

strategy included four levels of treatment for existing historical buildings including “*retain and restore, retain partially, integral facades, and demolish*”. Another important design issue was how building density and height would not negatively affect heritage buildings or the existing physical pattern within the site. Also important was the edges of the site in relation to the surrounding areas. Views from the site and toward the site were essential in giving the appropriate perception of the site area itself.

Due to the historical significance of the site, the City of Toronto, in collaboration with other public authorities at provincial and federal levels, sponsored a heritage study for the area. City and public-private reviews of studies and proposals by the developer/applicant, as well as publicly sponsored studies, resulted in City Council requesting a Master Heritage Plan be prepared by the developer/applicant in order to monitor heritage conservation in conjunction with the redevelopment of the site. In addition, the Developer had to submit a Master Development Concept Plan. The Heritage Master Plan was to be completed prior to the implementation of the Official Plan and Zoning By-law to ensure informed building permit decisions (City of Toronto, 1994). Heritage easement agreements were later signed with the Developer in order to secure future monitoring of building maintenance, permitted alterations to historical buildings, and other related heritage issues.

2. Built Form And Density

The main issue of built form and density was how to accommodate economically feasible development density and still be compatible with the heritage character and values of the site. Also, building form studies were conducted in relation to climatic factors including wind and solar radiation. Essentially, massing of buildings was considered in relation to heritage buildings in order to reinforce the geometry of lanes and courts within the complex. New building mass in proximity to heritage buildings has been reduced. The conceptual design of the project included lower buildings toward the center of the site, where heritage buildings were mostly concentrated, and higher buildings with more floor area on the periphery of the site.²⁰⁴

²⁰³ The major guiding theme in the planning process was the “*sensitive restoration, conservation and re-use of the existing heritage buildings on the G&W sites plus the development of a comprehensive historic interpretation program will be vital in helping G&W reach its potential*” (City of Toronto, 1994).

²⁰⁴ The total proposed floor area of the project was 206,000 m², which was decreased by about 4% from the original 214,000 m². Additional land was added to increase site area from 4.5 hectares (11.3 ac) to 5.5 hectares (13.1 ac). The gross development density (floor area ratio, FAR) of the proposal was 3.71 compared to FAR 3.2 for St. Lawrence neighbourhood, and FAR 7 as currently permitted in the existing Official Plan designation for industrial use (City of Toronto, 1994).

3. Land Use Diversity

The land use approach was to encourage a broad land use mix for the site to be an area for living, working, shopping and entertainment. This was planned in a mosaic of five integrated “*Special Identity Districts*”, including “*Trinity Street Heritage District, Parliament Street Residential District, Mill Street Residential District, Cherry Street Commercial District, and South Street Open Space District*”. The Heritage District was the heart of the project and priority one in terms of phasing of implementation.

Land use mix was an incentive for the Developer, which included residential, retail, office, light industrial, and cultural functions. The main objective for land use diversity was to ensure that the site would be active at all times of the day. It would also help ensure that the peak hour impacts on transit and roads are spread out.

4. Parks, Open Space and Landscaping

The main theme in landscape design for open spaces was to enhance the heritage character of the site and its buildings. The site will be highly accessible to the public. Over 50% of the ground plain will be comprised of lanes, courtyards and parkettes. It was done through the simulation of historic elements of the landscape including, past lighting, planting, and street furniture once found on the site, and which was to be outlined in the Heritage Master Plan. Due to large scale and complexity of the project, City approval requirements included submission of a comprehensive landscape plan and a comprehensive streetscape improvement plan.

5. Environmental Issues and Planning

There were three major kinds of environmental problems including:

- *The Gooderham and Worts Site is within a flood plain and requires flood proofing*
- *Soil and ground water contamination*
- *General environmental conditions to be mitigated included noise and vibration, air quality, wind mitigation, and sun and shade studies*

Flood Proofing

The flood proofing strategy for the site was affected by an overall Special Policy Area Designation for the flood lands east of Yonge Street as part of the Part I Official Plan. The objective of the flood proofing strategy was to achieve flood protection to at least the 1 in 350 year storm level.²⁰⁵ The flood proofing strategy affected both planning and design decisions.²⁰⁶

²⁰⁵ The flood proofing strategy for the project had to fulfill this objective & to be accepted by Metro Toronto & the Region Conservation Authority in order to approve the Official Plan Amendment & rezoning(Cityof Toronto, 1994).

Detailed flood proofing requirements for individual buildings would be resolved incrementally on each building site basis and as part of the development review and building permit process.

Soil Quality – Soil and Ground Water Contamination

The G&W site had soil and ground water contamination caused by site functions and abutting land uses. Ground water had coal tar contamination caused by gasification within surrounding land uses. Coal tar contamination migrated cross-site boundaries, which made it difficult to define area limits and liability for decontamination. Soil was also contaminated with solid contaminants including PCBs, but this type of contamination was relatively more easily defined for cleanup for each individual site.

The Developer and his environmental consultant, the City Environmental Health Officer, and MOE, agreed on a strategy to investigate soil conditions and plan the remediation strategy on a site-by-site basis. This included an Environmental Site Assessment and Phase One (ESA-1) and Phase Two (ESA-2). ESA-1 included a site history of the industrial activities at G&W. ESA-2 included a site remediation plan with level two risk management plan. The developer's private environmental consultant prepared an overall long-term Protocol for site environmental assessment, which worked as a general conception for an implementation strategy. The detailed remediation strategy would be site-specific risk assessment (SSRA) and risk management and would be approved through a site plan approval process.²⁰⁷ The City was directly responsible for processing the site remediation approval process with the Applicant and would inform MOE.²⁰⁸

The site remediation plan for ground water with coal tar contamination included installation of a below grade barrier around each site to stop migration of contaminants from outside the site, and then to perform coal tar clean-up to a certain agreed upon level with the City Environmental Health Officer and MOE.²⁰⁹ Given that part of the coal tar contamination was still remaining after site remediation, environmental monitoring was required for a period of 70

²⁰⁶ Such decisions included: • Ramps to underground parking must have berm like Protection at the building edge, • The pedestrian egress from new buildings on the site must lead to dry areas above the flood level, • Building floor levels will have to be above the flood elevation, • The existing floor levels of the heritage buildings tend to be raised in any event, • The site would have some amount of landfill especially in the areas of the new buildings at the southeast corner of the site (City of Toronto, 1994).

²⁰⁷ Site Plan Approval process would be based on Section 41 of the Planning Act which may also include entering into a development agreement.

²⁰⁸ The review of the site remediation process was performed by the City Environmental Health Officer, Department of Public Health and to be finally approved by the Medical Health Officer, who was the ultimate health authority in this regard (Key Participants' Interviews, 2000).

²⁰⁹ The first two sites for performing the environmental assessment and remediation included the sites at 39 Parliament Street and 55 Mill Street (Key Participants' Interviews, 2000).

years.²¹⁰ The MOE required an independent peer group review of the proposed site remediation plan to be arranged by the Applicant. The peer review report was reviewed and the site remediation plan was finally approved by the City Environmental Health Officer and accepted by MOE. The site remediation plan, including all requirements by the City and MOE would form part of the Agreement between the City and the Developer. After site environmental remediation, a Record of Site Conditions (RSC) had to be submitted to the City Environmental Health Officer and to MOE. Record of Site Condition was also registered on the title of the property.

General Environmental Conditions

These included noise and vibration effects, air quality, wind mitigation and sunshade studies. *Noise* and *Vibration* were potential effects of the adjacent rail corridor upon the development, even though the system met city requirements. Detailed noise and vibration studies for individual buildings were required as part of the development review process.

6. Affordable Housing

The objective of Part I Official Plan required 25% of housing units to be social housing. The housing units were to be built by the Developer and then to be turned over to non-profit users.

6.2.3 City Implementation Strategy

City implementation strategy was basically the legal framework and tools for implementing the project, which were briefly as follows:

Official Plan

The Official Plan for the site was to be implemented in a two-part strategy. The first was to designate the site as “*General Use Area*” to allow for land use diversity and to treat the site as a “*Special Identity Area*” (Exhibit 6.4). The second part of the Official Plan was to allocate use and density according to the five special identity districts mentioned earlier, each identified with a unique role in the proposed development.

According to City recommendation, the first District to be implemented was “*Trinity Street Heritage District*”. Trinity Street is the focus of the historic buildings to be retained and restored. Mill Street is the major linkage to neighbouring districts and the focus of neighbourhood services. “*Parliament Street Residential District*” includes the major residential development. “*Cherry Street District*” is the major commercial development. The area at the southern limit of the site is proposed to be used as an open space.

²¹⁰ Environmental monitoring was required by the City Environmental Health Officer, Medical Health Officer, and MOE (Key Participants’ Interviews, 2000).

Zoning By-law

Site rezoning was required to achieve project objectives in terms of mixed land use, introduction of public functions, environmentally sensitive built form, heritage preservation, and others. Current zoning permitted several light, medium, and heavy industrial activities with no building height limit. Rezoning designation would allow maximum non-residential gross floor areas including offices, commercial, and light industrial. Site-specific zoning by-laws were also proposed to specify the use of each building. The new building height limit was 23 metres. This height limit would vary, being lower in the historic districts and higher on the site periphery.

Public Benefits in Exchange of Additional Height: Section 37 of the Planning Act

To achieve the objectives of providing public benefits, such as heritage conservation and provision of public functions, the City was granting the developer extra height in certain locations in the project redevelopment in order to balance the added cost of providing public benefits. The City was using Section 37 of the Ontario Planning Act as a legal basis to allow and implement that exchange.²¹¹ That was a form of agreement between the City and Developer which was a form of Public-Private partnership and Section 37 of the Ontario Planning Act was the legal tool to achieve this Partnership.

Master Development Agreement: Section 41 of the Planning Act

A Master Development Agreement was made between the City of Toronto and the developer in order to have City control over general features in the development. The agreement was based on Section 41 of the Planning Act.²¹² In addition to master plan control, the City would approve site plan control applications for individual sites. The Master Development Agreement may be amended as sites were being developed and changes at site level occur.

Heritage Easement Agreements: Section 37 of the Ontario Heritage Act

The Heritage Easement Agreements would describe the existing building conditions and the important heritage building fabric to be preserved. Also considered in the Heritage Easement was

²¹¹ Section 37 of the Ontario Planning Act states: “(1) **Increased density, etc., provision by-law.** – The council of a local municipality may, in a by-law passed under section 34, authorize increases in the height and density of development otherwise permitted by the by-law that will be permitted in return for the provision of such facilities, services or matters as are set out in the by-law. 1983, c. 1, s. 36(1).” (Ontario Planning Act, R.S.O. 1990).

²¹² Section 41 of the Ontario Planning Act states in Subsection: “(7) **Conditions to approval of plans.** – As a condition to the approval of the plans and drawings referred to in Subsection (4), a municipality may require the owner of the land to, ... (c) enter into one or more agreements with the municipality dealing with and ensuring the provision of any or all of the facilities, works or matters mentioned in clause (a) or (d) and the maintenance thereof as mentioned in clause (b) or with the provision and approval of the plans and drawings referred to in subsection (4)” (Ontario Planning Act, R.S.O. 1990).

provision of interim maintenance, security and heating. The Toronto Historical Board and the developer collaborated in preparing descriptions for the Heritage Easement Agreements.

Social Housing Agreement

Provision for social/affordable housing was one main social objective in the G&W project.²¹³ Eventually, 216 social housing units (25%) were provided in the project development proposal.

6.3 KEY PARTICIPANTS' INTERVIEWS – Analysis & Findings – G&W

Taped Interviews with open-ended questions were conducted for eleven primary Participants in the project as key informants representing the public sector, private sector, and local community residents and groups.²¹⁴ Only eight participants completed the structured questionnaire for impact evaluation of selected problems/issues and policy directions as viewed by the Participants. The analysis will follow the same format of the eight research units of analysis used in the overall structuring of the interview questionnaire, which were originally derived for the empirical research method in Chapter Five.²¹⁵

6.3.1 Key Participants' Interview Responses on Environmental-Legal Planning Sub-process - Site Remediation Planning – G&W

The main environmental issues and problems included soil and ground water contamination, flood protection, and other environmental conditions above ground including wind mitigation, sun shade, and noise protection from adjacent CN rail. Soil contamination was from industrial functions within the site and ground water contamination was primarily from migratory coal tar contamination that resulted from gasification processes within adjacent sites. There were real liabilities of contamination; however, it was difficult to define legal liability for coal tar contamination due to its migratory nature and originating from surrounding properties.²¹⁶ The

²¹³ In the Final Report, the City of Toronto made a recommendation “*Provided that there is an allocation of subsidy monies to construct social housing within the definition of a “Social housing program as contained in the City of Toronto Act, 1988 (no. 2): (a) that City Council resolve that 220 of the housing units to be provided ... is for the purposes of a social housing program...; and (b) that the City Solicitor prepare a Social Housing Agreement to give effect to the terms and conditions as outlined in the body of this report.*” (City of Toronto, 1994).

²¹⁴ Public sector representation included the City of Toronto, Heritage Toronto, Ministry of Culture, and MOE. Private sector representation included heritage planning and design consultants, in addition to the Developer for social housing. Local residents included a community organizer and a lawyer. See Appendix A5.1.1 for an outline of interviewed Participants including their professional title and affiliation. Also see Appendix A5.2 for the open-ended interview questionnaire (Exhibit 5b) and structured interview questionnaire (Exhibits 6b & 7b).

²¹⁵ The eight research units of analysis include the environmental-legal component, physical-functional component, economic component, social component, political-organizational component, implementation, key policy direction (TIF/TIEF), and the overall planning process.

²¹⁶ As outlined by the City project planner, the Developer filed law suit against former owners of surrounding properties based on coal tar contamination originating from previous gasification processes within surrounding sites. Also, the City requested partial indemnity from the Developer from lawsuit in case they cannot perform risk

site remediation planning approach was site specific risk assessment (SSRA) developed as a general protocol for the entire site by a private consultant in collaboration with the City and MOE. The actual implementation was on a site by site basis following site plan approval process. In some cases, the site remediation plan incorporated type of construction as part of the process as in one of the buildings for social housing.²¹⁷ Approval of site remediation plan was processed through the City Environmental Health Officer. Monitoring of ground water contamination levels was required during and after project implementation since part of the contamination was left in-site and only engineering barriers were used for risk mitigation.²¹⁸

Impact Evaluation of Environmental Problems & Selected Policy Directions²¹⁹

The “*Environmental-Legal Component*” was a central problem in the overall redevelopment process. According to responses from key participants in the process, the overall average impact level for the environmental problem component ranked “● strong” (Exhibit 6.5). The problem of “*environmental site contamination*” was perceived as “●-■ strong-very strong” impact, while the problems of “*real legal liabilities of contamination*”, “*clarity and consistency of government approval process*”, and “*length of government approval process*” ranked “● strong” impact, which indicate their relative importance in this case.

Exhibit 6.5: Impact Levels of Problems & Policy Directions: Environmental-Legal Component- G&W		
Level of Impact	Problems and Issues	Policy Directions/Guidelines
Very Strong	■	● MOE Sign off on SSRA.
Strong -very Strong	●-■	● Environmental site contamination
Strong	●	● Real legal liabilities of contamination. ● Length of procedure (time delay) of current government approval process. ● Clarity & consistency of government approval process
Moderate-Strong	▲-●	● Human & natural ecosystem health hazard. ● Future legal liabilities of contamination. ● Perceived legal liabilities of contamination. ● Government commitment to approval for site remediation. ● Addressing environmental contamination & site remediation in the beginning of the process. ● Conditional lift of future liability of contamination from new purchasers of already cleaned sites.

assessment. Basically the City owned some surrounding sites (like the Ataratiri site for seven years) which had previously contributed to contamination (Key Participants’ Interviews, 2000).

²¹⁷ As outlined by the Developer for social housing, the construction of the below grade parking garage was part of the site remediation plan (Key Participants, Interviews, 2000).

²¹⁸ As outlined by the City Environmental Health Officer, ground water monitoring was required for 70 years (Key Participants’ Interviews, 2000).

²¹⁹ See Appendix A6.1 and Appendix A6.2 for complete responses from Key Participants on the structured/ written interview questionnaire. The Environmental-Legal component included the highest response rate of 88% for problems impact and 67% for policy directions of the total number of actual questions for this component.

Moderate	▲	• Current legal liabilities of contamination and decontamination	•
Weak	□-▲		• Defining and confining legal liabilities (current & future) for contamination/ decontamination to viable limits.
Overall Average		Strong (●)	Moderate-Strong (▲-●)

The overall average for the environmental policy directions ranked “▲-● moderate-strong” impact. The policy direction of “*MOE Sign off on SSRA*” was perceived as having “■ very strong” impact.²²⁰ While the policy directions of “*addressing environmental contamination & site remediation in the beginning of the process*” and “*conditional lift of future liability of contamination ...*” ranked “▲-● moderate-strong” impact. This indicates importance of the policy directions to this case.

6.3.2 Key Participants’ Interview Responses on the Physical-Functional Component – Land Use Planning, Heritage Planning – G&W

The overriding planning and design issue was preservation of heritage buildings that occupied most of the site area. Another important land use planning objective was to achieve mixed-use functional theme to keep the site active throughout the whole day. As outlined by the city project planner, the main urban design challenge was to decide on the appropriate size of new development, its location and height of buildings without adversely affecting the character of heritage buildings. In addition, main urban design objectives were also to maintain the existing physical pattern within the site and to achieve pedestrian oriented area as well as to increase public accessibility to heritage buildings and site.²²¹

Another related issue was the incentives for the developer to balance the cost of heritage conservation. The mixed-use development was an economic incentive to the developer in comparison to the original industrial zoning for the site. Density, height and location of new development were also important issues in the negotiation between the City and the developer in order to balance the cost and value of heritage conservation.

²²⁰ MOE approval on the site remediation process that is based on Site Specific Risk Assessment (SSRA) provides confidence for the Developer and better perception of future liabilities as shared between the Developer and the approval authorities (Key Participants’ Interviews, 2000).

²²¹ As outlined by the planning and design consultant commissioned by the Developer, a 3D computer modeling was employed to determine the site development capacity and hence the appropriate size of new development, its location and building heights. The model was based on visual terms including scale and views to and from the site including heritage buildings. The recommended development density was 3.5 (times site area) compared to the original industrial zoning density of 7 for the site. The City and related public authorities were in agreement with the results but local citizens’ groups were in disagreement (Key Participants Interviews, 2000).

The planning proposal included an extensive adaptive reuse of heritage buildings which was achieved through a heritage easement agreement between the city and the developer. The new mixed-use complex required Official Plan amendment and rezoning. A master development concept plan and a heritage master plan were prepared to guide the redevelopment process on an incremental site by site basis and following site plan approval process.

Impact Evaluation of Physical-Functional Problems & Selected Policy Directions²²²

The overall average impact evaluation of problem ranked “▲-● moderate-strong” according to key participants’ responses (Exhibit 6.6). The outstanding problems were “vacant or abandoned buildings and sites,” that ranked “●-■ strong-very strong” and “underutilized buildings and sites” that ranked “● strong” impact. “site visibility and accessibility from main transportation routes” was perceived as having “▲-● moderate-strong” impact. “declining environmental image” and “availability of public transportation” ranked “▲ moderate” impact. “physical dilapidation of buildings” and “deterioration of physical infrastructure network” were perceived having “□-▲ weak-moderate” impact.

Exhibit 6.6: Impact Levels of Problems and Policy Directions: Physical-Functional Component - G&W			
Level of Impact		Problems and Issues	Policy Directions/Guidelines
Strong – v. Strong	●-■	<ul style="list-style-type: none"> • Vacant or abandoned buildings and sites 	
Strong	●	<ul style="list-style-type: none"> • Underutilized buildings & site. 	<ul style="list-style-type: none"> • To reclaim lost urban space. • To maintain a balance between heritage conservation & urban innovation.
Moderate-Strong	▲-●	<ul style="list-style-type: none"> • Accessibility to main transportation routes. • Site visibility from main transportation routes. 	<ul style="list-style-type: none"> • To prepare an inventory of contamin. sites. • To achieve environments with a sense of place and community
Moderate	▲	<ul style="list-style-type: none"> • Declining environmental image of the area. • Availability of public transportation. 	
Weak	□-▲	<ul style="list-style-type: none"> • Physical dilapidation of buildings. • Deterioration of physical infrastructure. 	
Overall Average		Moderate-Strong (▲-●)	Strong (●)

The overall average impact evaluation of policy directions ranked “● strong” impact according to key participants’ views. All policy directions ranked relatively high and in the range of “● strong” to “▲-● moderate-strong” impact. These values are consistent with the high impact level for outstanding problems of vacant, abandoned, underutilized buildings and sites.

6.3.3 Key Participants’ Interview Responses Economic Component – Financial Planning and Marketing – G&W

²²² See Appendix A6.1 and Appendix A6.2 for complete responses from Key Participants on the structured/ written interview questionnaire. The Physical-Functional component included a response rate of 73% for problems impact and 72% for policy directions of the total number of actual questions for this component.

The project was privately financed through the Developer. Also, the Developer arranged financing for site remediation for social housing areas. Construction of social housing was privately financed through the secondary Developer (Options for Homes). Availability of financing was a critical factor especially in the first phase of site remediation since private banks did not provide the needed capital.²²³ Also, the cost of heritage conservation was an issue especially during the recession of the 1990s and public capital was not easily available. Project financial feasibility was based on increased development density and the mixed use functions to balance the cost of heritage conservation. As stated by the City project planner, favourable circumstances for marketing included the distinctive heritage character of the site, existing demand for social housing, and location next to the thriving St. Lawrence neighbourhood.

Impact Evaluation of Economic Problems & Selected Policy Directions²²⁴

The overall average impact for selected problems ranked “▲-● moderate-strong” (Exhibit 6.7). “*High cost of building conservation, renovation & restoration*” ranked the highest impact level of “●-■ strong-very strong”, which indicates its significance. Also, the problems of “*scarcity of public & private funding*” and “*declining economic redevelopment market*” ranked “● strong” impact which interactively affected project financing and marketing, especially with a high cost of heritage conservation. “*Impact of site remediation cost on project financing,*” “*project perception as economically not feasible,*” and “*declining property values and tax base*” ranked “▲ moderate” impact. Overall, and even though there were perceived risks, the project was financially feasible.²²⁵

Exhibit 6.7: Impact Levels of Problems and Policy Directions: Economic Component - G&W		
Level of Impact	Problems and Issues	Policy Directions/Guidelines
Strong - Very Strong	●-■ • High cost of building conservation, renovation & restoration.	
Strong	● • Scarcity of public & private funding. • Declining economic redev. market.	
Moderate -Strong	▲-●	• To arrange for early marketing.
Moderate	▲ • Impact of site remediation cost on project financing. • Project perception is econ. not feasible. • Declining property values and tax base.	• To establish Public-Private partnership for project financing.
Weak - Moderate	□-▲	• To develop financial/redevelopment Incentives.

²²³ As stated by the Developer for social housing, private banks were reluctant to provide finance until project approval was obtained and site remediation was completed. He gave an example of one building with an estimated cost of \$20 million and the provided private finance was about \$300,000. (Key Participants’ Interviews, 2000).

²²⁴ See Appendix A6.1 and Appendix A6.2 for complete responses from Key Participants on the structured interview questionnaire. The Economic component included a response rate of 67% for problems impact and 59% for policy directions of the total number of actual questions for this component.

²²⁵ Interview with the project Developer for Coop housing (Key Participants’ Interviews, 2000).

Weak	□		• Availability of environmental liability insurance to cap site remediation costs and control future liabilities.
Overall Ave.		Moderate-Strong (▲-●)	Moderate (▲)

The overall average impact level for policy directions ranked “▲ moderate”. “Arrangement for early marketing” ranked “▲-● moderate-strong” impact. While “establishing public-private partnership” ranked “▲ moderate” and “developing financial/redevelopment incentives” ranked “□-▲ weak-moderate” impact.

6.3.4 Key Participants’ Interview Responses on the Social Component – Social Issues, Social Equity and Safe Community Planning – G&W

The project included several social and socio-political issues and objectives including heritage conservation, provision of 25% social housing and public functions, as well as increasing public access to the project by providing public transit within the site.²²⁶ In addition, the design objective was to make the project site as a pedestrian area which will enrich social interactions.

Heritage conservation was the most important factor in the planning and design process and was advocated by all public levels, heritage groups and community residents. The main conflict emerged from heritage groups who did not want development to start with and local residents who were concerned about impact of development density and height on heritage building, which was eventually resolved.²²⁷ Heritage conservation added significant value and helped in project marketing.

In general, there were no issues of social inequity in the redevelopment process. Before redevelopment, the job losses due to the closure of the previous G&W distillery were relatively minimal and did not raise issues among local residents.²²⁸ Also there were no significant social

²²⁶ As mentioned by a local resident, there was general consensus among local residents that the project was achieving social objectives and they were happy about the provision of owner-occupied housing in general and social/affordable housing in specific, in addition to the provision of cultural and public art functions including a museum. (Key Participants’ Interviews, 2000).

²²⁷ As outlined by the City project planner and by a local resident, objection came only from a faction of the heritage community, which did not want any new development within the heritage site. While the local residents wanted a balanced trade-off between new development and heritage conservation. The residents’ concern was about scale, location and height of new development due to impact on heritage buildings and concern about proliferation of high density growth in the area and changing neighbourhood character. Finally, the parties came into agreement with the City and the Developer at the OMB. This implied moving development density and building height from one location to another within the project site (Key Participants’ Interviews, 2000).

²²⁸ As outlined by the City project planner, the number of lost jobs was about 50, while the number of new jobs will exceed this figure considerably (Key Participants’ Interviews, 2000).

insecurity issues or vandalism reported within the site or buildings when development was undergoing and the site became more occupied by residents and users.²²⁹

Impact Evaluation of Social Problems & Selected Policy Directions²³⁰

The overall average impact of social problems ranked “□-▲ weak-moderate”, which indicates relative insignificance of selected social problems in the process (Exhibit 6.8). The highest ranking problem was “*social stigmatization of the area*”, which rated “▲ moderate” impact and this was primarily related to site contamination in addition to being a vacant/inactive area. While “*social problems associated with abandoned buildings/sites*” and “*social inequities and injustice*” ranked “□-▲ weak-moderate”. It is important to note that the project achieved important social and socio-economic objectives including job generation, social/affordable housing, and significant heritage conservation and public activities. This in a way explains the reasoning for the low impact level of selected social problems.

Exhibit 6.8: Impact Levels of Problems and Policy Directions: Social Component – G&W			
Level of Impact		Problems and Issues	Policy Directions/Guidelines
Moderate	▲	<ul style="list-style-type: none"> • Social stigmatization of the area 	<ul style="list-style-type: none"> • To achieve socially safe environment through community participation.
Weak - Moderate	□-▲	<ul style="list-style-type: none"> • Social inequities/injustice due to negative socio-economic impact. • Social problems associated with abandoned sites (vandalism & crime). 	<ul style="list-style-type: none"> • To foster social equity and justice through community participation.
Weak	□		<ul style="list-style-type: none"> • Securing accessibility of local residents to newly provided opportunities.
Weak - Very Weak	○-□	<ul style="list-style-type: none"> • Low education levels and high unemployment rate among residents enhance problems of job accessibility 	
Overall Average		Weak-Moderate (□-▲)	Weak-Moderate (□-▲)

Similarly, the overall average impact of selected social policy directions ranked “□-▲ weak-moderate,” which generally indicates such policies were relatively not that effective in this project. However, “*Achieving socially safe environment through community participation*” ranked “▲ moderate” which indicates its relative importance.

²²⁹ As viewed by a local resident, before redevelopment the site was relatively vacant and there were social security issues. After completion of the first residential building on Mill Street, residents were concerned about outside security issues when walking to and from the residential building along a relatively vacant street. However, inside the building there were no security issues (Key Participants’ Interviews, 2000).

²³⁰ See Appendix A6.1 and Appendix A6.2 for complete responses from Key Participants on the structured interview questionnaire. The Social component included a response rate of 47% for problems impact and 42% for policy directions of the total number of actual questions for this component. The response rate was relatively low because some of the Participants may not have enough information about this component.

6.3.5 Key Participants' Interview Responses on the Political-Organizational Component – Stakeholders' Collaboration and Partnerships – G&W

The main conflicting issues among stakeholders were level of heritage conservation and newly added development density including building height and location. As discussed earlier, the main conflict was primarily from certain heritage groups and the issue was finally resolved at the OMB. However, there was collaboration between local resident groups and public authorities which helped in the general awareness and acceptance of the new redevelopment. Also, the developer arranged project presentations to local neighbouring communities to gain community support which helped in increasing awareness and getting public opinion.²³¹

The planning process included different forms of collaboration and partnerships. There was consensus among the City and related public authorities on heritage conservation as a main part of the redevelopment and formed a public-public partnership to establish objective criteria for heritage evaluation and conservation.²³² Also, there was public-private collaboration primarily between the City and the private Developer. There was extensive negotiation regarding the balance between level of heritage conservation and newly built development density including building height and location.²³³ The project approval process was finalized with a master development agreement that included several agreements.²³⁴ Community collaboration and involvement in the project was partly with the City and partly with the private Developer but there was no combined public-private-community collaboration.

Impact Evaluation of Political-Organizational Problems & Selected Policy Directions²³⁵

The overall average for the impact level of selected problems ranked “▲-● moderate-strong” which indicates their relative importance (Exhibit 6.9). Four of the selected problems ranked “▲-● moderate-strong” impact including “*conflicting goals of primary stakeholders*”, “*lack of*

²³¹ The general consensus among local residents was to have the new redevelopment was better than the existing derelict condition of the G&W site and the neighbouring West Don Lands (Key Participants' Interviews, 2000).

²³² As outlined by the City project planner, the public-public partnership included federal, provincial and local levels. The target was to prepare a working paper that would establish objective criteria for heritage conservation. This will be the basis for the approval process for heritage conservation (Key Participants' Interviews, 2000).

²³³ Alongside the Developer's planning process, the City of Toronto was also performing its own project planning and commissioning private urban design and heritage planning consultants to achieve a better result. This public-private dual planning process enriched planning results & the approval process (Key Participants' Interviews, 2000).

²³⁴ The master development agreement also included heritage, social/affordable housing, and day care agreements. These agreements were in essence a form of partnership between the City approval authority and the Developer.

²³⁵ See Appendix A6.1 and Appendix A6.2 for complete responses from Key Participants on the structured interview questionnaire. The Political-Organizational component included a response rate of 68% for problems impact and 34% for policy directions of the total number of actual questions for this component. The response rate for selected policy directions was relatively low, possibly due to limited knowledge about this component.

stakeholders' commitment to achieve objectives", "lack of stakeholders' consensus", and "lack of stakeholders' organizational and collaborative commitment". In general, despite the existence of some conflicting goals among primary stakeholders, there was collaboration at different public levels as well as public-private collaboration in the actual planning process, especially in the concurrent review and amendment of the City Official Plan as well as in sponsoring heritage studies aside from the Developer's sponsored heritage studies.

Exhibit 6.9: Impact Levels of Problems and Policy Directions: Political Component - G&W		
Level of Impact	Problems and Issues	Policy Directions/Guidelines
Moderate - Strong	▲-● <ul style="list-style-type: none"> • Conflicting goals, interests, and values of primary stakeholders. • Lack of stakeholders' commitment to achieve objectives. • Lack of stakeholders' consensus on major objectives & issues. • Lack of stakeholders' organizational and collaborative commitment. 	<ul style="list-style-type: none"> • To establish public-private- community partnership.
Weak - Moderate	□-▲ <ul style="list-style-type: none"> • Lack of special redevelopment authority that is directly responsible. 	<ul style="list-style-type: none"> • To establish Public-Public partnership
Weak	□	<ul style="list-style-type: none"> • To establish Public-Private partnership
Weak – v. Weak	○-□	<ul style="list-style-type: none"> • To develop special redev. authority.
Overall Average	Moderate (▲-●)	Weak-Moderate (□-▲)

The overall average impact level for selected policy directions rated "□-▲ weak-moderate". The highest ranking policy direction was "fostering public-private-community partnership" that rated "▲-● moderate-strong" impact which indicates its relative importance in this case. While the policy directions of "public-public partnership" ranked "□-▲ weak-moderate" impact and "public-private partnership" ranked "□ weak" impact. Even though there was no public-private development partnership in the sense of ownership, there was a development agreement at the end that formed the core of the development approval process. In essence, the development agreement between the Developer and the City was another form of Public-Private partnership in the process. The policy direction "developing a special redevelopment authority" ranked "○-□ very weak-weak" impact which indicates its relative insignificance in this case, especially when such an authority was not applicable to this case.

6.3.6 Key Participants' Interview Responses on Implementation Planning & Phasing

The project was initiated by a private Developer and the City was fostering the project after application. Due to the large size of the project, implementation was planned in 10-12 phases.²³⁶

²³⁶ Interview with the City project planner (Key Participants' Interviews, 2000).

The redevelopment process was incremental on a site by site basis following site plan approval process. However there was a master development concept plan. Site remediation also included a general protocol for the entire project area as well as remediation on a site by site basis together with individual site redevelopment. Implementation of individual site remediation and site redevelopment was performed concurrently because building construction was part of the site remediation approach.²³⁷ The environmental approval process together with other site plan approval took relatively longer time due to the complexities of issues including heritage preservation and site remediation.²³⁸

Impact Evaluation of Problems & Selected Policy Directions – Implementation Planning²³⁹

The overall average of impact evaluation of selected problems ranked “▲-● moderate-strong,” which indicates their significance in this project (Exhibit 6.10). The relatively high ranking problems were “*difficulty of project initiation due to high risks and uncertainty*” and “*long time delays in the process*,” which rated “▲-● moderate-strong” impact. While the problem of “*difficulty of phasing site remediation as the first phase and site redevelopment as the second phase*” ranked “▲ moderate” and “*difficulty of gradual implementation due to site conditions*” ranked “□-▲ weak-moderate” impact. Based on site conditions, gradual implementation of the project was not conceived as a problem.²⁴⁰ The results of impact evaluation of selected policy directions revealed that the overall average ranked “● strong” impact which indicates their potential applicability.

Exhibit 6.10: Impact Evaluation of Problems & Policy Directions: Project Implementation - G&W		
Level of Impact	Problems and Issues	Policy Directions/Guidelines
Strong	●	<ul style="list-style-type: none"> Addressing site remediation 1st & site redevelopment as 2nd phase. Adopting gradual site remediation & redev. strategy especially for large sites
Moderate – Strong	▲-●	<ul style="list-style-type: none"> Difficulty of project initiation due to high risk & uncertainty. Long time delays in the process.

²³⁷ Interview with the Developer for social housing (Key Participants’ Interviews, 2000).

²³⁸ As conveyed by the Developer for social housing (Options for Homes), the approval process took 6-12 months instead of 2 months due to the complexity of issues involved. As outlined by the City project planner, several measures were adopted in order to expedite the approval process including parallel processing of tasks and streamlining of commenting (Key Participants’ Interviews, 2000).

²³⁹ See Appendix A6.1 and Appendix A6.2 for complete responses from Key Participants on the structured/ written interview questionnaire. The response rate for Implementation Planning & phasing component was 73% for problems impact and 50% for policy directions of the total number of actual questions for this component.

²⁴⁰ The subdivision of the site into defined Special Identity Districts, made it easy to implement individual districts/sites in phases. According to the Planning Report, the first phase of implementation was the restoration of “Trinity Street Heritage District” (City of Toronto, February 1994).

Moderate	▲	• Difficulty of phasing of site remediation as a 1 st phase & site development as 2 nd .	
Weak - Moderate	□-▲	• Difficulty of gradual implementation phasing through sub-area dev. due to legal requirements.	
Weak	□	• Difficulty of gradual implementation phasing through sub-area dev. due to site conditions	
Overall Average		Moderate (▲)	Strong (●)

6.3.7 Key Participants’ Interview Responses on Key Policy Direction – Tax Increment Financing (TIF/TIEF) (Self Financing) – G&W

In this case study, Tax Increment Financing (TIF/TIEF) was not applied. The objective is to evaluate whether future tax increments can potentially finance the cost of site remediation. In an interview, key participants had indicated that there was an impact of redevelopment on property values and tax base due to the new redevelopment and that the Province was looking into the policy of tax increment financing (TIF/TIEF) and the possibility of amending the Municipal Act to allow for implementing this policy.²⁴¹ The City was also considering tax relief for heritage buildings. Even though there is indication that a policy direction of TIF/TIEF has potential viability; however, more sources of information and evidence are required to examine the viability and applicability of this policy direction.

6.3.8 Key Participants’ Interview Responses on the Overall Planning Process – G&W

The private Owner-Developer initiated the project and was responsible for both packages of site remediation and site redevelopment. In addition, there was a secondary developer who was responsible for social housing. The vision for the project was greatly influenced by the existence of a considerable number of heritage buildings and total square footage that was supposed to be conserved. All major stakeholders were involved in developing the final vision for the project including the developer, the City and related approval authorities, in addition to private urban design and heritage consultants commissioned by both the developer and the City. The City of Toronto, in addition to being an approval authority for the project, also played an important role in the planning process in terms of preparation and arrangement for urban design and heritage studies as well as developing the planning concept and vision for the project. An outstanding issue in the project was the balancing of building density with existing building heritage. In spite

²⁴¹ As outlined by the City project planner, the main problem facing this policy direction is the legal framework within the Municipal Act does not allow municipalities to give grants/bonusing in general, except where it is exempted (Key Participants’ Interviews, 2000). Section 28 of the Planning Act, and within designated community improvement areas, allows municipalities to provide grants or loans.

of some conflicts among stakeholders, there was a good level of collaboration between the private Developer and the City approval authority as well as with community residents. This stakeholders' collaboration in the process played an important role in achieving project success.

Impact Evaluation of Problems & Selected Policy Directions - Overall Planning Process²⁴²

The overall average impact level for the selected problems ranked “▲ moderate” (Exhibit 6.11). The highest ranking interactive problems were “*environmental contamination versus project economic feasibility & marketability*” which ranked “●-■ strong-very strong” impact. Also, several problems ranked “▲-● moderate-strong” impact, including the interactive problems of “*environmental contamination versus stakeholders’ conflicting objectives,*” “*difficulty of developing future planning vision due to stakeholders’ multiplicity & varying views,*” and “*difficulty of integrating multiple planning processes.*” The relatively high impact value for the mentioned interactive problems indicates their significance as important linkages among components in the overall planning process.

Exhibit 6.11: Impact Levels of Problems & Policy Directions: Overall Planning Process - G&W			
Level of Impact		Problems and Issues	Policy Directions/Guidelines
Strong - V. Strong	●-■	<ul style="list-style-type: none"> Interactive problems: environ. contamination & liability vs. economic feasibility & marketability. 	
Strong	●		<ul style="list-style-type: none"> Adopting integrative planning framework to link major planning sub-processes including site remediation, physical planning, financial planning & marketing, social planning and stakeholders’ organizational planning
Moderate-Strong	▲-●	<ul style="list-style-type: none"> Interactive problems: environ. contamination & liabilities vs. stakeholders’ conflicting objectives. Difficulty of establishing future site redev. vision due to stakeholders’ multiplicity & varying views. Difficulty of integrating multiple planning sub-processes including: site remediation, physical planning, financial planning & marketing & stakeholders’ organizational planning & partnerships. 	<ul style="list-style-type: none"> Having a clear vision for the project.
Moderate	▲	<ul style="list-style-type: none"> Difficulty of establishing future site redev. vision due to multiple-component problem complexity. 	
Weak-Moderat	□-▲	<ul style="list-style-type: none"> Interactive problems: environ. contamination & liabilities vs. physical-functional declining image. 	<ul style="list-style-type: none"> Commitment to planning especially in dealing with large sites.
Weak	□	<ul style="list-style-type: none"> Interactive problems: environ. contamination & liabilities vs. physical-functional declining image. Interactive problems: environ. contamination & liabilities vs. social equity & security. 	

²⁴² See Appendix A6.1 and Appendix A6.2 for complete responses from Key Participants on the structured/ written interview questionnaire. The response rate for the Overall Planning process was 46% for problems impact and 54% for policy directions of the total number of actual questions for this component.

Overall Average	Moderate (▲)	Moderate-Strong (▲-●)
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The overall average impact of the selected policy directions ranked “▲-● moderate-strong”. The highest ranking policy direction was “*adopting an integrative planning framework ...*” that rated “● strong” and “*having a clear vision for the project*” rated “▲-● moderate-strong” impact. In general, the results indicate that these policy directions are important at least for this case study.

6.4 CASE STUDY FINDINGS AND CONCLUSIONS

The findings for case study analysis are discussed according to the eight research units of analysis outlined in Chapter Five. Essentially, these units include the overall planning process and its five consolidated problem components as represented in their pertinent planning sub-processes (Exhibit 2.5), in addition to project implementation and a key policy direction. Within each component, the focus will be on the nature of the planning sub-process and connectivities/linkages within and among components and sub-processes.

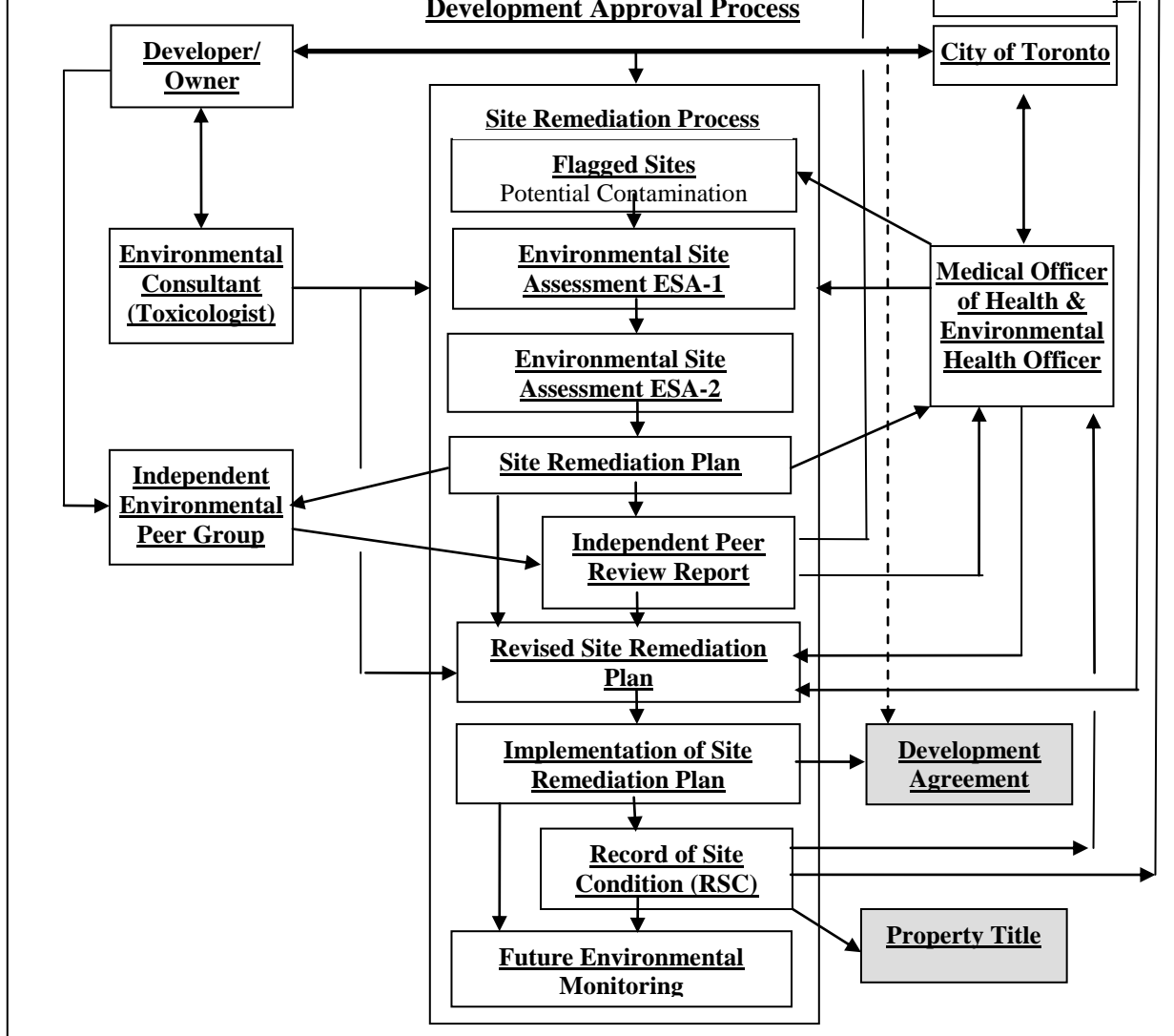
6.4.1 Environmental-Legal Component: Site Remediation Planning Sub-process

Site contamination and required site remediation is taken as the main element within the Environmental-Legal component. However, the planning process included other environmental issues like flood proofing, noise and vibration, air quality, and wind mitigation. The environmental problems were complex in various aspects including the following:

- Multiplicity of environmental problems including soil and ground water coal tar contamination, flood plain, air and sound/vibration quality issues.
- Migratory nature of ground water coal tar contamination coming from surrounding sites, and resulting in undefined legal liability.
- Large size project site that included other planning issues like heritage conservation.
- Extensive time required to complete each phase of site remediation, including government approval process.

As a result of the outlined complexity of environmental problems, the redevelopment planning strategy was incremental on an individual site-by-site basis. Environmental site assessment and site remediation was performed for each individual site/phase and then site redevelopment following site plan approval process. The incremental site remediation process was also guided by a general environmental protocol covering the entire project site. To be cost effective, the site remediation process was based on a site specific risk assessment approach (SSRA). The environmental site remediation process and interrelationship with primary stakeholders is briefly outlined in Exhibit 6.12

Exhibit 6.12: Site Remediation Process and Interrelationship with Primary Stakeholders - G&W



Connectivities/Linkages in the Environmental Site Remediation Process

Some of the main strong linkages of the Environmental-Legal Component are as follow:

- Site Contamination/ Remediation versus Legal Liabilities (EPA, OPA & others)
- Site Contamination/ Remediation versus Clean-up Cost
- Site Contamination/Remediation versus Future Land Use
- Site Contamination within Site versus Environmental Conditions of Surrounding Areas
- Ultimately, Site Contamination/Remediation versus Required Approval Process
- Flooding Plain Level versus Site Planning & Building Design.

Site Contamination/Remediation versus Legal Liabilities:

Existing site contamination resulted in strict legal liabilities that can be applied to responsible parties jointly or severally. Legal liabilities may be real or perceived. Environmental contamination that originated within the project site (mainly soil contamination) is the liability of

previous property owners/users which is transferred to the current owner/developer through the property purchase. However, contamination that resulted from offsite sources (like ground water coal tar contamination) is primarily the liability of surrounding property owners/users that originally caused the contamination. But for site redevelopment approval, the current developer was liable for performing site remediation within the project site.²⁴³

Environmental contamination may also result in current and future liabilities, during and after redevelopment. Site remediation for individual sites was based on a SSRA approach that was developed during the project and in accordance with MOEE/MOE “Guidelines for the Decommissioning and Cleanup of Sites in Ontario, 1989”. In addition, monitoring was required during site remediation as well as for a future period of 70 years to check impact of remaining coal tar contamination on people living on site during this period. After site remediation, the Record of Site Condition (RSC) was registered on property title.²⁴⁴

Site Contamination/Remediation versus Cost of Clean-up and Property Value:

Site contamination resulted in added costs of site remediation as well as the cost of added time required for completing the environmental approval process. The SSRA approach was basically selected as a cost-effective approach. Banks were reluctant to provide financing for site remediation because of risk and uncertainty and the Developer had to manage interim financing for this initial stage.²⁴⁵ In addition, existing site contamination negatively affected values and prices for such properties before site clean-up.

Site Contamination/Remediation versus Future Land Use:

The proposed residential, commercial, and industrial land use areas implied different criteria/levels for required site remediation, based on the environmental guidelines. The cost of site remediation for residential use is relatively higher than for industrial, commercial, and office use because clean-up criteria are more stringent for residential use.²⁴⁶

Within Site Contamination/Remediation versus Surrounding Environmental Conditions:

²⁴³ This is a case of unclearly defined legal liability. As outlined by city project planner, the current property developer filed a law suit against surrounding property owners who originally caused coal tar contamination but the legal case was still pending at the time when this field study was performed (Key Participants’ Interviews, 2000).

²⁴⁴ The RSC was registered on property title because the SSRA remediation approach implied remaining contamination within the site that would require future monitoring. Liability was not transferred to the new owners/users (like residential units), but this issue may affect property prices.

²⁴⁵ Interview with secondary Developer for social housing (Key Participants’ Interviews, 2000).

²⁴⁶ Interview with Environmental Health Officer (Key Participants Interviews, 2000).

Ground water coal tar contamination within the surrounding sites was migratory in nature and consequently had an effect on the environmental conditions within the individual sites of the project. Migratory contaminants made it difficult to define legal liability for contamination and site remediation. In addition, it was not enough to work only on cleaning the coal tar within individual sites because new contaminants will migrate from surrounding sites. Accordingly, a site specific engineering solution was designed in the form of a bathtub barrier to isolate outside ground water contamination from migrating into individual sites after site remediation.

Site Contamination/Remediation versus Required Approval Process:

Site remediation was a milestone in the development approval process as well as in the development agreements between the City and related government bodies, the Developer, and other concerned stakeholders. There was a master development agreement for the entire project. In addition, there was a development agreement for individual sites which were to go through a site plan approval process.²⁴⁷ The City approval on the environmental process (site remediation plan) went simultaneously with the site plan approval process for the individual site. The requirements for the site remediation plan would be part of the development agreement for the pertinent individual site. The Record of Site Condition (RSC) established after implementing the site remediation plan would be registered on property title, which was also part of the final City approval for the project before giving occupancy permit.

Flood Plain & Flood Proofing versus Site Planning & Building Design

The project site was within the flood plain and flood proofing/protection was required. This condition affected both site planning and building design decisions.²⁴⁸

An important conclusion is that the linkages outlined earlier form multiple chain linkages among them like Site Contamination/Remediation – Legal Liabilities – Clean-up Cost and Site Contamination/Remediation - Future Land Use – EPA requirements.

6.4.2 Physical-Functional Component: Physical-Functional Planning Sub-process Site Land Use Planning, Heritage Planning, Urban Design & Architectural Design

The physical-functional planning process was exemplified at several interrelated and hierarchical planning levels including land use planning, project site master planning, urban design

²⁴⁷ Redevelopment implementation was on a site-by-site basis (Key Participants Interviews, 2000).

²⁴⁸ The effects included the following: 1. Ramps to underground parking must have berm like protection at the building edge, 2. The pedestrian egress from new buildings on the site must lead to dry areas above the flood level, 3. Building ground floor levels will have to be above the flood elevation (highest level flood in the past 300 years), 4. The existing floor levels of the heritage buildings tend to be raised in any event, 5. The site would have some amount of landfill especially in the areas of the new buildings at the southeast corner of the site.

guidelines, and an area site plan including building architectural design. Heritage conservation planning and design was a major element, which required extensive heritage studies. The studies were conducted by both the public approval authority and by the private developer’s team. The contextual applications of each level of the planning and design sub-processes, in addition to the government regulatory plans that form the legal basis for approving each planning level are outlined in Exhibit 6.13.

Exhibit 6.13: Planning & Design Process at Different Physical Levels and Their Contextual Application			
	Physical Levels of the Planning Process	Private Sector Plans & Studies (Contextual Application)	Government Plans & Regulatory Legal Basis
1.	Land Use Planning	<ul style="list-style-type: none"> • Official Plan Amendment • Rezoning 	<ul style="list-style-type: none"> • Official Plan (City Official Plan). • District Plan: Parliament-King Part II • Zoning By-laws • Planning Act • Heritage Act
2.	Overall Project Site Planning and Urban Design	<ul style="list-style-type: none"> • Master Development Concept Plan. • Heritage Master Plan • Site Plan with Special Identity Districts. • Urban Design Guidelines & Principles. • Landscape Concept Plan • Street planning and design • Supporting Studies (Private Sector): <ul style="list-style-type: none"> - Heritage Studies. - Built Form Analysis. - Transportation Studies - Sun & Shade Studies. 	<ul style="list-style-type: none"> • Planning Act. • Heritage Act. • Site Plan Approval Process. • Supporting Studies (Pub. Sector): <ul style="list-style-type: none"> - Heritage Assessment Studies. - Report of the Gooderham & Worts Conservation Working Group. - Planning/Design Review Reports.
3.	Architectural Building Design	<ul style="list-style-type: none"> • New Residential Building design. • New Office Building Design • Adaptive Reuse of Historical Bldg 	<ul style="list-style-type: none"> • Site Plan Approval Process. • Building Code. • Flood Proofing Criteria.

Essentially, all those planning levels emphasized the physical-functional plan as the primary objective and product. Also, these planning levels addressed some of the objectives of or linkages to other components like affordable housing and heritage conservation (social component), flood protection and site remediation (environmental component), as well as building density that was also linked to financial feasibility (economic component).²⁴⁹

The planning process was performed by both the private developer and his team on one side and by the public approval authority on the other side. In addition, community residents and groups were also involved through public consultation meetings. The City was contributing to the actual planning process in addition to regulating and giving redevelopment approval. The King Parliament Part II (District) Official Plan, which included the project site, was being revised

²⁴⁹ In general, the redevelopment approval process (except environmental approval) was primarily based on physical-functional criteria like the City Official Plan and zoning by-laws which address land use and other physical-functional issues.

during the redevelopment approval process. In addition, the City commissioned private consultants to prepare planning and urban design studies including an evaluation of existing heritage in order to establish criteria for the new redevelopment. That was in addition to planning, urban design and heritage studies performed by the Developer's team. The Developer had to apply for an Official Plan amendment and rezoning due to changes in land use and development density. In essence, the project Master Development Concept Plan and the City's Official Plan and District Plan evolved simultaneously and interactively.

Connectivities/Linkages of the Physical-Functional Planning Process

The connectivities between elements of the physical-functional component and the environmental component were discussed in the previous section.²⁵⁰ The main linkages between the physical-functional component and other components are as follow:

- Heritage Conservation Planning versus Urban Renewal and Redevelopment
- Building Form & Density versus Environmental Adaptation
- Land Use Diversity versus Site Activity at all Times of the Day
- Public Accessibility versus Site Activity including Art and Cultural Functions
- Public Open Space versus Heritage Buildings & Public Access
- Special Identity Districts versus Project Phasing

Heritage Conservation Planning versus Urban Renewal and Redevelopment

Sound heritage conservation of the site and its buildings was a primary objective that was achieved through an adaptive reuse of historic buildings, as well as maintaining the historic site geometry and fabric. In addition, site redevelopment included new residential and office buildings, which necessitated removal of some of the old buildings, but still keeping portions of the historic building façade for architectural heritage resemblance. Integrating the old and new settings was a key theme in the project site master plan, urban design, as well as in the adaptive reuse of historical buildings and design of new buildings. One of the main issues was building form and density and how to accommodate economically feasible development density and still achieve heritage conservation that was acceptable to main stakeholders and concerned parties.²⁵¹

²⁵⁰ The connectivities between the physical-functional component and the environmental component included:

- Site Contamination/Remediation versus Future Land Use
- Site Contamination/Remediation versus Required Approval Process
- Flooding Plain Level versus Site Planning & Building Design

²⁵¹ Heritage conservation plan was achieved by the City through a heritage easement agreement. The City allowed the Developer to add building area as a bonus in exchange of heritage conservation (based on Section 37 of the Ontario Heritage Act).

The proposed design included lower buildings near the center of the site, where heritage buildings were mostly concentrated, and higher buildings and density on the periphery.

Building Form & Density versus Environmental Adaptation

In addition to the interactive effect with heritage factors, building form studies were also conducted in relation to climatic factors including wind mitigation at grade level and sun shade conditions. The objective was to foster environmental adaptation.

Land Use Diversity versus all Day Site Activity

Site rezoning was recommended by the City to allow for mixed land use functions in order to create a place to live, work, shop, and entertainment. Land use mix included residential, retail, office, light industrial, and art and cultural functions. The objective of this land use mix was to allow for an all day activity on the project site.²⁵²

Public Accessibility versus Site Activity including Art & Cultural Functions

Public accessibility to the site by transit was one of the main objectives for the project.²⁵³ This was important for increased accessibility for people residing and working within the project site as well as for the general public using site functions. The art and cultural community had interest in creating a performance centre on site. The idea of utilizing existing heritage buildings for art and cultural activities achieved both heritage conservation and attracting public into the site.

Public Open Space versus Heritage Buildings & Public Access

Public open space within the project site was essentially defined by the existing fabric of heritage buildings, pathways and open courtyard spaces, which was a linear form system. Essentially, the G&W site was considered as a pedestrian precinct with vehicular traffic only allowed on the boundaries except for Mill Street. The open space plan was to enhance the sense of accessibility and the linkages between the open space and building vistas on the site and the emerging larger neighbourhood. Also, the open space plan was to enrich heritage character of buildings and site by using historical resemblances as part of the open space elements.

Special Identity Districts versus Project Phasing:

The project was subdivided into five Special Identity Districts and the Trinity Heritage District was to be implemented first. The subdivision of the project into smaller areas/districts made it easy to phase implementation of the project.

6.4.3 Economic Component: Financial Planning and Marketing Sub-processes - G&W

²⁵² Residential and office functions comprised 40% each of the overall project (City of Toronto, 1994).

²⁵³ The long term planning objective was for a modal split that favours transit (City of Toronto, 1994).

The project was privately owned and redevelopment financial planning and marketing was primarily carried out by the private Developer for the overall project as well as by the private Secondary Developer for social housing.²⁵⁴ Financing for site redevelopment was primarily through private financial institutions except for site remediation for the initial phases for social housing projects. These initial phases were done through interim financing because the banks were initially reluctant to provide financing for site remediation due to perceived high risk.²⁵⁵ The risk was primarily carried by the Developer. No environmental insurance was obtained for at least the site remediation cost.

Project marketing was performed by the primary Developer for the project as well as by the secondary Developer for social housing. Regardless of site contamination, there were many favourable conditions for project marketability including heritage character of the site, provision of affordable housing, as well site location near Toronto city centre and accessibility to major transportation routes.²⁵⁶

The financial feasibility framework was bound by complex factors which mainly include cost of heritage conservation, cost of site remediation, provision of 25% affordable housing, as well as the nature of allowed mixed use functions and level of new development density. There was an extensive negotiation between the Developer and the City of Toronto in establishing a balanced feasible package that is acceptable to both parties as well as to other related stakeholders.²⁵⁷ The City allowed for added building density and height in exchange for providing public benefits such as provision of public uses and heritage conservation.

Connectivities/Linkages in the Economic Planning Process

The linkages between the economic planning component versus the physical and environmental planning components were previously outlined.²⁵⁸ The main linkages between economic planning component and other planning components and sub-processes include the following:

²⁵⁴ The Developer for social housing purchased the sites for residential buildings from the Owner. Two of the sites were considered as clean sites and the third one required site remediation (Key Participants' Interviews, 2000).

²⁵⁵ Public funding was scarce at the start of the project due to the recession of the 1990s. As mentioned by the secondary Developer, interim financing was obtained from the Pension Fund (new owner) that purchased the G&W property (Key Participants' Interviews, 2000).

²⁵⁶ Statement by the City project planner (Key Participants' Interviews, 2000).

²⁵⁷ As outlined by the City project planner the extent of added building density, height and location within the project site were thoroughly negotiated with the Developer (Key Participants' Interviews, 2000).

²⁵⁸ The linkages between the economic component and the environmental & physical components included:

- Cost of Site Remediation versus Level of Site Contamination
- Cost of Site Remediation versus Legal Liabilities
- Cost of Site Remediation versus Future Land Use

- Project Economic Feasibility versus Heritage Conservation & Building Density
- Cost of Site Remediation versus Stakeholders Decisions & Project Feasibility
- Project Marketability versus Perception of Site Contamination & Remediation

Project Economic Feasibility versus Heritage Conservation & Building Density

Heritage building conservation is a relatively costly process as compared to the economic return from the use of the buildings, especially when they are also limited in area size. From this point of view, heritage building conservation alone was not economically feasible and accordingly not palatable to the private Developer. However, heritage conservation was acknowledged as a public benefit/good. In order to make the package economically feasible and acceptable to the Developer, and based on the provisions of the Ontario Heritage Act, the City had to provide an extra building area as a bonus to be added to the originally allowable building area for redevelopment in exchange for performing the required heritage conservation plan.²⁵⁹

Cost of Site Remediation versus Stakeholders Decisions & Project Feasibility

Cost of site remediation had an effect on project feasibility and hence on decisions of stakeholders. This issue was also interlinked with proposed future land use and stakeholders perception of contaminated areas. A good example was the residential sites that implied more stringent site remediation criteria and were consequently more costly. The conditions for residential site redevelopment were not attractive to many developers.²⁶⁰

Project Marketability versus Perception of Site Contamination & Remediation

Perception of site contamination had negatively affected project marketing. The record of site condition after site remediation was also registered on title. However, there was a huge demand for affordable housing due to inner city location, being near to an established neighbourhood of Saint Lawrence and the re-urbanization process within the inner city.

6.4.4 Social-Psychological Component: Social Planning Sub-process - Equity Planning

The redevelopment planning process was primarily driven by the private Developer-Owner and the City. Even though the process was not community based, there were public meetings where

²⁵⁹ In general, provincial regulation does not allow municipalities to give bonuses to developers. However, Section 37 of Ontario Heritage Act allows giving bonuses for the purpose of securing heritage easement agreement. Also, Section 37 of the Planning Act allows for authorizing increases in the height and density of development for the purpose of securing certain public benefits such as the provision of public uses as well as heritage conservation.

²⁶⁰ The secondary Developer for social/affordable housing mentioned that at two residential sites there was an increase in cost of about 5-8% due to site remediation and 10% for heritage facade conservation. While at the third residential site, the rate of cost increase was reversed to 10% for site remediation and 5-8% for heritage conservation. It was a challenge for them to make the project work, especially when other developers did not want to take the risk (Key Participants' Interviews, 2000).

local residents had participated in stating their needs and community objectives. Also, local residents and certain community groups had the chance to object to several issues of the proposed plan like the impact of high building density and height on existing heritage buildings. Even though, there was no defined social planning process, the redevelopment included several social and socio-economic objectives like heritage conservation and affordable housing that were required by the City as part of the project development approval.

In general, there were no social inequity issues or concerns raised by local residents or other parties throughout the process.²⁶¹ However, there were social safety issues before implementing the project and after completing initial phases of residential buildings because the site area was not fully occupied. The social safety issue was resolved when the project site functions started to be occupied.²⁶²

In conclusion, the redevelopment process resulted in achieving social objectives and added value to all stakeholders including local residents. The achievement of social objectives like heritage conservation and affordable housing were favourable conditions for project marketing. This is evidence that the social planning sub-process that properly addresses social issues and objectives as perceived by local residents can foster project success.

Connectivities/Linkages in the Social Planning Process

Some of the linkages have been addressed in previous sections. The other main linkages include:

- City and Heritage Community Objectives versus Perception of Heritage Conservation
- City & Community Objectives versus Perception of a Contaminated Site

City and Heritage Community Objectives versus Heritage Conservation

There were positive and negative linkages among City and heritage community objectives vis-à-vis heritage conservation. The positive link was that objectives of both were in heritage conservation of site and buildings. However, there were differences in the level of conservation versus development density and height that would be added into the site. The negative link was

²⁶¹ As stated by a local resident, there was general consensus among residents that the project was achieving positive social objectives in terms of social housing and heritage conservation and above all transforming a derelict contaminated area into a vibrant mixed-use development. In general, residents perceived the project as providing an acceptable trade-off between achieving social and environmental objectives vis-à-vis new development density (Key Participants' Interviews, 2000).

²⁶² Interview with local community resident pointing out that before redevelopment the area was perceived as derelict compared to inland areas and there were issues of drug dealers and sex trade drivers. When the first residential building on Mill Street was completed it was also isolated and there were security concerns among residents while walking through vacant street area especially for women. However, inside the residential building security was controlled. The site security issues were resolved when the area functions were occupied (Key Participants' Interviews, 2000).

conflicting perception of impact of new development on heritage buildings. The heritage community wanted to see more heritage preservation and lesser change in the existing physical environment. However, and in order to have a financially feasible package for the private developer and to cover the added cost of heritage conservation, more building density was given to the developer as a bonus. Eventually, it was an acceptable trade-off to all parties.

City & Community Objectives versus Perception of a Contaminated Site

There were positive and negative links between the City and community objectives vis-à-vis perception of a contaminated site. The positive link was that the objectives of both were in transforming the unutilized contaminated site into a relatively healthier mixed use complex. However, environmental clean-up was a costly process for the developer which necessitated a cost effective approach (SSRA) including a risk management plan that resulted in keeping some of the contamination within the site with future monitoring. The perception of future environmental and health risks was one of the conflicting issues during the development approval process as well as in marketing, since the record of environmental site condition would be registered on property title.²⁶³

6.4.5 Political-Organizational Component: Political Planning Sub-process - Stakeholders' Organizational Planning, Collaborative Planning, and Partnership - G&W

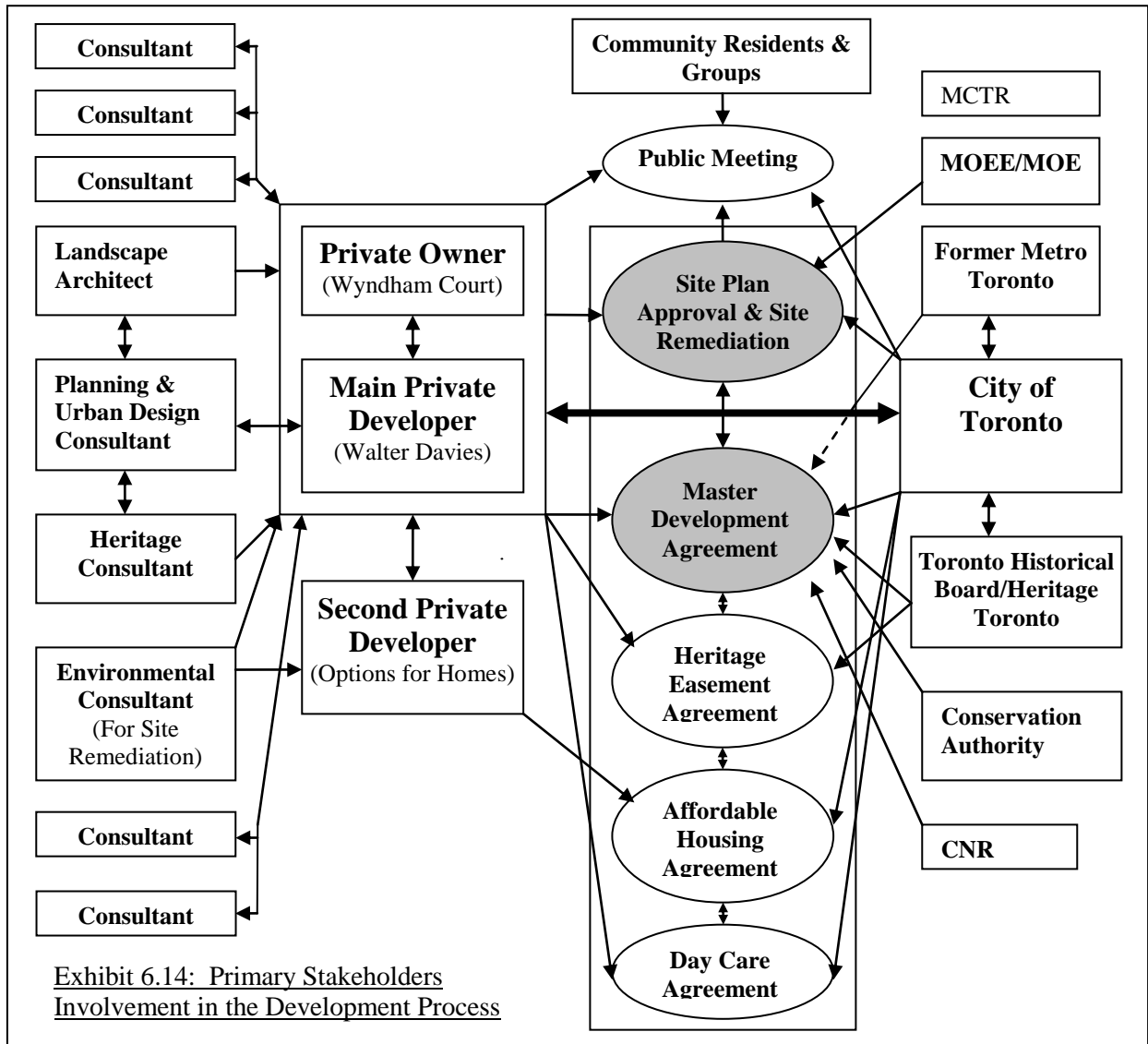
The planning process in the political component was basically how the main Stakeholders were involved in both the development public approval process and the overall project site redevelopment process. In general, the stakeholders can be classified into three main categories/sectors including the project developer (private sector in this case) and his team, the public sector approval authority and related government agencies, and local community residents and groups. The development approval process for the project was the main organizational factor among the three main categories of stakeholders (Exhibit 6.14).

The public sector approval authority and related public agencies represented one major pole in the planning process.²⁶⁴ The public sector approval authority was primarily responsible for project development approval. However, the City was also performing the needed update of regulatory planning as well as covering important project planning issues like heritage and built

²⁶³ This was also conveyed by the secondary Developer for social housing (Key Participants' Interviews, 2000).

²⁶⁴ The primary stakeholders in the public sector approval authority and related agencies included: • City of Toronto, • Toronto Historical Board/Heritage Toronto, for review/approval on heritage plan, • Former Metro Toronto, for part of the development approval process, • Ministry of the Environment (MOE), • Regional Conservation Authority, for review/approval of flood proofing issues, • Ministry of Culture, Tourism and Recreation (MCTR), • Ontario Municipal Board (OMB), • Canadian National Rail (CNR)

form related studies. This added role by the City helped in narrowing the planning vision gap between the City and the Developer.



Since the project was privately owned, then the private Developer played a key role in the selection and organizational set-up of their team of needed professional consultants, as well as playing a key role in the primary decision making in the development process.²⁶⁵ In addition, there was a secondary Developer who was responsible for social housing.

The local community residents and groups were primarily involved in public meetings arranged by the City to review the project as well as meetings and presentations arranged by the

²⁶⁵ The main Developer’s team included various professional consultants, which primarily included: • Planning, Urban Design and Architectural Consultants • Landscape Architect, • Heritage Consultant, • Environmental Consultant for site remediation planning, • Environmental Peer Review Consultant to review site remediation plan, • Other Consultants.

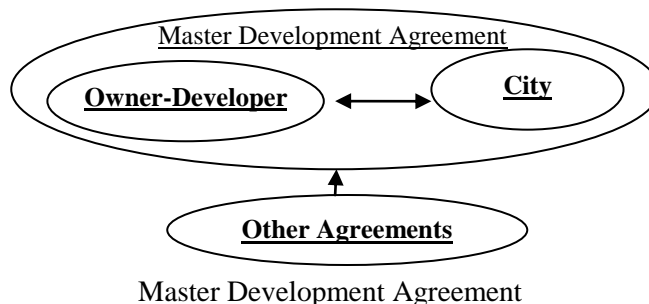
private Developer. Even though community residents' involvement was limited to public meetings, they had the power to express their views within the parameters of the law.

Collaboration and partnership among stakeholders took various forms. Public-Public collaboration and partnership included federal, provincial and local levels that collaborated to prepare a working paper and objective criteria for heritage conservation and related planning and design issues. City-Community meetings were held to explain the project and obtain resident's views. Also, Developer-Community meetings and project presentations were held to get local community support for the project. However, no public-private-community collective collaboration was performed in this project.²⁶⁶ There was general agreement among local community residents regarding the proposed project with minor concerns about location of building density and height that was resolved by relocation.²⁶⁷ A major form of collaboration and partnership was City-Developer which was represented in performing project planning studies separately and helped in developing a common vision for the project plan. Also, there was extensive negotiation and trade-offs made by both parties in order to reach the final project development agreement which was a form of public-private partnership.

Connectivities/Linkages in the Political/Organizational Component & Planning

In this component, linkages can be in the form of common objectives, collaboration and partnership, in addition to agreements among main stakeholders. The different forms of collaboration and partnerships outlined in the previous section represent levels of linkages in the process. However, the main linkage was the Master Development Agreement between the City approval authority and the private Developer.

The Master Development Agreement:



The Master Development Agreement included other agreements like Heritage Easement Agreement, Affordable Housing Agreement, Day Care Agreement, and others. The Master

²⁶⁶ Interview with City project planner (Key Participants' Interviews, 2000).

²⁶⁷ Interview with local resident (Key Participants' Interviews, 2000).

Development Agreement was to guide incremental site redevelopment through site plan control areas and approval process for each individual building/site within the project.

The common objectives and agreement among main stakeholders were key links in the process. In general, the objective of developing the site was not only driven by the private sector, but also wanted by the public sector and local community residents. The difference in stakeholders' views was more in the details of added building density/height and its location, and not in the idea of transforming the unused site area into a vibrant mixed-use community.

6.4.6 Implementation Planning and Phasing - G&W

The phasing plan for project implementation followed the overall development planning and approval process. The planning process generated a Master Development Concept Plan, which included a definition of “*Special Identity Districts*” with specific building sites.²⁶⁸ Defined building sites would go through site plan approval process and implementation including site remediation and redevelopment. In essence, project implementation was incremental on a site by site basis. Phasing of implementation can be classified into the following two main types:

1. Phasing of implementation according to the prioritized definition of “*Special Identity Districts*” and specific building sites.²⁶⁹ Any emerging changes in the site plan approval process might require changes in the Master Development Concept Plan. This meant that the planning process was incrementally adaptive and the overall plan was considered as a guideline for redevelopment and flexible to adaptation as new needed changes occur.
2. Phasing of implementation in terms of site remediation planning to be implemented first, and site redevelopment to be implemented second. Site remediation planning was based on SSRA approach and risk management. The site remediation and site redevelopment phases were linked because the construction of the basement garage was part of the remediation approach.²⁷⁰

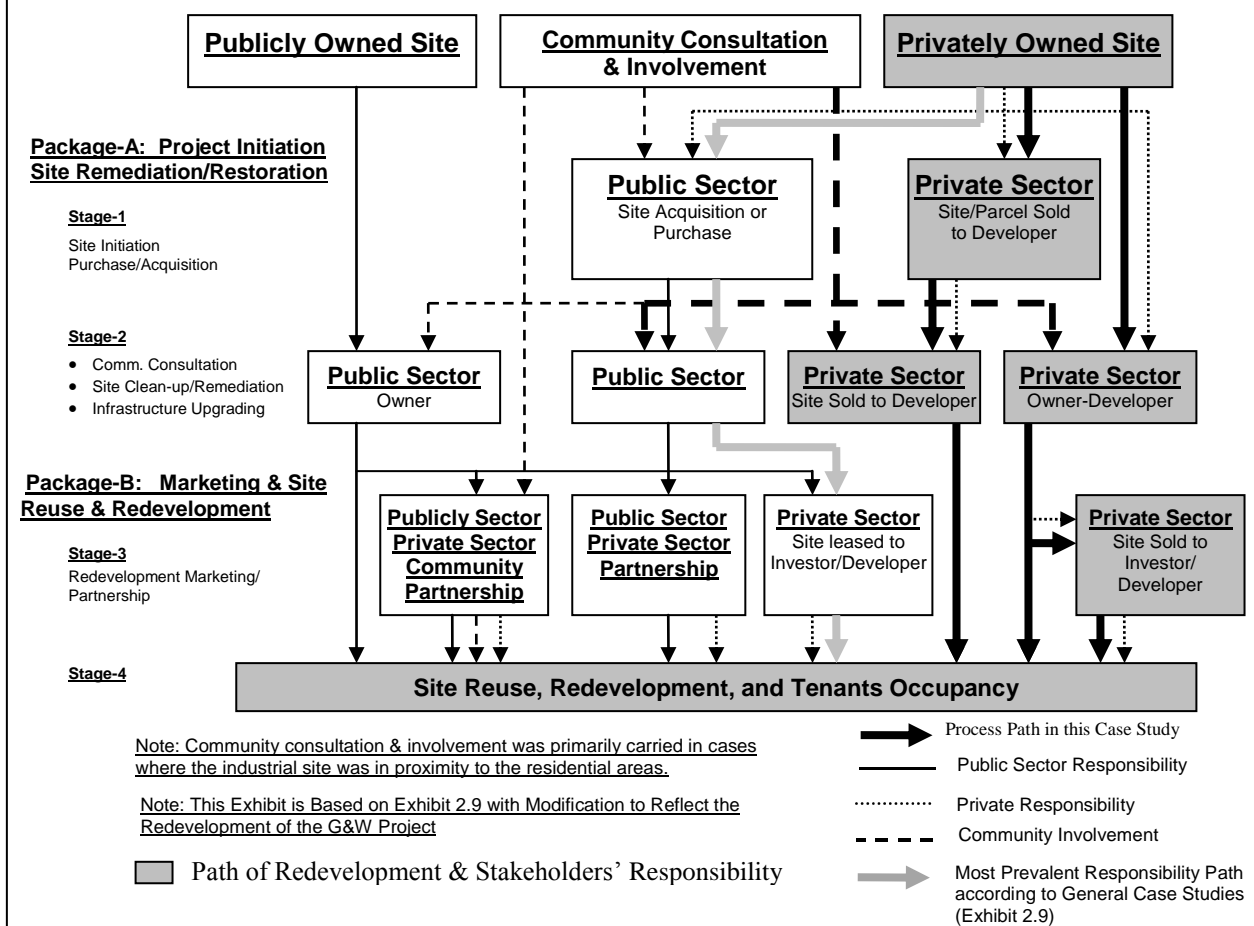
The project site was owned by a private Owner-Developer who was responsible for the overall site redevelopment. The residential building sites were sold to another private developer who actually performed site redevelopment. Exhibit 6.15 outlines the implementation phasing packages and the pertinent redevelopment path of primary stakeholders' responsibility for each implementation package.

²⁶⁸ This also included Urban Design Guidelines, a Heritage Master Plan, and Landscape Concept Plan.

²⁶⁹ See Section 6.2.2, Item 3 Land Use Diversity for an outline of the five “*Special Identity Districts*”. “*Trinity Street Heritage District*” was the first phase of implementation (City of Toronto, 1994).

²⁷⁰ Interview with secondary Developer for social housing (Key Participants' Interviews, 2000).

Exhibit 6.15: Blighted/Contaminated Site Reuse and Redevelopment Process – Implementation Packages/Phases Outlining the Distribution of Stakeholders’ Responsibility - G&W



6.4.7 Key Policy Directions -Tax Increment Financing (TIF/TIEF)²⁷¹ - G&W

In this case study, Tax Increment Financing (TIF/TIEF) was not applied. The attempt in this section is to compare real estate tax increments on the property (and on surrounding), after actual site redevelopment with economic cost of environmental site remediation. The objective is to evaluate whether future tax increments can potentially finance the cost of site remediation.

In response to the interview questionnaire, key participants had indicated that new redevelopment would have significant impact on property values and tax base and the Province was looking into the policy of tax increment financing (TIF/TIEF) and the possibility of

²⁷¹ Tax Increment Financing (TIF) program is applied in the United States. Tax Increment Equivalent Financing/Grants (TIEF) is the Canadian version of a similar program that was adopted by certain cities/municipalities. The (TIF) program is run and implemented by the city/municipality. The (TIEF) program is run by the city/municipality in the form of grants or subsidized loans given to the developer who will later control the use of funds (MMAH, 2000a).

amending the Municipal Act to allow for implementation.²⁷² In conclusion, the policy direction TIF/TIEF may have potential viability within the Canadian/Ontario context. However, more sources of information and evidence are required to examine in more detail the viability and applicability of this policy direction.

6.4.8 Overall Multiple-Component Planning Process - G&W

Essentially, there are two main poles for the overall planning process including the project Developer and public approval authority. The private Owner-Developer initiated the project and accordingly played an important role in the planning process for site redevelopment.

Characteristics of the Overall Planning Process

The overall planning process can be characterized as follows:

- Multiple-Component Planning Process Including Sub-processes within Components
- Planning Sub-processes are Interactive within and among Components
- Planning Process at Multiple Levels
- Incrementally Adaptive Planning Process
- Multiple Stakeholders Planning Process - Developer versus Public Approval Authority
- Heritage Conservation in the Context of Urban Revitalization and Transformation

1. Multiple-Component Planning Process Including Interrelated Planning Sub-Processes:

The overall planning process included planning sub-processes within the various components and each set of component sub-processes has a primary focus on their pertinent objectives. However, main linkages to other components are also addresses within each planning sub-process. The component planning sub-processes are as follows:

- Physical-Functional Planning Sub-processes: These included a wide range of land use planning both at site level and relationships to surrounding areas, heritage conservation planning, urban design guidelines, site planning, architectural design and open space landscape design.²⁷³ The primary focus of these planning sub-processes was the physical-functional objectives. However, linkages to other components are also addressed like achieving affordable housing and heritage conservation (social), site remediation and flood protection (environmental), and financial feasibility (economic). The project development approval process is the link to the political-organizational component.

- Environmental Planning Sub-processes: These included environmental site remediation planning, flood protection planning as well as environmental/climatic planning addressing

²⁷² As outlined City project planner, the main problem facing this policy direction was the Municipal Act that does not allow municipalities to give grants/bonusing in general, except where it is exempted. Section 28 of the Planning Act, and within designated community improvement areas, allows municipalities to provide grants or loans.

²⁷³ Also the planning process included review and amendment of the City Official Plan for King-Parliament Part II and amendment of the zoning by-laws which was performed by the City. In addition, the planning process included studies for Transportation Assessment and Demand Management.

sunshade, wind mitigation, noise and vibration, and air quality impact studies resulting from vehicles and trains. Environmental objectives are the focus of these planning sub-processes.

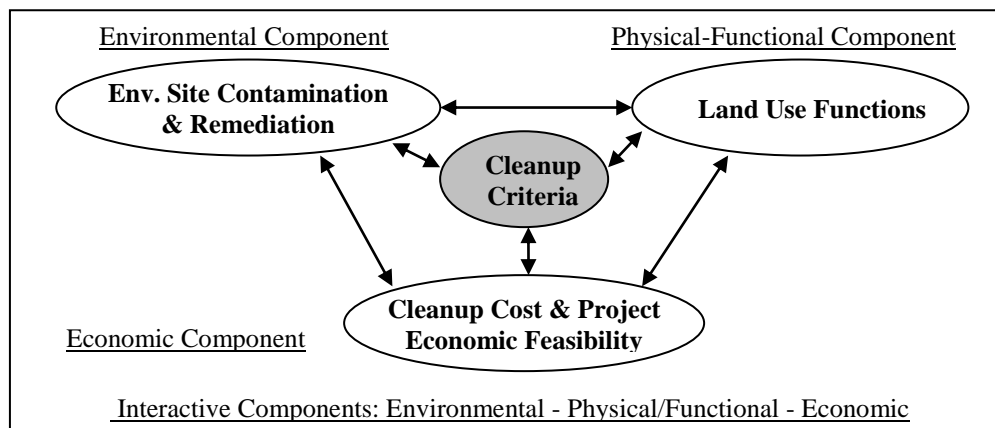
- Economic Planning Sub-processes: These included financial planning performed by the primary project Developer and secondary Developer for social housing, as well as project marketing that was primarily performed by the project Developers.

- Social-Psychological Planning Sub-processes: Even though social planning was not a clearly defined sub-process, there were clearly defined social objectives to be fulfilled as part of development approval requirements. These included heritage conservation planning, affordable housing, and provision of other social functions and services.

- Political-Organizational Planning Sub-processes: These were exemplified in the primary stakeholders’ organization within the development approval process for the project which also included the development agreements made between the City approval authority and the private Developers. This sub-process was also represented in the community meetings and open houses organized for the project.

2. Planning Sub-processes are Interactive within and among Components:

Each component planning sub-process(es) had a level of impact on the other planning sub-processes. The impact can be positive or negative. For example, site remediation was based on a Site Specific Risk Assessment approach (SSRA) to be cost effective, which also had an impact on project financial feasibility.²⁷⁴ Clean-up criteria varied according to the specific land use function within a particular site, and consequently clean-up cost would be affected as well.²⁷⁵



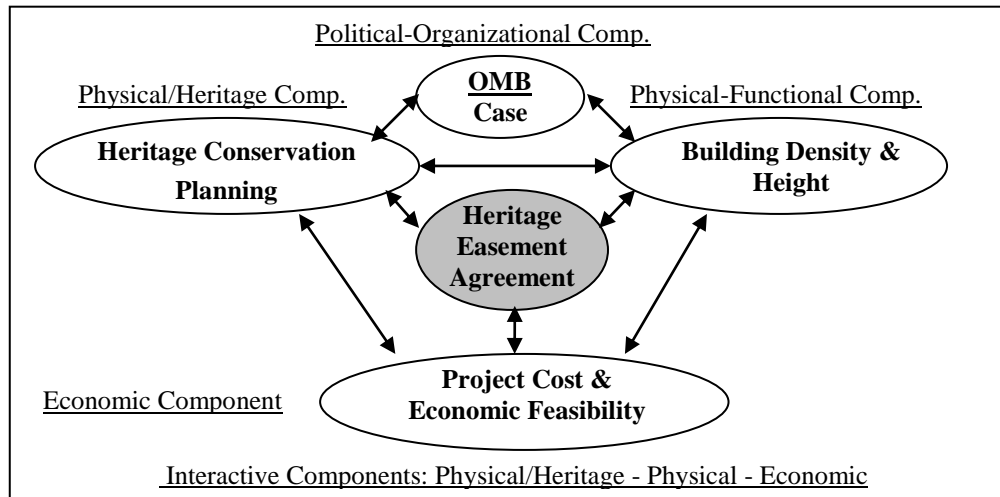
Heritage conservation increased project cost and hence affected project feasibility.²⁷⁶ To achieve heritage conservation, the City made a Heritage Easement Agreement with the Developer in which the building density/height would be increased at certain locations of the site

²⁷⁴ As perceived by Key Participants in the process, the impact of interactive effect between environmental contamination and liabilities with project financial feasibility ranked “Strong-very Strong”(see Exhibit 6.7, Item 8.1) (Key Participants’ Interviews, 2000).

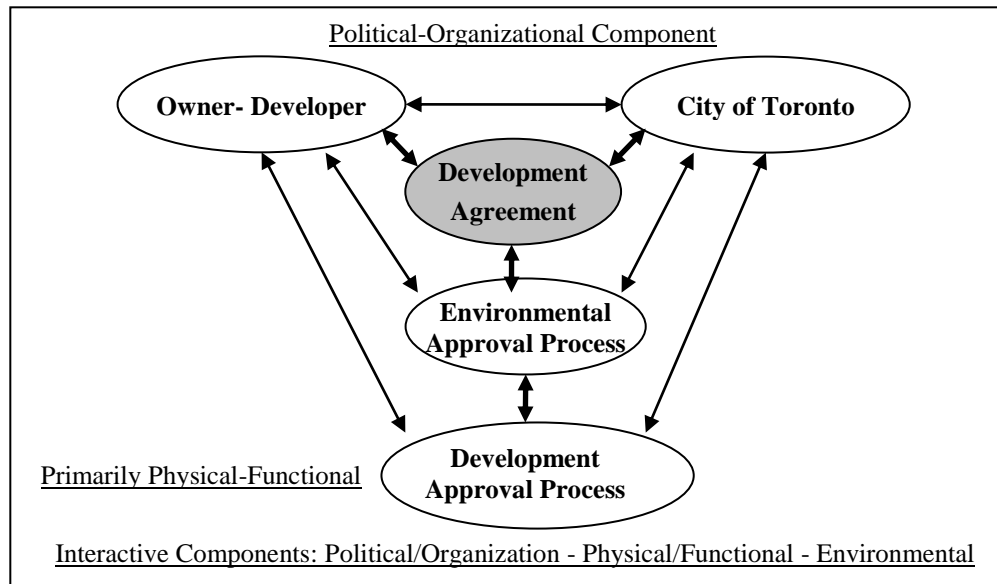
²⁷⁵ Environmental clean-up criteria for residential use are more stringent than those for industrial and commercial uses. Accordingly, clean-up cost for residential use is higher.

²⁷⁶ As perceived by Key Participants in the process, the impact of cost of heritage conservation ranked “Strong-very Strong” (Exhibit 6.7, Item 3.3) (Key Participants’ Interviews, 2000).

in order to balance the added cost of heritage conservation. Also, levels of heritage conservation were employed in the project in order to achieve a more feasible project. Some heritage groups had concerns about the added building density/height and its potential impact on heritage buildings and brought the case to the OMB for stakeholders' conflict resolution.



The environmental approval process was intertwined with the project site redevelopment approval process. The City arranged a development agreement with the Developer to secure the implementation of all requirements including the approved site remediation plan.



Given the interactive nature of linkages among planning sub-processes within and among components, proper integration among planning sub-processes would be essential to address those linkages.

3. Planning at Multiple Spatial Levels: The planning and design process was represented at various interrelated spatial levels including the following:

- Overall Project Site (Macro-Level): This included the Master Development Concept Plan, Heritage Master Plan, Landscape Concept Plan, and the Urban Design built form. Also, this planning level addressed connectivities between the G&W site and its surrounding context.
- Special Identity Districts (Intermediate Level): Heritage and Urban Design requirements were different for each district.
- Building Site (Micro-Level): The site plan control areas and approval process were also carried at this level. Also, phasing of incremental implementation of actual site remediation and redevelopment was carried at this level. However, the comprehensive vision for the overall project was also considered.

All the above planning and design levels were interrelated and thus required integration as part of the overall planning process.

4. Incremental and Adaptive Redevelopment Planning Process: Site redevelopment was incremental on the basis of phased implementation of prioritized “*Special Identity Districts*” and following individual building/site plan control approval process. However, the redevelopment process was also based on an overall Master Development Concept Plan including the Heritage Master Plan. This concept plan would be liable to revisions and adaptations if there were changes at the micro-level building/site planning-design process.

5. Multiple Stakeholders Planning Process: The overall planning process included multiple stakeholders that may be categorized in three main groups including the private project Developer and his team, public approval authorities, in addition to community residents and interest groups. The private Developer initiated the project and played an important role in the planning decision making process. The City, in addition to being responsible for the development approval process, played an important role in preparing and arranging planning studies as well as updating the Official Plan and zoning by-laws as they relate to the project. Community residents and groups were involved in public meetings and project presentations.

6. Urban Transformation & Revitalization Planning in the Context of Heritage Conservation: As a National Historic Site with unique heritage buildings and features, the G&W Site dictated the context of heritage conservation. Also, inner city location and in proximity to the waterfront, instigated redevelopment dynamics toward increased building density and height, as well as currently marketable mixed-use functions. This urban transformation would inevitably impact the context of heritage conservation planning. The key objective would be how to integrate

major urban transformation with heritage conservation. The complex planning condition required a balanced trade-off among primary stakeholders' objectives and interests.



Exhibit 6.16: Photos of the Gooderham & Worts Project (August 10, 2009)

6.5 Further Development Status of the Gooderham & Worts Project - Toronto

In general, the project was considered successful and was implemented in most of its parts. Some of the notes on its development status are as follows:

- The original owner, Allied Domecq, sold the property to the Toronto developer Cityscape in late 2001 (Toronto Star, December, 31, 2001).
- In 2002, Cityscape signed a 20 year lease with Artscape for 72,000SF to be developed as studio space for artists (Toronto Star, March 2002).
- The Distillery Historic District started to stage public art events like antique shows (Toronto Star, July 25, 2002).
- Most of the 44 historic structures on the site were turned to commercial space. About 60% of the space has been leased to tenants selected by the Developer. A plan to erect four more condominiums, in addition to the already built three condominium buildings on site, was in the works (Toronto Star, October 26, 2002).

- The \$20 million restoration project was fully rented after 15 months of purchase by the Developer Cityscape (National Post, May 24, 2003).
- City planners have given the go ahead to rezone part of the historic 44 buildings to permit construction of 30 storey condo point tower (Globe & Mail, June 13, 2003).
- Eight years since Cityscape purchased the project, the development included 325,000 feet of commercial space, a quartet of completed condominiums with another two underway, in addition to restaurants, cafes, theatre and dance companies, boutiques and specialty stores that drew in tourists and locals alike (Globe & Mail, June 26, 2009).

6.6 Lessons Learned - Gooderham & Worts Project - Toronto

Several lessons can be learned from this case study and they are as follows:

1. Site Specific Risk Assessment (SSRA) Approach for Site Remediation Plan:

Adopting a site specific risk assessment approach that is acceptable to MOE was key to project viability and financial feasibility in terms of relatively more cost effective site remediation plan. However, this approach implies future monitoring of potential risk of left in contamination.

2. Added Value of Heritage Buildings and Site:

The significant architectural and industrial heritage character of the site and buildings led to the designation of the G&W as a National Historic site. This added value to the project was key to stakeholders' support for heritage conservation. Heritage conservation planning was an important layer within the overall planning process performed by both the project developer as well as the City. The City provided the developer with a bonus in terms of building density in order to balance added cost of heritage conservation. This created a win-win-win situation for the Developer, public sector, as well as community residents and groups.

3. Concurrent Planning by both the Project Developer & the City Approval Authority:

The City of Toronto was preparing the King-Parliament District Plan at the time the G&W project was being prepared by the project Developer. The District Plan was approved by the City of Toronto and incorporated in the City Official Plan. The new planning objectives for the City Plan were new requirements that influenced the Developer's planning process for the G&W project. In addition, the City was performing their own heritage and urban design studies alongside similar studies performed by the project Developer's team. The concurrent planning by the City and the project Developer created an interactive planning setting that was positive in achieving consensual planning vision for the site. In addition, this dual planning process was fostering the Official Plan amendment and rezoning for a mixed use redevelopment project on a previously industrial zoned site. This also expedited the approval process.

4. Master Development Agreement is the Result of the Approval Process:

The outcome of the approval process was a master development agreement between the City and project Developer, which included several agreements and plans that cover all city requirements and provisions.²⁷⁷ The development agreement can be considered as another form of public-private partnership in implementing the project.

5. Master Development Concept Plan with Incremental Sub-division Site Plan Approval:

The project included a master development concept plan to guide development, while the approval process was based on a sub-division site plan approval. This created a favourable condition for staggering costs of redevelopment, as well as for allowing an incremental phasing of implementation strategy. Site remediation planning was also based on the site plan approval process. However, there was a general site remediation protocol for the overall project site. This condition also allowed adaptive revisions in the macro-level master plan as they were found necessary at the micro-level incremental site remediation and site redevelopment.

²⁷⁷ The main agreements and plans included official plan amendment, rezoning, master development plan, site remediation plan, flood-proofing plan, heritage easement agreement, affordable housing agreement, and a daycare agreement amongst others.

CHAPTER SEVEN: CASE STUDY AREA TWO
PORT CENTRE DEVELOPMENT PROJECT-TORONTO PORT AREA

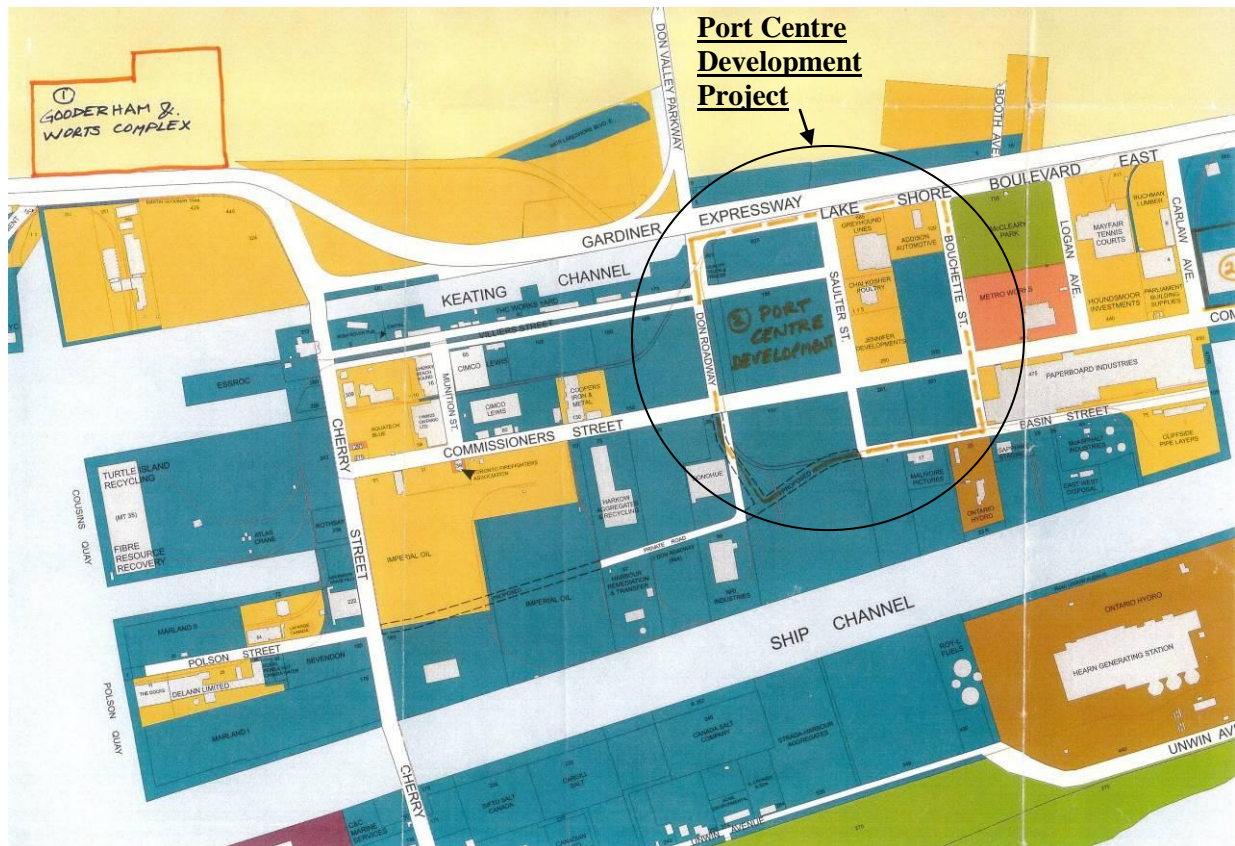


Exhibit 7.1: Partial Plan of the Port Area Showing Location of Port Centre Development (TEDCO, August 1997)

7.1 GENERAL CASE STUDY OVERVIEW²⁷⁸

7.1.1 Case Study Site

The Port Centre Development project (PCD) was initiated by the City of Toronto Economic Development Corporation (TEDCO).²⁷⁹ The project site is located at the north central area of the Portlands and it is bound by Lake Shore Boulevard East to the north, Don Roadway to the west, Bouchette Street to the east, and Basin Street to the south. The site area is about 16 hectares (40 acres). The proposed development comprised five properties totaling 14.2 ha (35 acres), which were all owned by TEDCO except for one property (Exhibit 7.2). The Addison Cadillac site, located at the northeast corner of the proposed development, was part of the new arena complex, but was subject to a separate amendment. There were three remaining parcels totaling 2.5 ha (6.4 acres), which were privately owned. Most of the PCD area was designated “*General Industrial*

²⁷⁸ The text of this section is based on the Overall Planning Report (TEDCO, 1996).

²⁷⁹ TEDCO is an arm length agency of the City of Toronto that is responsible for the revitalization of the Port Area. (City of Toronto – TEDCO, 1996, Overall Planning Report, Port Centre Development.

Area” in the City’s Official Plan (Exhibit 7.4). An Open Space designation was given to the Don Valley Roadway, which was part of a City strategy to create an open space system in the lower Don River system.



Exhibit 7.2: Aerial Photo of the Project Site for PCD (TEDCO, November 1996)

7.1.2 Problems, Challenges, and Opportunities Facing Redevelopment

The Port Area was initially created to accommodate industries which were shipping-related and which needed a somewhat isolated location adjacent to or in proximity to dockwall. It was recognized for some time that all of the Port Area was not needed for that purpose and there had been a number of efforts over the past to attract new industrial development.²⁸⁰ TEDCO felt that there were significant benefits that could be realized from the new development. However, it was also understood that the development was not without risks both for the City and for the local community. The main redevelopment opportunities were:

- Large site area available for redevelopment
- Four out of the five properties included in the proposal were owned by TEDCO
- Proximity of the site to downtown
- Proximity of the site to the waterfront
- Proximity of the site to an expressway and major highways

The main problems were as follows:

- Site contamination
- Most of the land was vacant
- The image of the Portland Area was not favourable

²⁸⁰ As stated in the Overall Planning Report for PCD, “the key challenge was to start a redevelopment process that would see new investment come to the Port Area without disrupting existing business or the recreational function that the area has taken on, or the nearby South Riverdale community”(TEDCO, November 1996).

- The surrounding land uses were predominantly industrial and the area was car oriented
- High taxes (TEDCO 1996, Overall Planning Report)

7.1.3 Development History & Proposal

TEDCO's development strategy for the Port Area called for higher-order industrial and commercial uses in a setting of improved streetscapes, infrastructure, and open spaces. The business strategy was to maximize revenues from existing and short-term leases and reinvest that income into capital improvements, joint venture development, and design/build opportunities. The goal of that approach was to gradually improve the Port Area environment and provide a greater range and amount of employment opportunities.

TEDCO was approached by a number of retail warehouse companies seeking location in the waterfront area. TEDCO considered the type of use that was not present in the City. A number of Official Plan policies were also introduced by the City of Toronto to guide the consideration of retail warehouse uses. In 1995, TEDCO put forward a proposal for the PCD project to allow the development of a mix of warehouse format retail uses and a large scale recreational facility within the north central location of Toronto Port Area.

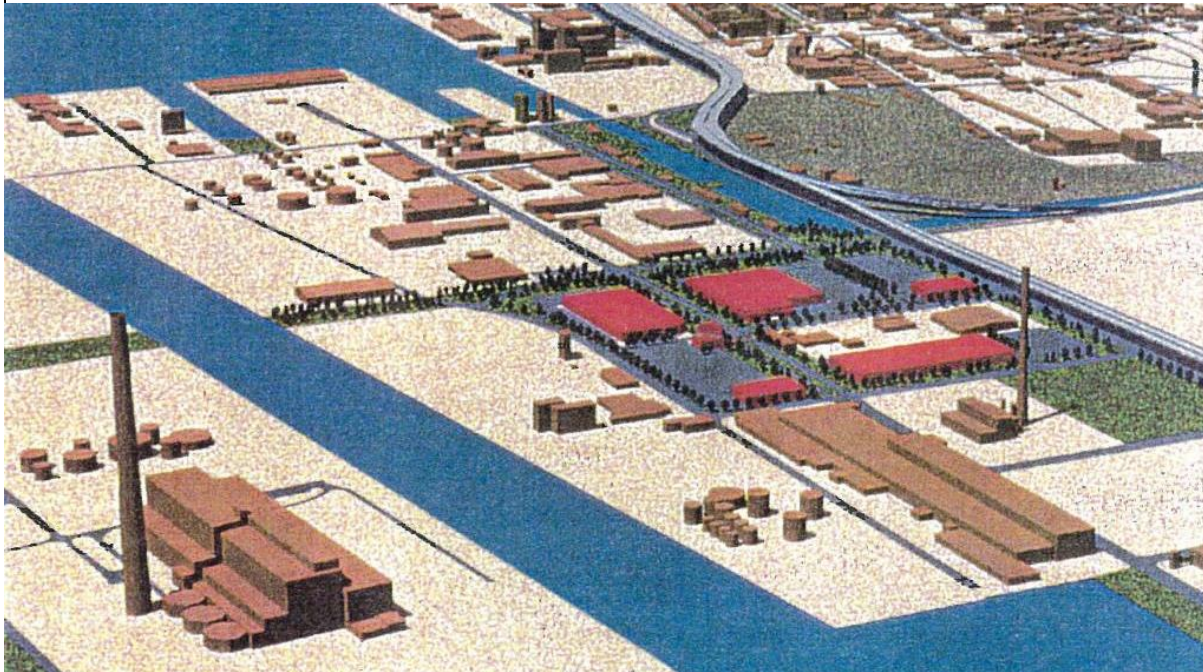
A preliminary review of the PCD project by the City concluded that the proposal could have a number of public benefits and the Official Plan could be amended to allow the new development provided that certain conditions were met.²⁸¹ The City Preliminary Report recommended that TEDCO undertake five studies as part of a comprehensive assessment of the PCD proposal including economic (retail) impact, industrial impact, open space, urban design, and transportation impact studies. Six study reports, prepared by private consultants, were submitted including a "General Planning Report" that outlined the overall project plan. The proposed PCD project included Price/Costco membership club, Knob Hill Farms store, Ice Arena Complex (privately operated), and other retail (Exhibit 7.3).

The nature, scale and location of the PCD proposal was seen by TEDCO as a major opportunity to resolve a number of readily apparent deficiencies in the Port Area. The proposal, through its design, was addressing the Area's image problem, and it was expected to bring

²⁸¹ These conditions included the following: • "There will be a little if no impact on the economic viability of existing shopping districts such as on Queen Street East and Gerrard Square Plaza, and on the viability of the Central Core as the major shopping destination of the Greater Toronto Area, • The City can accommodate a re-designation of industrially designated land to non-industrial use and that the re-designated land will not impact on surrounding industrial lands that are not re-designated, • The development will conform with the policies regarding the physical form of the City and open space, • The closing of Villiers Street is appropriate." (TEDCO, 1996).

activity to the area, particularly on weekends. The proposal was also seen by TEDCO as setting up a green infrastructure system and urban design pattern for future industrial development.²⁸²

<u>Exhibit 7.3: Port Centre Development Proposal (TEDCO, 1996, Overall Planning Report)</u>					
Property	Lot Area (m2)	Building/Uses Proposed	Building Area (m2)	Parking Spaces	Landscaped Area (m2)
Block 1: Don Roadway, Lake Shore Blvd., Saulter St., Commissioner St.	64,466	Price/Costco Other Retail	12,323 1,944	689	19,151
Block 2: Don Roadway, Commissioner St., Bouchette St., Basin St.	50,083	Knob Hill Other Retail	9,557 1,925	595	13,339
Block 3: Saulter St., Lake Shore Blvd., Bouchette St., Commissioner St.					
Arena Site:	27,113	Arena	9,480	301	7,289
Other Lands: Greyhound	9,945	Complex			
Chai Poultry	6,216				
Teperman	9,807				



View of Model for PCD Proposal (Red Color) (TEDCO, November 1996)

7.2 COMPREHENSIVE ANALYSIS OF PROJECT PLANS & PLANNING PROCESS

The site of PCD project, as well as the majority of the Port Area, is designated as “*General Industrial Area*” according to the City Official Plan Part I (Exhibit 7.4).²⁸³ This land use designation permits the construction of industrial buildings. The zoning designation for the project site is I3.D2 which allows various types of industrial uses (Exhibit 7.5). Given the

²⁸² TEDCO had the vision of only industrial and commercial uses within the PCD proposal. TEDCO excluded any residential uses because of its mandate being predominantly economic development with industrial and commercial uses being a better economic investment in terms of revenues and jobs.

²⁸³ There is no Part II Official Plan for the Port Industrial District (City of Toronto, TEDCO, November 1996).

proposed land use functions including retail and sports, Official Plan amendment and rezoning would be required for development approval.

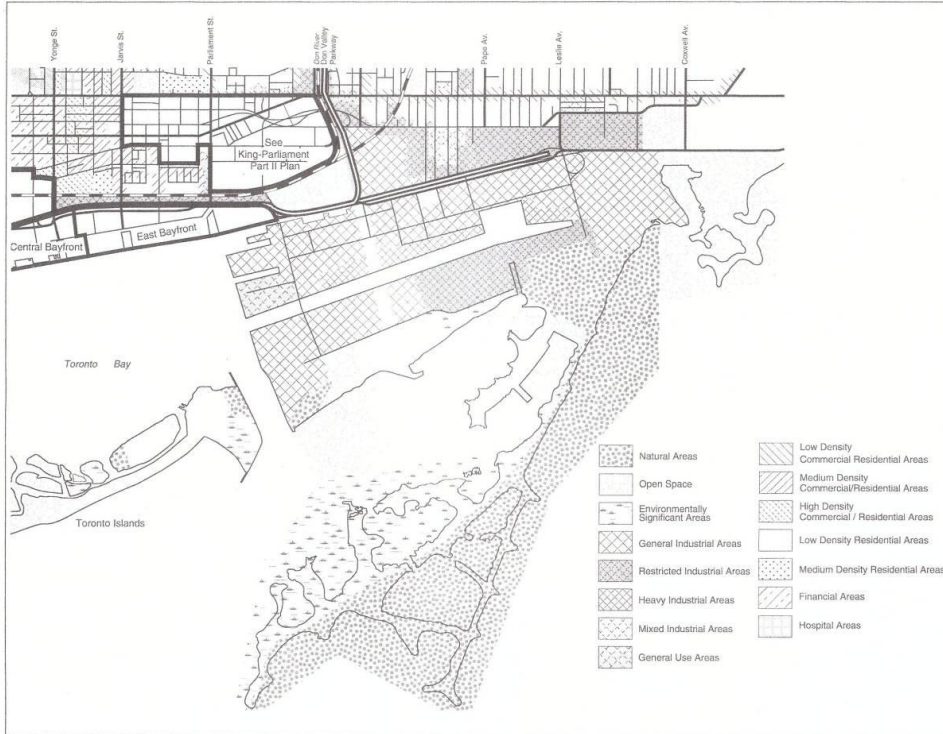


Exhibit 7.4: Existing Generalized Land Use - Official Plan Part I (City of Toronto, July 1999)

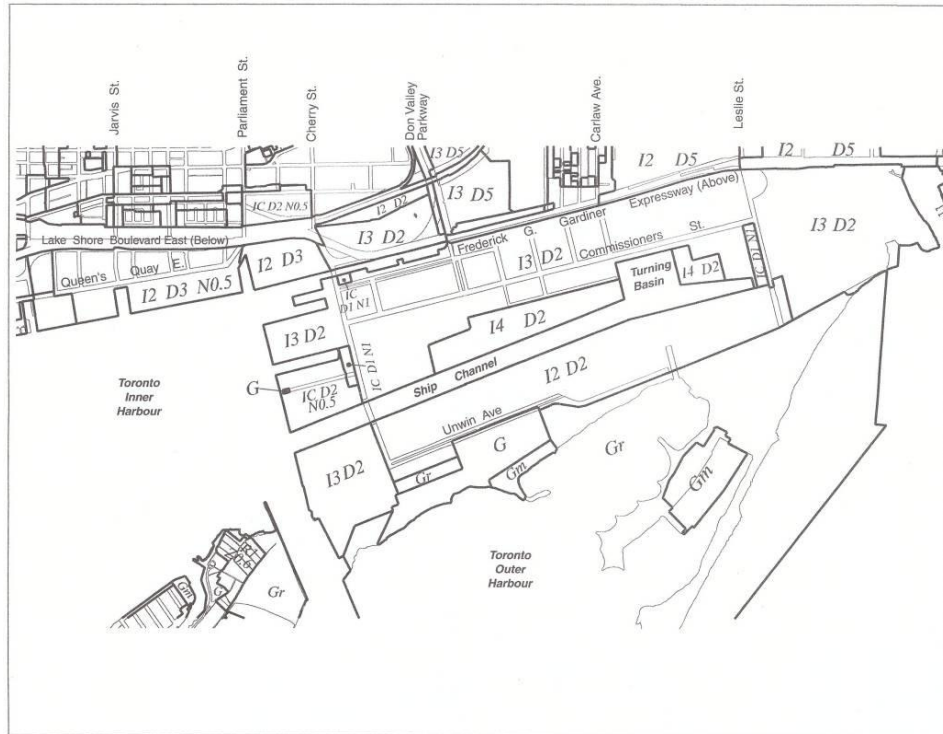


Exhibit 7.5: Port Area Zoning Map (City of Toronto, July 1999)

The planning process was primarily monitored by TEDCO as a primary developer and the City controlled project approval. However, preparation of plans and planning studies was primarily performed by private sector consultants that were commissioned by TEDCO. In addition, different forms of public participation were also performed.

7.2.1 TEDCO's Planning Process

TEDCO retained a consulting team to work closely together with the City in preparing the required support studies. The City also requested that the studies would incorporate views of the public and related interest groups in the decision making process.²⁸⁴ Public meetings included:

1. Initial Community Open Houses: Two open houses were held in the South Riverdale community which was jointly sponsored by TEDCO and the Greater Riverdale Economic Action Together (GREAT), a locally based economic development group. The aim of those sessions was to inform people about PCD project and the studies that were being done early in the process and before any substantive work was completed.²⁸⁵

2. Potential Users and Port Centre Land Owners: Throughout the studies, consultation was held with potential users of the PCD project as well as other land owners in the area. This included those interested in proceeding immediately with the development, as well as Chai Poultry, Greyhound and Addison Cadillac who were existing landowners within the project area.

3. Port Area Businesses and Real Estate Interests: Several consultations occurred to improve the understanding of the views of businesses and landowners surrounding PCD. A meeting was held with 20 businesses in the area and the majority was supportive of the PCD. Some concerns were expressed related to possible interference with industrial truck traffic, maintaining the area for industry and the potential spread of more retailing throughout the Port Area. A telephone survey of more than half of the surrounding 50 or so businesses were performed and the views were similar to those of the area business meeting. In addition, a round table session was held with members of the real estate community to explore the likely

²⁸⁴ Consultation and meeting with interested stakeholders included the following: *1. Initial Community Open Houses, 2. Possible Users and Port Centre Land owners, 3. Port Area Businesses and Real Estate Interests, 4. Retail Interests, 5. Open Space and Environment, 6. Urban Design and Transportation, 7. Community Meetings, 8. Open Houses* (TEDCO, 1996, Overall Planning Report, PCD)

²⁸⁵ The open houses were held on June 1996. The initial comments included: • *“Support for an approach and project which combined needed economic development with improvements to the environment, • Port Area and local community needs new development and investment, • Port Centre should be designed to avoid conflicts with trucks and less parking should be provided than in suburban areas, • Need connections to South Riverdale community to and through the Port Area, • Retail uses should not compete with Queen Street businesses, • Price/Costco could act as a convenient wholesaler to area business, and • Arena supported but needs to be well-designed* (TEDCO, November 1996, Overall Planning Report).

development outlooks and the attractiveness of the Port Area with and without PCD. The City's Economic Development Division also participated.²⁸⁶

All participants agreed that PCD project would be beneficial for the area in terms of improved services and amenity and more activity. However, they thought other issues had to be considered including: the lack of buildings suitable for multi-tenant use; leasehold tenure, and the need for a more flexible approach to land use zoning. The presence of heavy industry did not seem to be a major problem.

4. Retail Interests: A meeting was held between a number of retail interests in the downtown area with the City Planning Staff, TEDCO, and a private consultant for the Economic Impact Study. They reviewed the preliminary studies and the process. Also and as part of the Economic Impact Study, the private Consultant surveyed some 400 residents in the PCD trade area to understand their shopping habits.

5. Open Space and Environment: throughout the study, TEDCO had met with a variety of interest groups concerned about open space and environmental issues in the Port Area, which included the Don River Task Force, the City Cycling committee, the Waterfront Regeneration Trust, the City Urban Design Division and Friends of the Leslie Street Spit. Also, local environmental groups attended the community meeting.

6. Community Meetings (in August and September 1996): Community meetings were held to respond to questions and concerns raised as a result of the initial consultation process and the second briefing paper that outlined the findings of the studies. Those meetings concentrated on environmental issues.²⁸⁷ TEDCO and its Consultants had extensive reviews of community issues and concerns, mainly the potential impact of PCD on local retailers, particularly those along Queens Street. To assess this issue, TEDCO and its Consultants surveyed all of the businesses along the Queen Street strip and included an impact assessment of PCD on those businesses.

7.2.2 City Evaluation Framework of TEDCO's Support Studies

TEDCO submitted the required support studies, taking into account comments from the various stakeholders and concerned groups. City evaluation would include informal meetings with the local community, evaluation of TEDCO's studies by City departments, and Land Use

²⁸⁶ That session concluded major problems for the Port Area: 1. Its "scruffy" perception, 2. Soil Contamination, 3. High taxes, 4. Market limited to businesses that want or need a City location, 5. More competitive and broad industrial market in the suburbs, 6. The reluctance of developers to be "pioneers" (TEDCO, November 1996).

²⁸⁷ Another meeting was held in October 1996 which focused primarily on retail issues (TEDCO 1996).

Committee's recommendations would be discussed by Council in a public meeting. Council would make a decision on the recommended Official Plan and zoning (TEDCO, November 1996).

7.2.3 Findings of TEDCO's Supporting Impact Studies:

1. **Economic (Retail) Impact Study:** The study methodology included principal components mainly outlining supply and demand for new format retail uses and arena facilities as well as the impact of these proposed functions. The study was focusing on a special warehouse type retail functions. The study did not include different forms of retail and within various land use functional mix as potential alternatives for the proposed project. Accordingly, the study findings were limited to justifying the main targeted functions. In addition, this decision should also be related to the preferred future vision for the Port Area as perceived by the primary stakeholders like the City of Toronto as well as local community residents and groups.

2. **Industrial Impact Study:** The study approach incorporated three contextual and time frames including the site context, impact on surrounding area, and a longer term outlook for changes over ten years. The findings of the study were very general and could be viewed in different ways.²⁸⁸ The large amounts of existing vacant land within the Port Area indicated land use inefficiency and those lands might be utilized for a variety of functions. Also, selection of new functions had to be related to the future vision for the area and accepted by stakeholders.

3. **Open Space and Environmental Study:** A context plan was prepared which conceptually outlined a number of features of a "Green Infrastructure System", which included a major north-south green corridor along the Don Roadway and east-west corridors along Lake Shore Boulevard and along Commissioners Street (Exhibit 7.6). This study was an organizing tool used in preparing the PCD plans within the overall context.²⁸⁹

²⁸⁸ The findings of this study were as follows: i) *Despite large amounts of vacant land, the Port Area was a healthy industrial district, ii) Existing industries interviewed saw impacts of the Port Centre as positive, iii) Study's outlook saw new development over ten years could add 1,550 jobs and \$3.6 million in annual taxes, iv) Assessment was that Metro Toronto industrial policies were supported by the Port Centre Development* (TEDCO, November 1996).

²⁸⁹ The main features of the green infrastructure plan included the following: • "A major north-south corridor along the Don Roadway that provided stormwater quality treatment, greenspace, a pedestrian trail, varied wildlife habitat and travelways, air quality improvement and noise abatement, • An east-west corridor along Lake Shore Boulevard for commuter cyclists, stormwater quality treatment, habitat, air quality improvement and noise abatement. The cyclist trail should also link to Queen Street via Logan, Morse, and/or Carlaw, • An east-west corridor along both sides of Commissioners Street as a green setting for the industrial main street that provided stormwater treatment, greenspace, and air quality improvement" (TEDCO, November 1996).

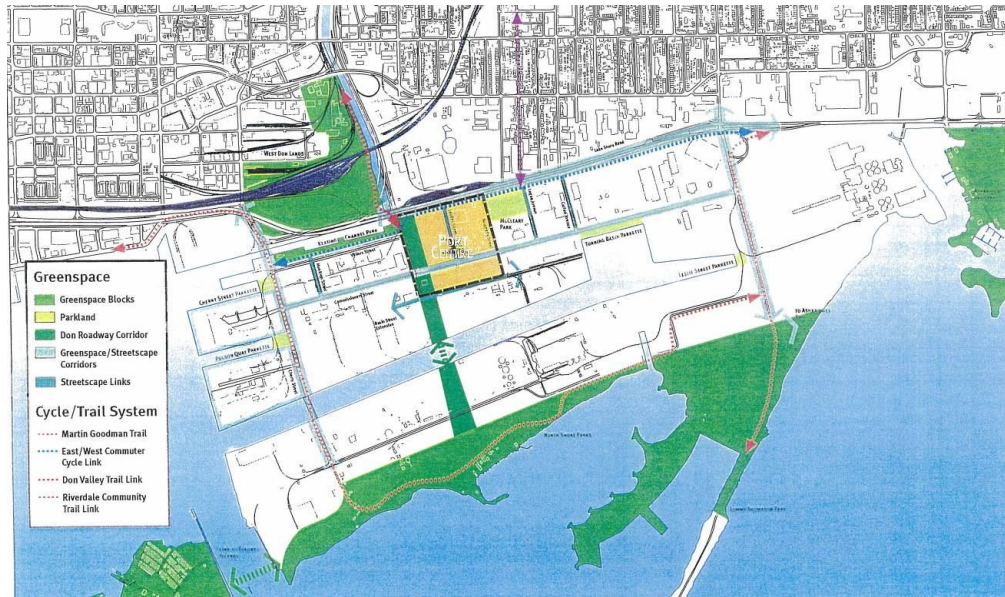


Exhibit 7.6: Port Centre Proposal - Green Infrastructure System that Provides the Context for the Design of the PCD (TEDCO, November 1996)

4. Urban Design Study: The City requested this study to identify how the proposed development would be consistent with Official Plan policies dealing with the “*Physical Form*” and “*Amenity*”, especially those of maintaining and improving the pedestrian environment.²⁹⁰ The main findings of the study concluded that the Port Area should remain physically and functionally distinct neighbourhood and that the warehouse format retail buildings were physically consistent and appropriate.²⁹¹ The findings were basically a justification for the proposed functions. Also, the findings would imply that the Port Area would remain as an industrial district with related functions. The study findings were inconsistent with City policy objectives in improving pedestrian environment. Also, the findings were inconsistent with other studies and objectives like the open space green infrastructure plan that would require more environmentally friendly functions, especially near waterfront areas. In addition, the study should at least address the linkages to the environmental, social, economic and political contexts when formulating urban design guidelines.

²⁹⁰ The Urban Design Study addressed the following: “• *The pattern and scale of existing streets*, • *The pattern and scale of development blocks*, • *The pattern, scale and distribution of parks and other open spaces*, and • *The scale and configuration of existing buildings* (TEDCO, November 1996).

²⁹¹ The main findings of the Urban Design Study included the following: “*i) The Port Area is, and should remain, a physically and functionally distinct neighbourhood*, *ii) Warehouse format retail buildings are physically consistent and appropriate*, *iii) Open space is an essential component and major organizing element of the district*, *iv) A street hierarchy which addresses the requirements of industrial traffic and servicing while recognizing emerging retail uses needs to be planned*, *v) Road connections should be carefully planned to maintain accessibility for industrial traffic and to limit infiltration into residential areas*” (TEDCO, November 1996).

5. **Traffic Impact Study:** The City requested a traffic impact study that would identify how City policy of ensuring truck access to industrial areas is maintained and improved. The primary objective was to examine the impact of additional traffic generated by the PCD on transportation operations in the area. The main study findings revealed manageable traffic impact, not compromised truck access, increase of transit usage, and improved situation for bicycle and pedestrian modes.²⁹² Essentially, the findings were also supporting the proposed project functions. The findings of improved pedestrian movement were inconsistent with the nature of the proposed physical-functional development (warehouse retail – Big Box) as well as the existing conditions that were more cars oriented environments.

7.2.4 Soil and Ground Water Strategy for TEDCO Lands in the Port Area

The major goal of the Soil and Ground Water Strategy was to develop an environmental framework for the restoration of soil and ground water conditions in the Port Area that was based on the biophysical conditions of the area. In addition, the Strategy was designed to be compatible with the principles enunciated in TEDCO’s environmental commitment, and the MOE “*Guidelines for Use of contaminated Sites in Ontario (1996)*.” The Strategy included two perspectives – one that focused on individual “*Site Management Initiative-SMI*” (micro-level), and one that considered the Port Area as a whole or the “*Area-Wide Initiative-AWI*” (macro-level). The strategy also included procedures to organize, display, and interpret environmental information, as well as mechanisms for “*Strategy Administration-SA*”.²⁹³

Site contamination within the PCD area included soil and groundwater contamination, and the original land fill included peat which produced methane gas. Also, it was acknowledged that there was migration of contaminants via ground water from the north to the south direction.

7.2.5 Environmental Site Remediation Process for Port Centre Development Site

²⁹² The Study findings were as follows: “*i) Overall Traffic Impacts of Port Centre are Manageable, ii) Truck Access Will not be Compromised, iii) Transit Usage Should Increase, iv) Situation Improved for Bicycle and Pedestrian Modes* (TEDCO, November 1996).

²⁹³ A brief outline of the three main parts of the strategy is as follows: “• **Area-Wide Initiative (AWI):** TEDCO, in cooperation with the City, and the MOE, monitors overall environmental quality in the Port Area through 13 groundwater monitoring stations, lake level measurements, ecological monitoring (soil organisms and plants), and by monitoring the amount of contaminants found by the City in the sewer system; • **Individual Site Initiative (ISI):** The Strategy outlines a process for TEDCO to manage environmental conditions on sites that it owns; • **Strategy Administration:** This includes the management of environmental information, the need to regularly review and update the strategy, the need to share information with other parties, and some form of agreement that lays out the roles and responsibilities of TEDCO and others that pertain to the strategy” (TEDCO April 1997).

The overall site area of the PCD was already subdivided into several individual sites. Environmental site assessment and remediation was not performed for the entire project area. However, environmental site assessment and remediation was performed on an individual property site at 300 Commissioners Street, which was previously used by Sunoco.²⁹⁴ Also, environmental assessment and preparation of a site remediation plan was performed on the three properties previously used by Imperial Oil, but actual implementation was not performed.²⁹⁵

7.2.5.1 Site Remediation at 300 Commissioners Street (Previously Used by Sunoco):

The site was flagged, which indicated that there was potential contamination. It was acknowledged that the site was contaminated and Sunoco was liable for site remediation. Sunoco agreed with TEDCO that they would perform site remediation. The process was proponent driven and accordingly MOE involvement was not mandatory and there was no mandate for site remediation. However, during the site plan approval process, the site conditions were reviewed by the City planner and the Environmental Health Officer at the Public Health Office and the proponent was directed to perform the environmental site assessment and site remediation according to the applicable MOE Guidelines. A copy of the review report by the Environmental Health Officer was sent to the MOE for records and another copy of the report to the City of Toronto Planning Division as part of development approval.²⁹⁶

7.2.5.2 Environmental Site Assessment at 185 and 625 Villiers Street and 101 Commissioners Street (Previously Used by Imperial Oil):

Imperial Oil owned the sites at 185 and 625 Villiers Street and leased the site at 101 Commissioners Street from TEDCO. Imperial Oil had used the sites since 1935 for petrochemical uses. It was acknowledged that the sites were contaminated and Imperial Oil was liable for site contamination according to the Environmental Protection Act (EPA). Imperial Oil was more inclined to sell to TEDCO the two sites they owned and to compensate TEDCO the cost of decontamination for the three sites. Accordingly, Imperial Oil performed an extensive environmental site assessment for the purpose of estimating the cost of a site remediation plan. TEDCO had also commissioned a private environmental consultant to prepare a site assessment

²⁹⁴ The planned future use for this site was a Hockey School (Sport Arena) (Key Participants, Interviews, 2000).

²⁹⁵ The two properties located at 185 and 101 Villiers Street were previously owned by Imperial Oil and the property at 101 Commissioners St. was leased by Imperial Oil from TEDCO (Key Participants' Interviews, 2000).

²⁹⁶ The verification report prepared by the Environmental Health Officer was sufficient for approving the environmental site remediation process and results, which would be part of the legal agreement between the City and the Developer. A record of site condition was not required by the MOE, since the site remediation process was proponent driven. The Verification Report prepared by the Environmental Health Officer is provided in Appendix A7.5. (Interview with the Environmental Health Officer, 2000).

and site remediation plan in order to get their estimate for site remediation cost. The site remediation plan was a form of a Site Specific Risk Assessment approach (SSRA) based on 1989 MOE Guidelines.²⁹⁷ In addition, the site remediation plan and its cost were based on clean-up criteria for the proposed commercial and industrial use only.²⁹⁸ Then TEDCO and Imperial Oil agreed on the adjusted cost for site remediation and transfer of ownership of the previously owned two sites, as well as the transfer of liability of site remediation for the three sites.²⁹⁹ Implementation of the site remediation plan was not performed on these sites because the project was not approved by the City.

7.2.6 Implementation of the Port Centre Development Project

The PCD project would require Official Plan amendment and rezoning. Among several recommendations in the Overall Planning Report for the PCD, it was recommended to include limited large scale retail uses within only the Port Area,³⁰⁰ which was a unique and debatable function within the sensitive waterfront area. The PCD site was originally zoned 13.D2 (Industrial) and it was recommended for rezoning to IC (General Use Area) and G zone (for Don Roadway greenspace corridor) in order to implement the recommended Official Plan policies.³⁰¹

It is important to note that the IC zone allows for general uses including industrial, commercial, offices, artists live/work studios. However, the planning study for the PCD only recommended industrial and commercial uses and did not recommend offices and artists live/work studios.³⁰² Also, the planning study recommended warehouse type retail and recommended an exemption from “*City’s general by-law that prohibits retail uses with non-*

²⁹⁷ The Site Specific Risk Assessment approach (SSRA) was not formally established at the time when the environmental site assessment took place in 1991. However, it was based on negotiation with the MOE (Interview with the Environmental Health Officer, Key Participants’ Interviews, 2000).

²⁹⁸ TEDCO’s project planner mentioned that estimated cost was based on proposed land uses. The residential use was excluded due to incompatibility with existing industrial uses and difficulty to attract new industrial/retail uses. That was basically TEDCO’s mandate that focused on economic development (Key Participants’ Interviews, 2000).

²⁹⁹ From an interview with the planner at TEDCO, the estimated cost of decontamination for the three sites was about \$18 million according to Imperial Oil. The price for land for the two sites (12 acres) Owned by Imperial Oil was about \$6 million. TEDCO added another \$20 million for decontamination cost and additional \$2 million for their site impact. (Key Participants’ Interviews, 2000).

³⁰⁰ The recommendation was for an Official Plan General Policy Amendment, which stated: *In order to stimulate new investment in the Port Industrial District through new development providing green space and service amenities in a fashion compatible with surrounding industrial uses, Council may designate lands in the Port Centre are for large scale retail uses. The Port Centre area will be the only area in the Port Industrial District where Council shall consider permitting such uses* (TEDCO, 1996).

³⁰¹ A summary of the Official Plan Policy and zoning by-law recommendations are outlined in Appendix A7.4 (TEDCO, 1996, Overall Planning Report, Proposed Port Centre Development).

³⁰² As stated in the Planning Report, the reason for not including artist live/work studios was because “*these uses would not be compatible with the objectives and other permitted uses of the Port Centre*” (TEDCO, 1996).

residential gross floor area greater than 1800m²". This analysis indicates that TEDCO and the consultant planners had specific land use functions for this project without a clear vision for the entire Port Area and then they attempted to amend City policies and by-laws accordingly.³⁰³

7.3 KEY PARTICIPANTS' INTERVIEWS – ANALYSIS & FINDINGS - (PCD)

Taped interviews with open-ended questions were conducted for nine primary Participants in the project as key informants representing the public sector, private sector, and local community residents.³⁰⁴ Only seven participants completed the structured (written) questionnaire for impact evaluation of selected problems and policy directions as perceived by Participants, which are outlined in Appendix A7.1 and in Appendix A7.2 respectively. The analysis of responses from Key Participants for the open-ended and structured interview questionnaire will be based on the same eight research units of analysis that were originally derived and discussed in Chapter Five.

7.3.1 Key Participants' Interview Responses on Environmental-Legal Planning Sub-process - Site Remediation Planning

The responses from Key Participants were primarily on the specific site within PCD located at 300 Commissioners Street where environmental remediation was performed by the previous user Sunoco.³⁰⁵ As conveyed by the Environmental Health Officer at the City of Toronto, the site was flagged which indicated potential environmental contamination.³⁰⁶ The main environmental problems included remaining oil tanks and soil contamination with hydrocarbons as a result of historical petrochemical use of the site. Also, there was ground water contamination and north-south migration of contaminants which required continuous monitoring.³⁰⁷ In addition, the project site was within a flood area but this was not a major issue.³⁰⁸

³⁰³ Another alternative approach could have been to collaborate with the City and the Community in defining a common vision for the Port Area through which a functional theme for the PCD project could emerge. It is important to note that the office function had been successfully applied in the redevelopment of the Toronto Hydro project within the Port Area. The office function might be used in the PCD (Key Participants' Interviews, 2000).

³⁰⁴ Public sector representation included the City of Toronto, Port Authority, and the Ministry of Environment and Energy (MOE). In addition, TEDCO, a quasi-public organization, was the primary project developer. Private sector representation included potential investor in the new development (Costco) and an urban planner who worked for the private planning consultant commissioned for this project. Community residents were also interviewed.

³⁰⁵ Sunoco, the previous user/polluter of the site was liable for decontamination cost. The newly proposed use on this site was a sports arena. Even though site remediation was performed according to the proposed use, the actual development project was not finally implemented.

³⁰⁶ The Environmental Health Officer (EHO) at the City of Toronto performed a major role and was directly involved in the environmental approval process. The EHO is part of the Environmental Health Service that is related to the Public Health Division. Since, the site remediation process was proponent driven, MOE was not directly involved. However, MOE was informed by the EHO about the process (Key Participants' Interviews, 2000).

³⁰⁷ Interview with the former project planner at TEDCO (Key Participants' Interviews, 2000).

³⁰⁸ Interview with the project planner at the City of Toronto (Key Participants' Interviews, 2000).

In general, the site remediation approach for the overall PCD site was following SSRA approach. The site remediation plan for 300 Commissioners Street was based on bioremediation of the impacted soils after removal of tanks.³⁰⁹ An engineered bioremediation cell (EBC), which was an impermeable liner, was used to contain the soil and was left in place at the end of the process. Implementation of bioremediation process was incrementally applied to this site. There was concern about off-site soil contamination and potential migration of contaminants into the site area. After satisfactory completion and testing of the process, a verification report was issued by the Environmental Health Officer to the City Planning Department with a copy to MOE.

Transfer of legal liability for three contaminated sites from the previous user/owner (Imperial Oil) to the new owner TEDCO through a purchase deal was problematic even though Imperial Oil was willing to compensate for the cost of site remediation. The issue was settled by the City and TEDCO providing indemnification for Imperial Oil from future liabilities.³¹⁰

Impact Evaluation of Environmental Problems & Selected Policy Directions³¹¹

Impact evaluation of the main problems/issues and policy directions for the “*Environmental-Legal*” component are outlined in Exhibit 7.7 and in the order of their magnitude as perceived by key participants in this project. In general, the “*Environmental-Legal*” component was important in the overall planning process. The overall average impact level of the selected environmental problems and issues ranked “▲ moderate”. While the overall average for selected policy directions ranked “● strong” impact.

Exhibit 7.7: Impact Evaluation of Problems and Policy Directions: Environmental-Legal Component			
Level of Impact	Problems and Issues		Policy Directions
Strong	●	<ul style="list-style-type: none"> Environmental site contamination. Human & natural ecosystem health hazard. 	<ul style="list-style-type: none"> Addressing environmental contamination & site remediation in the beginning. To define and confine legal liabilities of contamination.
Moderate-Strong	▲-●		<ul style="list-style-type: none"> Conditional lift of future liability of probable contamination from new purchasers of already cleaned sites.

³⁰⁹ In an interview with the Environmental Health Officer (2000), the site remediation plan was based on Level 2 environmental site assessment (ESA-2) which included site characterizations. The process was following MOE Guidelines of 1994. Bioremediation is a feeding process of bacteria and air in order to treat petrochemical contaminants resulting in water and carbon dioxide. Vapour management plan was applied to capture, treat with bio-filters, and then release the gas. Ambient air was also tested for compliance with quality standards.

³¹⁰ As pointed out by the former CEO of TEDCO, Imperial Oil was not satisfied with TEDCO’s indemnification alone and requested indemnification from the City of Toronto as well. However the City was not empowered to provide such indemnification until the Province gave permission to the City (Key Participants Interviews, 2000).

³¹¹ See Appendix A7.1 and Appendix A7.2 for complete responses from Key Participants on the structured/written interview questionnaire. The Environmental-Legal component included the highest response rate of 92% for problems impact and 100% for policy directions of the total number of actual questions for this component.

Moderate	▲	<ul style="list-style-type: none"> • Perceived legal liabilities of contamination. • Future legal liabilities of contamination 	
Weak-Moderate	□-▲	<ul style="list-style-type: none"> • Current legal liabilities of contamination • Real legal liabilities of contamination • Government commitment to approval of site remediation. 	
Weak	□	<ul style="list-style-type: none"> • Clarity and consistency of current government approval process. • Length of procedure (time delay). 	
Overall Average		Moderate (▲)	Strong (●)

The problems of “*environmental site contamination*” and “*human and natural ecosystem health hazards*” ranked “● strong” on average which was consistent with the impact level of pertinent policy direction of “*addressing environmental contamination and remediation in the beginning of the process*” that also ranked “● strong”. The “*perceived legal liabilities of contamination*” and “*future legal liabilities of contamination*” ranked “▲ moderate”. And “*current legal liabilities of contamination*” rated “□-▲ weak-moderate” impact. This was inconsistent with the impact level of the pertinent policy directions “*defining legal liability for contamination*” that ranked “● strong” and “*conditional lift of future liability...*” that ranked “▲-● moderate-strong” impact. One explanation for the low level problem impact for “*current legal liabilities...*” in this case might be the fact that TEDCO managed to get the cost of site remediation from the original users/polluters and it was assuming legal liability risk. However, the pertinent policy directions regarding legal liabilities appeared to be important to this project as perceived by the key participants.

7.3.2 Key Participants’ Interview Responses on Physical-Functional Planning Sub-process – Land Use Planning, Urban Design, Site Planning, etc. - PCD

The overall vision and mandate for TEDCO was mainly focusing on economic development and creating jobs.³¹² The existing land uses within the Port Area were mostly industrial and port related functions. The existing zoning was industrial and there was initial inclination by the major stakeholders including the City of Toronto, TEDCO, and the Harbour Commission to retain the industrial function of the area. However, businesses were leaving the area and it was difficult to market the PCD project for industrial uses. There was land use incompatibility between the industrial functions and surrounding land uses. In addition, the area was becoming more people friendly. In general, the project site did not have specific heritage features to

³¹² Interview with the former CEO at TEDCO (Key Participants. Interviews, 2000).

preserve. However, the Port Area, being close to the waterfront and having the Don Valley green corridor, might be considered as natural heritage features to be preserved.

TEDCO started to look for marketable functions for the project and maintaining the main vision for economic development and job creation. TEDCO considered warehouse type retail commercial functions and a sports arena as ideal for the site, given the convenient automobile access and land availability. The residential use was excluded because it did not fall within TEDCO’s mandate for economic development and job generation.³¹³

The City was not in agreement with TEDCO on the proposed functional theme which was perceived as suburban “Big Box” function.³¹⁴ The newly proposed functions will compete with local small businesses at the City core and hence perceived negatively by the local business groups as well as local residents. The new project would imply more automobile oriented environment. Furthermore, and according to the City, the new physical-functional theme for the PCD project was not addressing the overall vision for the Port Area.³¹⁵ Accordingly, the City did not approve the project.

Impact Evaluation of Physical Problems & Selected Policy Directions (Exhibit 7.8)³¹⁶

In general, most of the selected problems ranked “■ very strong” and “● strong” impact as perceived by key participants including “*physical dilapidation of buildings*”, “*site accessibility and visibility from main transportation routes*”, and “*vacant or abandoned or underutilized buildings and sites*”. “*Availability of public transportation*” ranked “▲-● moderate-strong” impact. While “*deterioration of physical infrastructure networks and declining environmental image*” ranked “▲ moderate” impact. In general, the overall average impact for selected problems ranked “● strong” which indicates that they were relatively significant in this case.

Exhibit 7.8: Impact Levels of Problems and Policy Directions: Physical-Functional Component-PCD			
Level of Impact	Problems and Issues		Policy Directions/Guidelines
Very Strong	■	● Physical dilapidation of buildings.	
Strong – V. Strong	●-■	● Accessibility to main transportation routes ● Site visibility from main transport. routes.	

³¹³ TEDCO’s mandate was focusing primarily on functions that foster economic development and job generation. In TEDCO’s opinion, the residential function is excluded. Also, there was concern about introducing residential use which might make it difficult to attract industrial functions. In addition the residential function would imply higher cost of site remediation due to more stringent cleanup criteria (Interview with the City project planner & former project planner at TEDCO, 2000).

³¹⁴ Interview with the project planner at the City of Toronto (Key Participants. Interviews, 2000).

³¹⁵ Interview with the President and CEO of Toronto Port Authority and former planning commissioner, 2000.

³¹⁶ See Appendix A7.1 and Appendix A7.2 for complete responses from Key Participants on the structured/written interview questionnaire. The Physical-Functional component included a response rate of 73% for problems impact and 71% for policy directions out of the total number of actual questions for this component.

Strong	●	<ul style="list-style-type: none"> • Vacant or abandoned buildings & site • Underutilized buildings & site. 	
Moderate-Strong	▲-●	<ul style="list-style-type: none"> • Availability of public transportation. 	
Moderate	▲	<ul style="list-style-type: none"> • Deterioration of physical infrastructure. • Declining environmental image of the area 	<ul style="list-style-type: none"> • To reclaim lost urban space. • To achieve environments with a sense of place and community
Weak	□-▲		<ul style="list-style-type: none"> • To prepare an inventory of contam. sites. • To maintain a balance between heritage conservation & urban innovation.
Overall Ave.		Strong (●)	Weak-Moderate (□-▲)

The policy directions/guidelines of “reclaiming lost urban space” and “achieving environments with a sense of place and community” ranked “▲ moderate” which indicated a level of importance to the PCD project and the Port Area in general. While the policy directions/guidelines of “preparing an inventory of contaminated sites” and “maintaining a balance between heritage conservation and urban innovation” ranked “□-▲ weak-moderate”. The explanation for this relatively low rating may be the fact that the PCD project and the Port area in general do not have significant built heritage to conserve; however, the area is close to the waterfront that is considered as an important natural heritage to be preserved. Also, most of the contaminated sites within the Port Area were potentially known due to the nature of previous industrial land use functions, which makes an inventory of those sites less important.³¹⁷

7.3.3 Key Participants Interview Responses on the Economic Planning Sub-process – Financial Planning and Marketing

In general, project financing was primarily self-funded through TEDCO. Also, start-up funding was not a problem even though the project site was considered as negative value land. The cost of site remediation for one site within the project was covered by the previous user Sunoco.³¹⁸ Also, the cost of site remediation for three other sites was compensated by the previous user Imperial Oil.³¹⁹ Furthermore, TEDCO managed to market the project for potential private investors like Price Club/Costco and Knob Hill Farms in the beginning of the process. As

³¹⁷ The site at 300 Commissioners Street within the PCD was already flagged, indicating potential contamination (Key Participants’ Interviews, 2000).

³¹⁸ Sunoco had leased the site (300 Commissioners Street) from TEDCO. Before returning the site, it was agreed that Sunoco would perform site remediation themselves and according to acceptable standards by MOE (Interviews with the project planner at TEDCO and Environmental Health Officer at the City of Toronto, 2000).

³¹⁹ Imperial Oil used to own two of those sites and had leased the third one from TEDCO. As part of a sale deal for the two properties to TEDCO, it was agreed that Imperial Oil will compensate the cost of site remediation for the three sites based on a site remediation plan following acceptable clean-up standards by MOE. The estimated cost of site remediation was 1.5million/acre and the selling price (of clean site) was \$0.5 million/acre. The outcome of the sale deal, TEDCO received an amount of \$10M-\$15M in addition to obtaining title of the two properties. On the other side, TEDCO and the City of Toronto would indemnify Imperial Oil from future legal liabilities (Interviews with the former CEO and the former project planner at TEDCO, 2000).

outlined earlier, the project was to generate numerous full-time and part-time jobs and would increase municipal taxes.

Given this picture, TEDCO was successful in planning to achieve its mandate and objective of fostering economic development including job generation, increasing taxes, as well as for arranging a financially feasible project. The economic development proposal focused on large scale commercial and industrial functions to generate a strong economic base. The proposal excluded the residential function because it was perceived as not job generating function and hence not within the mandate of TEDCO. Even though TEDCO was successful in the economic planning sub-process, they were not that successful in at least the political-organizational and the physical-functional planning sub-processes. TEDCO and the City could not resolve their conflict of vision on the PCD functional theme (Big Box warehouse retail) and the future of the Port Area, as well as the conflict with local business groups and community residents.

Impact Evaluation of Economic Problems & Selected Policy Directions (Exhibit 7.9)³²⁰

The overall average impact of selected problems ranked “□-▲ weak-moderate”. However, an outstanding problem was “*market impact on local retail*” that ranked “■ very strong”, which was brought up by a Key Participant. This was consistent with the problem of conflict with local small businesses that perceived negative impact from the proposed “Big Box” type of retail commercial. “*Project economic feasibility and marketability*” was not perceived as a problem by the key participants and ranked “□-▲ weak-moderate” impact. This was also consistent with the previous finding that the project was financially feasible, since TEDCO secured the cost of site remediation from previous users/polluters and also secured potential investors in the beginning.

Exhibit 7.9: Impact Levels of Problems and Policy Directions: Economic Component – PCD			
Level of Impact		Problems and Issues	Policy Directions
Very Strong	■	• Market impact on local retail market.	
Strong	●		• To develop financial/redevelopment Incentives.
Moderate-Strong	▲-●		• To arrange for early marketing. • Availability of environmental liability insurance to cap site remediation costs and control future liabilities.
Moderate	▲	• Declining property values & tax base	• To establish public-private partnership for project financing
Weak-Moderate	□-▲	• Impact of site remediation cost on project financial feasibility.	

³²⁰ See Appendix A7.1 and Appendix A7.2 for complete outline of responses from Key Participants on the structured/written interview questionnaire. The Economic component included a response rate of 74% for problems impact and 68% for policy directions out of the total number of actual questions for this component.

		<ul style="list-style-type: none"> • Declining economic redevelopment market. 	
Weak	□	<ul style="list-style-type: none"> • Project perception is economically not feasible. • High cost of building conservation /restoration. • Scarcity of public & private funding 	
Overall Average		Weak-Moderate (□-▲)	Moderate-Strong (▲-●)

The overall average for selected policy directions rated “▲-● moderate-strong” impact, which indicates relative importance to this case study. “*Developing financial and other redevelopment incentives*” ranked “● strong” impact, while “*arranging for early marketing*” and “*availability of environmental liability insurance*” ranked “▲-● moderate-strong”. The policy direction of “*establishing a public-private partnership*” ranked “▲ moderate.”

7.3.4 Key Participants’ Interview Responses on Social Planning Sub-process - Social Issues, Social Equity & Safe Community Planning - PCD

Responses from Key Participants indicated that there were no social inequity issues. A primary objective for the project was job generation and planning recommendation was to ensure local community access to new employment opportunities. In addition, the development proposal included provision of social amenities and public open spaces. TEDCO arranged project presentations to allow for community participation in the planning process. There was concern about social problems and safety issues regarding vacant sites especially at night. However, there were no significant crime issues in the area.³²¹

Impact Evaluation of Social Problems & Selected Policy Directions (Exhibit 7.10)³²²

The overall average impact of selected problems ranked “□-▲ weak-moderate”, which indicates they were relative less significant in this project. However, the problem of “*social stigmatization of the area*” ranked “▲ moderate” impact which indicates a level of importance in this case. “*Social inequities/injustice ...*” ranked “□-▲ weak-moderate” and all other problems ranked “□ weak” impact.

Exhibit 7.10: Impact Levels of Problems and Policy Directions: Social Component - PCD		
Level of Impact	Problems and Issues	Policy Directions
Moderate-Strong	▲-●	<ul style="list-style-type: none"> • To foster social equity and justice through community participation. • To achieve socially safe environment

³²¹ The project planner at the City of Toronto pointed out social problems and illegal dumping associated with vacant sites in the Port Area (Key Participants’ Interviews, 2000).

³²² See Appendix A7.1 and Appendix A7.2 for complete outline of responses from Key Participants on the structured/written interview questionnaire. The Social component included a response rate of 75% for problems impact and 81% for policy directions out of the total number of actual questions for this component.

			through community participation.
Moderate	▲	• Social stigmatization of the area.	• Securing accessibility of local residents to newly provided opportunities.
Weak - Moderate	□-▲	• Social inequities/injustice due to negative socio-economic impact.	
Weak	□	• Low education levels and high unemployment rate among residents enhance problems of job accessibility • Social problems associated with abandoned sites (vandalism & crime).	
Overall Average		Weak-Moderate (□-▲)	Moderate-Strong (▲-●)

The overall average perceived impact level for the selected policy directions and guidelines ranked “▲-● moderate-strong”, which indicates their relative importance in this case. The outstanding policy directions that ranked “▲-● moderate-strong” were “*achieving social equity and safe environments through community participation*”.

7.3.5 Key Participants Interview Responses on the Political-Organizational Planning Sub-process - Stakeholders’ Organization and Partnership - PCD

Given project failure, the main stakeholders’ conflicts as viewed by participants were as follows:

- *Imperial Oil versus TEDCO and the City of Toronto (Sale of Properties to TEDCO)*
- *TEDCO versus Local Business Groups*
- *TEDCO versus Local Community*
- *TEDCO versus City of Toronto (Approval of proposed development project)*

- **Imperial Oil versus TEDCO and the City of Toronto:**³²³ Imperial Oil was the user-owner of two sites and had leased the third site from TEDCO. TEDCO was more inclined to purchase the properties owned by Imperial Oil rather than leasing the land. Imperial Oil was willing to sell the two properties and to compensate for the cost of required site remediation provided that the City of Toronto and TEDCO indemnify Imperial Oil from future legal liabilities of environmental contamination. The City and TEDCO were willing to provide the indemnification; however, the City did not have the power to sign this indemnification. Imperial Oil was not satisfied with TEDCO alone signing the indemnification agreement. As the case was reaching a dead-end, the Province gave permission to the City to sign the indemnification agreement and the purchase deal was completed accordingly.³²⁴

³²³ This outline was based on interview responses from the former CEO at TEDCO and from the former project planner at TEDCO (Key Participants’ Interviews, 2000)

³²⁴ As outlined by the former CEO at TEDCO, the site was negative value land and the cost of site remediation was about three times the real estate value of the clean land. As a result, TEDCO received a check from Imperial Oil for the difference (about \$10M-\$15M) (Key Participants’ Interviews, 2000).

- **TEDCO versus Small Business Groups:** The proposed “Big Box” retail within the PCD project was negatively perceived by the local small business groups within the City core as well as by the City of Toronto and local community residents.³²⁵ Even though the planning studies commissioned by TEDCO indicated potential negative impact on local small businesses, this conflict was not resolved and became one of the main factors that contributed to project failure.

- **TEDCO versus Local Community Residents:**³²⁶ There was a conflict of vision between TEDCO’s emphasis on economic development in the form of “Big Box” retail and sports arena complex vis-à-vis community priority vision emphasizing environmental issues including green jobs and ecological-economic sustainability. The local residents viewed the “Big Box” commercial as a polluter and detriment to common small businesses. Local residents were also inclined to addressing an overall planning vision for the Port Area rather than only concentrating on the PCD project site. In addition, local residents did not perceive proper community involvement in the process and TEDCO was only informing the community about the project. As a result, the local community was against the proposal.

- **TEDCO versus the City of Toronto:** The City of Toronto essentially owned TEDCO and there were City Council members at TEDCO board.³²⁷ As conveyed by the former City Commissioner that in addition to the TEDCO-City conflict of vision there was TEDCO-TEDCO conflict of vision between groups within. In general, the conflict was basically between the “right wing” represented by the business group that advocated for the “Big Box” PCD project and the “left wing” represented by City Council members at TEDCO board as well as the union members. The “right wing” vision was for increased wealth and taxes, while the “left wing” vision was more into social and environmental issues. Also, the planners at the City of Toronto, even though they were in agreement in the beginning with the proposed “Big-Box” project, they changed their opinion after realizing the negative impacts of the project and TEDCO’s piece meal development that lacked overall vision for the Port Area.

³²⁵ Interviews with Respondents at the City of Toronto, TEDCO, and local community, 2000.

³²⁶ This outline was based on Interviews with community residents and private planning consultant (Key Participants’ Interviews, 2000)

³²⁷ TEDCO was created by the City as an autonomous self-financed entity. However, the City of Toronto essentially owned TEDCO and there were about three from City Council at TEDCO’s board (out of a total of 8-13 members). TEDCO was a creature of the City. In addition, the City of Toronto was also the development approval authority.

As a result, the City of Toronto was refusing the proposed project.³²⁸ The City perceived the proposed “Big Box” project as more suburban than urban and the emerging City vision for the Portlands was becoming more people oriented and close to the waterfront, more intensive use, more pedestrian and cyclists, and less car oriented.³²⁹ The proposed PCD project was voted for at TEDCO board. However, there was no vote at City Council.³³⁰ The City refused the PCD project and TEDCO accepted the refusal without going to the OMB.³³¹

Main Stakeholders’ Agreements and Partnership

The main stakeholders’ collaboration and partnership included the following:

- **TEDCO - Imperial Oil - City of Toronto (Public-Private):**³³² This was the sale agreement of the two properties owned by Imperial Oil to TEDCO which was outlined earlier.
- **TEDCO – Price Club/Costco (Public-Private):** This was the land lease agreement which was signed in advance before even project approval.
- **Small Business Groups – Local Community Residents:** Both local residents and small business groups were in agreement against the proposed project.
- **MOE – City of Toronto – TEDCO (Public-Public):** This was the memorandum of understanding regarding the site remediation process at the Portlands.

Impact Evaluation of Political Problems & Selected Policy Directions (Exhibit 7.11)³³³

Based on the responses of key participants, the overall average impact level of selected problems and policy directions rated “● strong”, which indicates their importance in the project. The outstanding problems were “*stakeholders’ conflicting goals*” and “*lack of stakeholders’ consensus ...*” that ranked “●-■ strong-very strong” impact. Also, “*lack of stakeholders’ organizational & collaborative commitment*” ranked “● strong” impact. “*Lack of special redevelopment authority*” ranked “▲ moderate”. In this case study, TEDCO is a form of redevelopment authority with a primary objective to achieve economic development and increasing job opportunities in the area. In general, the results indicate that there were strong

³²⁸ The main factors for refusal were: ● Negative impact of the new “Big Box” retail on local small businesses, ● Negative impact on increased automobile traffic, and ● Lack of overall planning vision for the Port Area (Interview with the former City Commissioner of Urban Development, 2000).

³²⁹ Interview with the project planner at the City (Key Participants’ Interviews, 2000).

³³⁰ Interview with former City Commissioner of Urban Development (Key Participants’ Interviews, 2000).

³³¹ Interview with the project planner at the City (Key Participants’ Interviews, 2000).

³³² TEDCO is considered quasi-public even though its structure is similar to a private corporation. It is owned by the City of Toronto (Key Participants’ Interviews, 2000).

³³³ See Appendix A7.1 and Appendix A7.2 for complete outline of responses from Key Participants on the structured/written interview questionnaire. The Political component included a response rate of 91% for problems impact and 34% for policy directions out of the total number of actual questions for this component.

conflicts among stakeholders which are consistent with previous findings. These results also explain project failure.

Exhibit 7.11: Impact Levels of Problems and Policy Directions: Political Component – PCD		
Level of Impact	Problems and Issues	Policy Directions
Strong – V. Strong	●-■ <ul style="list-style-type: none"> • Conflicting goals, interests, and values of primary stakeholders. • Lack of stakeholders consensus on major objectives & issues 	
Strong	● <ul style="list-style-type: none"> • Lack of stakeholders’ organizational and collaborative commitment. 	<ul style="list-style-type: none"> • To develop special redevelopment authority. • To establish stakeholders’ partnership <ul style="list-style-type: none"> - Public-public partnership. - Public-private partnership. - Private-private partnership
Moderate- Strong	▲-● <ul style="list-style-type: none"> • Lack of stakeholders’ commitment to achieve objectives. 	
Moderate	▲ <ul style="list-style-type: none"> • Lack of special redevelopment authority that is directly responsible. 	
Overall Ave.	Strong (●)	Strong (●)

The selected policy directions rated “● strong”, which indicates that they are relatively significant. “*Developing special redevelopment authority*” like TEDCO was perceived as having a “● strong” impact. Also, “*establishing partnerships*” including “*Public-Public*”, “*Public-Private*”, and “*Public-Private-Community*” partnerships ranked “● strong”. It is lack of collaboration and partnership between the City and TEDCO that contributed to project failure.³³⁴

7.3.6 Key Participants Interview Responses on Project Implementation and Phasing

The project was initiated by the primary developer TEDCO who managed to secure potential private investors in the beginning of the process. In general, the project was not implemented. However, site remediation of a particular property within the project (300 Commissioners Street) was performed by the previous user/polluter (Sunoco) as part of their legal liability. The overall project site was already subdivided which would allow a potential for phased implementation. However, the project was not approved by the City.

Impact Evaluation of Problems and Policy Directions – Implementation (Exhibit 7.12)³³⁵

The overall average impact level for the selected problems/issues ranked “□-▲ weak-moderate”, which was possibly due to the project was not implemented. However, “*difficulty of project*

³³⁴ Even though City Councilors were on TEDCO’s Board, there was no real collaboration and partnership between the City and TEDCO. Instead, there was a conflict of vision and objectives in terms of the proposed functions in the project, mainly the “Big Box” retail function (Key Participants’ Interviews, 2000).

³³⁵ See Appendix A7.1 and Appendix A7.2 for complete outline of responses from Key Participants on the structured interview questionnaire. Impact evaluation of project implementation included a response rate of 69% for problems impact and 34% for policy directions out of the total number of actual questions for this component.

initiation due to high risks and uncertainty” ranked “▲-● moderate-strong,” which explains the associated risks of the newly proposed “Big Box” functions, given that cost of site remediation liability was secured from the previous site users. The results of impact evaluation of selected policy directions ranked “▲ moderate”, which indicate a level of their significance.

Exhibit 7.12: Impact Levels of Problems & Policy Directions: Project Implementation –PCD			
Level of Impact	Problems and Issues		Policy Directions
Moderate-Strong	▲-●	• Difficulty of project initiation due to high risk & uncertainty	
Moderate	▲		<ul style="list-style-type: none"> • Addressing site remediation 1st & site redevelopment as 2nd phase. • Adopting gradual site remediation & redevelopment strategy especially for large sites
Weak-Moderate	□-▲	• Long time delays in the process.	
Weak	□	<ul style="list-style-type: none"> • Difficulty of phasing of site remediation as 1st phase & site development as 2nd phase. • Difficulty of gradual implement. phasing through sub-area dev. due to site conditions 	
V. Weak - Weak	○-□	• Difficulty of gradual implementation phasing through sub-area dev. due to legal requirements.	
Overall Average	Weak-Moderate (□-▲)		Moderate (▲)

7.3.7 **Key Policy Direction – Tax Increment Financing (TIF/TIEF) (Self Financing)**

Most of the project site was vacant with essentially no tax base and any development would be a total tax increment.³³⁶ Based on case study information, the potential tax increments from new project development as well as from impact on surrounding properties would potentially cover the cost of site remediation over a period of approximately 10-15 years.³³⁷

Impact Evaluation of Problems and Policy Directions – Key Policy (Exhibit 7.13)³³⁸

The response from key participants in the process revealed that new site redevelopment had a “●-■ strong-very strong” impact on both property values and property taxes. Also, the new site

³³⁶ Interview with the City project planner (Key Participants’ Interviews, 2000).

³³⁷ In an interview with the former CEO and the former project planner at TEDCO, the estimated cost for site remediation retrieved from Imperial Oil for the properties they used was about \$1.5 M/acre (which is on the very high end)(Key Participants’ Interviews, 2000). According to the planning studies, the PCD project was expected to result in \$2M per year for total realty and business taxes and \$1.5M per year for increased taxes on surrounding properties. This brings the total tax increment to \$3.5M/y (or an average of \$0.1M/y per site acre given a total site area of 35 acres). Assuming the cost of site remediation is about \$1M-\$1.5M/acre (which is still very high), this cost can be covered by future tax increments within 10-15 years. This may potentially be the basis for a tax increment financing program.

³³⁸ See Appendix A7.1 and Appendix A7.2 for complete outline of responses from Key Participants on the structured interview questionnaire. Impact evaluation of Key Policy Direction (TIF) included a response rate of 24% for problems impact and 35% for policy directions out of the total number of actual questions for this component. This is relatively low response rate due to lack of knowledge of Participants about this specialized component.

redevelopment had impact on surrounding properties. Considering the positive future tax increments on surrounding properties in addition to tax increments on the project site redevelopment, the cost of site remediation could be covered within 15 years as perceived by key participants. Also, responses from key participants revealed that “*institutional or organizational factors*” had “■ very strong” impact, an obstacle facing establishment of a TIF/TIEF program within the Canadian context. The impact of “*legal factors - Municipal Act*” on a TIF/TIEF ranked “□-▲ weak-moderate” as perceived by the key participants. However, the policy direction of “*developing a self-financing mechanism (like TIF/TIEF) ...*” ranked “●-■ strong-very strong”. This indicates that this policy direction is worth considering in a more detailed study.

Exhibit 7.13: Impact Levels of Problems & Policy Directions: Key Policy Direction - PCD			
Level of	Problems and Issues		Policy Directions
Very Strong	■	<ul style="list-style-type: none"> Problems facing TIF/TIEF plan like institutional or organizational factors 	<ul style="list-style-type: none"> Future property tax increments after site redevelopment can capitalize site remediation cost within 20+ y.
Strong - V. Strong	●-■		<ul style="list-style-type: none"> Developing self-financing mechanism (like TIF/TIEF) to finance cost of site remediation (Canadian context). Future property tax increments after site redevelopment can capitalize site remediation cost within 20 y
Strong	●		<ul style="list-style-type: none"> Future property tax increments after site redevelopment can capitalize site remediation cost within 15 y
Weak - Moderate	□-▲	<ul style="list-style-type: none"> After site development, the expected property tax increments for the site & surrounding properties will be low to finance site remediation cost. Problems facing TIF - legal factors, Municipal Act 	
Overall Ave.	Weak-Moderate (□-▲)		Strong (●)

7.3.8 Responses of Key Participants on Overall Multiple-Component Planning Process

The overall planning process included multi-stakeholders mainly the developer TEDCO and their team of private consultants, the City approval authority, in addition to local business groups and community residents. Also, the process included private sector investors in the project. There were multi-disciplinary planners working within each of the main groups including the developer/TEDCO, the City approval authority, and private sector consultants and investors. Regarding integration among the different planning components, the former project planner at TEDCO outlined that the main issues to consider were having an updated information database including good mapping, land use inventories, and the key was to listen and include other

participants in the process.³³⁹ The vision for the project was primarily emerging from TEDCO’s mandate that was primarily focusing on economic development and job generation in the form of “Big Box” development.³⁴⁰ Also, the emphasis was more on the PCD project and did not fully address the overall vision for the Port Area. The planning studies were primarily focusing on economic criteria and physical-functional issues as they relate to economic development. The attempt was to justify the preconceived economic development vision for PCD while environmental, social and urban design issues were slightly addressed in the planning process.

Impact Evaluation of Problems & Selected Policy Directions – Overall Planning Process³⁴¹

The overall average impact level for selected problems rated “▲-● moderate-strong”, which indicates their relative importance for this case (Exhibit 7.14). The outstanding problems that ranked “● strong” impact included the interactive problems of “*environmental contamination versus stakeholders’ conflicting interests & objectives*” and “*difficulty of developing future planning vision due to multiple-component complexity and stakeholders’ multiplicity & varying views.*” While the problems that ranked “▲-● moderate-strong” impact included the interactive problems of “*environmental contamination versus project economic feasibility & marketability*” and “*difficulty of integrating multiple planning processes*”.

All selected policy directions/guidelines ranked relatively high impact “●-■ strong-very strong”, which indicate that they are significant and consistent with the impact evaluation of problems of complexity and interactive context.

Exhibit 7.14: Impact Levels of Problems & Policy Directions: Overall Planning Process – PCD			
Level of Impact	Problems and Issues		Policy Directions
Strong – V. Strong	●-■		<ul style="list-style-type: none"> ● Commitment to planning especially in dealing with large sites. ● Having a clear vision for the project. ● Adopting an integrative planning framework to link the major planning sub-processes.
Strong	●	<ul style="list-style-type: none"> ● Complex & interactive problems: environmental contamination risks & liabilities vs. stakeholders’ conflicting interests & objectives. ● Difficulty of establishing future site redev. vision due to multiple-component problem complexity & 	

³³⁹ Interview with the former project planner at TEDCO (Key Participants’ Interviews, 2000).

³⁴⁰ Interviews with the former CEO at TEDCO and former City Urban Development Commissioner (Key Participants’ Interviews, 2000).

³⁴¹ See Appendix A7.1 and Appendix A7.2 for an outline of responses from Key Participants on the structured interview questionnaire. Impact evaluation of the overall planning process included a response rate of 73% for problems impact and 86% for policy directions out of the total number of actual questions for this component.

		due to stakeholders' multiplicity & varying views.	
Moderate-Strong	▲-●	<ul style="list-style-type: none"> • Complex & interactive problems: environmental contamination risks/liabilities vs. economic feasibility & marketability. • Difficulty of integrating multiple planning processes including: site remediation, physical planning & design, financial planning & marketing & stakeholders' consensus & partnerships. 	
Moderate	▲	<ul style="list-style-type: none"> • Complex & interactive problems: environmental contamination risks & liabilities vs. physical-functional declining image & blight. 	
Weak	□	<ul style="list-style-type: none"> • Complex & interactive problems: environmental contamination risks & liabilities vs. social equity & security issues 	
Overall Ave.		Moderate-Strong (▲-●)	Strong-Very Strong (●-■)

7.4 CASE STUDY FINDINGS, Planning Sub-processes and Their Connectivities - PCD

The analysis of case study findings is based on the eight research units of analysis outlined in Chapter Five. Every unit of analysis will include a synthesis of the planning sub-process and connectivities among components and planning sub-processes,

7.4.1 Environmental-Legal Component: Site Remediation Planning Sub-process

TEDCO had a general environmental framework for Soil and Ground Water strategy which included a macro-level *Area Wide Initiative (AWI)* and a micro-level individual *Site Management Initiative (SMI)*. The macro-micro environmental framework for soil and ground water strategy was a good planning approach in terms of monitoring environmental conditions at both levels.

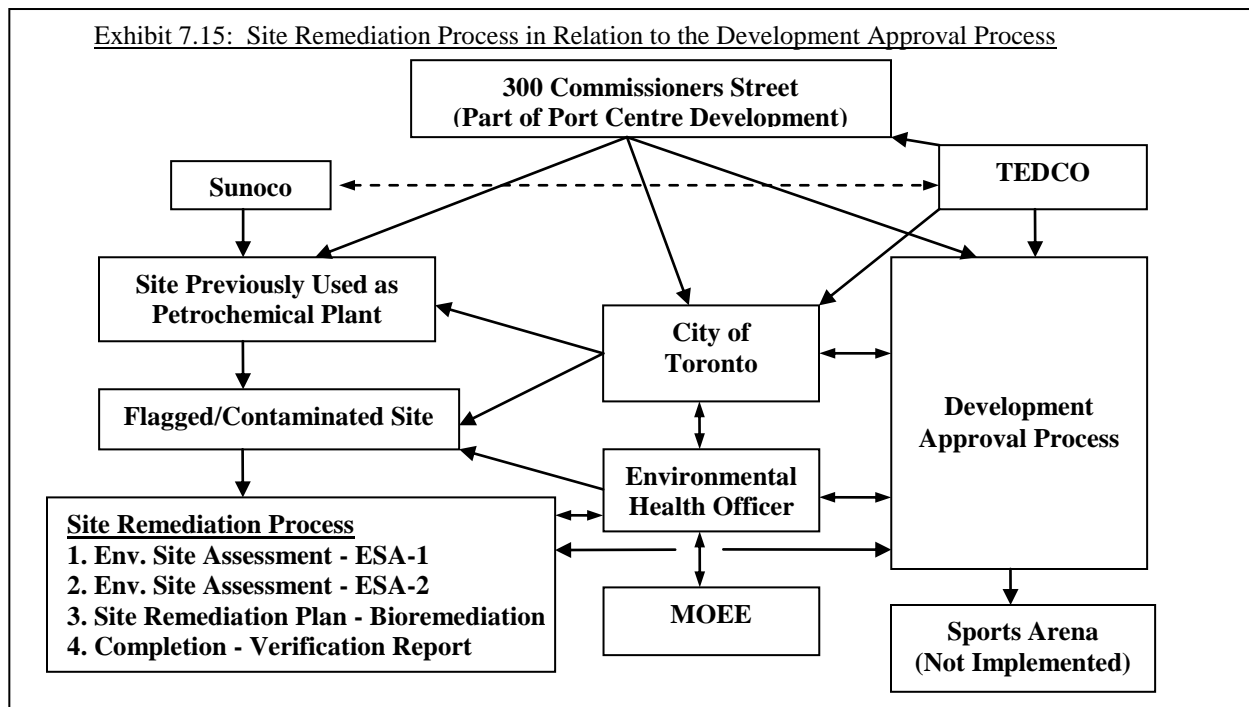
Site contamination was acknowledged in the Port Area in general including the PCD project site. There was no comprehensive site assessment and site remediation plan for the PCD project. TEDCO managed to retrieve cost of site remediation from previous users/polluters. Environmental site assessment and remediation was performed at an individual site (300 Commissioners Street), previously used by Sunoco company. Also, environmental site assessment was performed for the three sites previously used by Imperial Oil for the purpose of estimating the cost of site remediation. However, implementation of a site remediation plan was not performed at these three sites because the PCD project was not approved by the City. Imperial Oil agreed to sell the two properties (it owned) to TEDCO and to compensate the cost of site remediation for the three properties in exchange of legal liability transfer to TEDCO.³⁴²

Site Remediation at 300 Commissioners Street (Previously Leased/Used by Sunoco)

³⁴² The amount of compensation to cover site remediation cost exceeded real estate value of the sites by three times (Interview with the former project planner at TEDCO, 2000).

The Site remediation process at 300 Commissioners Street was part of the site plan approval process to obtain the building permit (Exhibit 7.15). Site remediation was performed by the previous user of the site (Sunoco) since they were legally liable for site contamination and was based on an agreement with TEDCO. The environmental process included the following:

1. Initial Site Assessment - Level One: To define potential sources of contamination
2. Detailed Site Assessment - Level Two:
 - To define types and levels of contamination and comparison with selected criteria
 - To perform risk assessment and define risk management
 - Risk management may include land use control or engineering solutions
3. Site Remedial Work Plan
4. Project Implementation
5. Completion - Verification Report



The site remediation plan included bioremediation of the contaminated soils within the site and employed land use controls and engineering solutions. Site remediation was based on clean-up criteria for industrial and commercial land uses. In addition, an engineering solution was designed to use an impermeable liner to contain the soil for bioremediation. The impermeable solution was left in place to restrict migration of contaminants from adjacent sites that were also flagged. Since the process was proponent driven, the MOE did not require Record of Site Condition (RSC). Site remediation was completed and verified by the Environmental Health Office at the City and a copy of the verification report was sent to MOE.

Connectivities/Linkages within the Environmental Site Remediation Sub-process:

Some of the main strong linkages between this component and other component are as follow:

- Site Remediation Cost versus Future Land Use
- Site Contamination/Remediation versus Cost of Clean-up and Property Price
- Site Contamination within the Site Vs. Environmental Conditions of Surrounding Areas
- Site Contamination & Remediation Cost versus Future Land Use (Environmental-

Economic-Physical-Functional): The site remediation plan was based on clean-up criteria for industrial and commercial use only, which implied less stringent and less costly clean-up process than compliance with residential criteria for clean-up. This factor also contributed to the exclusion of the residential use from this project.³⁴³

- Site Contamination and Remediation Cost versus Property Price (Environmental-Economic): Site contamination resulted in costs associated with site remediation in addition to the pertinent approval process. Also, existing site contamination affected prices for such properties before performing site clean-up.³⁴⁴ This issue was also linked with the legal liabilities of site contamination, which included real and perceived liabilities.

- Within Site Contamination/Remediation versus Surrounding Environmental Conditions (Environmental-Environmental): Site contamination within the project area was affected and had an effect on the environmental conditions of surrounding areas because of potential migration of contaminants. There was known migration of contaminants in the north-south direction. After site remediation (at 300 Commissioners Street), the decision was to keep in place the impermeable liner (used during the bioremediation process) in order to prevent migration of contaminants between the cleaned-up site and surrounding areas that were contaminated.

An important conclusion is that the linkages outlined above formed multiple chain linkages among them like Site Contamination/Remediation – Legal Liabilities – Clean-up Cost and Site Contamination/Remediation Cost - Future Land Use - MOE requirements.

7.4.2 Physical-Functional Component: Physical-Functional Planning Sub-process Land Use Planning, Site Subdivision Planning, Urban Design & Architecture

This component represented the core and physical context for all other components. The physical-functional planning process was exemplified at several interrelated and hierarchical spatial levels including the City Official Plan level, Port Area district level, PCD project site level, in addition

³⁴³ Site remediation was based on clean-up criteria for commercial and industrial use (MOE Guidelines, 1994).

³⁴⁴ In the case of properties previously owned and used by Imperial Oil, cost of site remediation was more than real estate value resulting in a negative value land (Interview with former CEO of TEDCO, 2000).

to the project site subdivision level. Also, physical-functional planning included various interrelated hierarchical planning types including land use planning, urban design, and smaller area site plan architectural level. The contextual applications of these planning types were also related to the physical scale of the pertinent area of application, as well as the level of required information for each level (Exhibit 7.16).

Exhibit 7.16: Physical Levels of the Planning Process and Their Contextual Application – PCD			
	Planning & Design at various Physical Contextual Levels	Case Study Contextual Application	Government Plans Regulatory/ Legal Basis
1.	Land Use Planning - City Level - District Level	<ul style="list-style-type: none"> • Official Plan Amendment. • Rezoning • Port Area District Plan Amendment 	<ul style="list-style-type: none"> • Planning Act • Official Plan. • District Plan • Zoning By-laws
2.	Urban Design - City Districts - Port Area District - Port Centre Project	<ul style="list-style-type: none"> • Port Area District. (overall site) • Urban Design Plan for the Port Centre which illustrates possible physical configuration. • Urban Design Guidelines and Principles for the Port Area in general and for the Port Centre Development project including block specific guidelines. • The Green/Open Space Infrastructure System for the overall Port Area and the Port Centre • Site scale guidelines which address design principles and objectives for the Port Centre. 	
3.	Architectural Design - Smaller Site Area	<ul style="list-style-type: none"> • Potential Site Plan approval for individual sites within the overall project. 	<ul style="list-style-type: none"> • Building Code.

The physical-functional theme for the PCD project, including warehouse retail (Costco and Knob Hill Farms) and sports arena complex, was predominantly biased toward economic development criteria (financial profit, tax revenue, job generation) rather than on multiple component criteria including physical-functional, social, political, and environmental criteria. Also, the proposed project was primarily emphasizing the specific project site without proper consideration of the overall Port Area. Even though the proposed functional theme was consistent with TEDCO’s mandate for economic development, there were conflicts with City vision for the future of the Port Area as a social place that was becoming more people’s friendly, environmentally friendly, and more pedestrian and cyclists’ movement than automobile movement. Also, there was conflict with local business groups because they saw the proposed project as a threat to their own businesses. In addition, the project was perceived as more like a suburban mall rather than an urban functional setting.

Furthermore, the proposed PCD project was based on a single alternative functional complex including commercial and industrial uses without considering other alternative options for comparative evaluation. Given that the Port Area was becoming more as an extension of the

adjacent waterfront and inner city areas, one potential functional theme to be considered for comparative evaluation, would be a mixed-use complex including residential, offices, commercial, and related recreational facilities. This option would have the potential for a lively, social, walkable, and environmentally sensitive setting. It is important to note that both the inner city and the Port Area are in the process of functional transformation and to target the vision for the future century rather than following the existing industrial pattern within the “Port Industrial District” that evolved over the past century, which is currently becoming functionally obsolete.

Connectivities/Linkages in the Physical-Functional Planning Sub-process

The linkages between the physical-functional component and the environmental component were discussed in the previous section.³⁴⁵ The main linkages with the other components were as follow:

- Port Centre Site Functions versus Surrounding Land Use Functions
- Distribution of Land Use Functions versus Market Analysis and Economic Feasibility
- Land Use Functions versus Transportation Access
- Land use functions versus Stakeholders’ Interests and Objectives.
- Port Centre Project Site versus Surrounding Land Uses/Neighborhoods (Physical-

Physical): There were some attempts for integration between the project site and its interface with the surrounding land use functions including residential communities. The idea of making street connections to the adjacent community on the north side was a form of physical integration. Also, the extension of the green/open space along the Don Valley Trail Link all the way to the waterfront was a form of connecting the PCD site with areas along that axis. These connectivities were more within the physical setting rather than the functional and social settings. In general, there was lack of concurrent comprehensive planning vision for the entire Port Area in order to properly integrate micro-level project planning with the macro-level Port Area planning, as well as integration with the adjacent inner city communities.³⁴⁶ This integration should address multiple components including land use compatibility, movement systems and walkability, social interaction and context, economic viability, and environmental connectivity and integrity.

- Distribution and Size of Land Use Functions versus Market Analysis & Economic Feasibility (Physical-Economic-Functional): Market economic feasibility analysis addresses the needed size and location of commercial/business centres. The objective of the economic market

³⁴⁵ Linkages between the physical-functional component and the environmental component included “*Site Contamination & Remediation Cost versus Future Land Use (Environmental-Economic-Physical-Functional)*”.

³⁴⁶ The lack of shared comprehensive vision for the Portlands created conflict between TEDCO that was following its mandate and the City who had a different vision but was not clearly formulated and conveyed to TEDCO (Interview with the former CEO at TEDCO and former City Commissioner for Urban Development, 2000).

analysis for the warehouse type retail functions, performed by the private developer for TEDCO and requested by the City, was both to ensure the feasibility for the project retail functions as well as ensuring that the new development would not compete with the existing retail. There was concern by the City and local business groups that the new development was like a suburban mall that would compete with existing small retail business.³⁴⁷

- Land Use Functions versus Transportation Network and Access: The existing transportation network around the project site, as well as the proposed network within the site, were important in the physical-functional structuring of the project site. The PCD project is located at a major intersection of two expressways, mainly the Gardiner Expressway and the Don Valley Parkway. This location provides both proper accessibility and visibility of the new functions, which was an important factor for commercial/business functions. The overall project site was already subdivided into smaller sites by existing streets. The location of the major wholesale retail function (Costco) was at the site corner. Also, the idea of continuing the Don River Trail and movement system to the waterfront resulted in a green zone abutting the new development which would affect land use design within the project site.

- Proposed Land Use Functions versus Stakeholders' Interests & Objectives (Physical-Functional-Political): There was a conflict of vision and objectives among stakeholders regarding the proposed functional theme for PCD. TEDCO was following its mandate of economic growth when they proposed the “Big Box” commercial and industrial functions for the project. The City was more concerned about the future vision for the Portlands. Also, the City was concerned about the impact of new development on existing retail market in the inner city as well as traffic impact. The local business groups were more concerned about the potential negative impact of the new development with large scale retail functions on their small scale retail businesses.³⁴⁸ Local residents would like to see the blighted area redeveloped and to have better environment and access to the waterfront area. However local residents were also concerned about negative impact on local businesses as well as traffic impact.

This outline clearly indicates conflicting interests and objectives between TEDCO and other main stakeholders' in terms of priority for economic feasibility and project marketability

³⁴⁷ Interviews with representatives of local community groups, City Commissioner, TEDCO's former CEO and former project planner (Key Participants' Interviews, 2000).

³⁴⁸ The perception of the new development was like having a suburban mall within the inner city (Key Participants' Interviews, 2000).

versus a clean and sustainable environment that would be integrated with city existing physical-functional setting including accessibility to the waterfront.

7.4.3 Economic Component and Planning Sub-process: *Financial Planning & Marketing*

Project financial planning and marketing was primarily performed by the project developer TEDCO, which was self-funded.³⁴⁹ Start-up funding was not a problem for TEDCO, especially when environmental clean-up cost was covered by the previous users/polluters of individual sites like Sunoco and Imperial Oil. TEDCO also managed to secure potential investors in the beginning of the process like Costco and Knob Hill Farms. TEDCO would lease individual sites to potential investors who would be responsible for financing actual site development. According to TEDCO, the project was considered as economically feasible.

Connectivities/Linkages in the Economic Planning Sub-process

The links between the economic component versus the physical and environmental components were previously outlined.³⁵⁰ The other linkages between economic planning component versus the other planning sub-processes include the following:

- Cost of Site Remediation versus Stakeholders Decisions & Project Feasibility
- Project Marketability to Potential Users/Investors versus Approval by the City and Local Business Groups
- Financial Feasibility versus Overall Project Feasibility and Viability
- Cost of Site Remediation versus Stakeholders Decisions & Project Feasibility: Cost of

site remediation can affect project feasibility, especially project initiation, and hence can affect the decisions of stakeholders. This issue was also interlinked with the proposed future land use and stakeholders perception for contaminated areas. In the case of the sites used by Imperial Oil, the cost of site remediation was greater than the value of the land after environmental clean-up, which indicated a negative value land. The fact that cost of site remediation was paid by the previous users made the first redevelopment phase of project initiation and site remediation financially feasible for the developer TEDCO. This condition provided a positive perception for marketing the project.

³⁴⁹ TEDCO was quasi-public but has the structure of a private development corporation with share holders. TEDCO had the decision making power as a separate entity from the City. However, the City owned TEDCO and had 3 Council members at TEDCO Board (Key Participants' Interviews, 2000).

³⁵⁰ The linkages between the economic component and physical and environmental components included:

- Site Remediation Cost versus Future Land Use (Environmental-Economic-Physical)
- Contamination and Remediation Cost versus Property Price (Environmental-Economic)
- Market Analysis & Economic Feasibility versus Distribution of Land Use Functions

- Project Marketability to Potential Investors versus Approval by the City & other Stakeholders: TEDCO managed to market the project to potential investors for warehouse type retail functions (like Costco and Knob Hill Farms) as well as for a sports arena complex. However, TEDCO could not get approval from the City on the overall project. Also, the local community and small business groups were in opposition to the project. This indicates that it is not enough to succeed in marketing the project to potential investors but to have project acceptability by the City approval authority and the local community.

- Financial Feasibility versus Overall Project Feasibility and viability: TEDCO focused on economic/financial feasibility and marketability of the project more than overall project feasibility and viability. The feasibility framework did not include the physical-functional alternative options for comparison with the PCD project. Furthermore, TEDCO's vision for the Port Area was to maintain the industrial use as in the original City Official Plan with an addition of warehouse retail commercial as an exclusive amendment to the Official Plan. This was basically triggered by TEDCO's mandate and primary objective as an "Economic Development Corporation," which was business-based approach to planning. TEDCO had the vision to keep the waterfront area as an environmental open space and recreational area; however this would be difficult to sustain when the Port Area was envisioned as an industrial commercial district. TEDCO excluded mixed-use alternatives with the residential and office functions. This planning vision had conflicts with City vision for the Port Area.³⁵¹

7.4.4 Social Component – Social Planning Sub-process - PCD

This component addresses social problems, issues and objectives in terms of social equity, safe community, and the provision of social and community services and amenities. There was no specific social planning sub-process as part of the overall development process. However, the process included several social and socio-economic objectives including the following:

- Transforming the vacant contaminated site that was associated with stigma into an active and self secured area. There were safety concerns especially at night.
- Provision of social/recreational open space amenities to be connected with the waterfront.
- Providing connective links between the Port Area and neighbouring residential communities to the north.
- Creation of new job opportunities with recommendation for securing accessibility of local residents to newly generated jobs.

³⁵¹ In a later publication titled "*Unlocking Toronto's Port Lands, Directions for the Future, July 1999*", the City of Toronto Urban Planning & Development Services had also included the residential and the office functions as part of their mixed land use vision for the Port Area. The residential function was proposed in areas outside the PCD.

- Increasing property assessments and municipal tax base.

In addition, the review process included public participation in the form of project presentations at neighbouring communities and local residents had the chance to express their visions for the area. The residential communities had been only on the bordering areas to the north and on the other side of the Gardiner Expressway. The proposed plan included connective links between the Port Area and neighbouring residential communities. However, the Port Area was not clearly conceived as a community by itself. The proposed “Big Box” project was perceived as a suburban type development that was inappropriate for an inner city context, especially near a waterfront area. In conclusion, the social context was in a way ignored as an integral component of the overall planning process with the exception of providing certain social and socio-economic objectives.

Connectivities/Linkages in the Social Planning Sub-process - PCD

The main connective links between the social planning component and other components included the following:

- Open Space/Environmental Context versus the Social Context
- Project Site and Port Area versus Surrounding Communities
- Open Space/Environmental Context versus the Social Context: The open space/environmental and pedestrian/trail system was a connective network between the project site, the waterfront and the Port Area in general, as well as with the Don Valley open space and pedestrian trail system. This public open space connective network could be more properly utilized as a positive social space, if supported by pedestrian oriented functional-physical development instead of the proposed car oriented “Big Box” development.
- Social Context of Project Site and Port Area versus Surrounding Areas and Communities of the Inner City: The functional land use theme within the project site and the Port Area in general, had been predominantly industrial and port related functions and currently referred to as the “*Port Industrial District*”. However, the waterfront area had been an environmental open space and potential social recreational space. This contrasted land use combination represented an incompatibility and conflict resulting in negative impact on both the social and environmental contexts of the Port Area including the waterfront. Anyway, the social context of the Port Area was not clearly defined throughout its historical evolution.

The Gardiner Expressway and the industrial Port Area formed a land use separation and barrier between the neighbouring residential communities and inner city areas on one side and the

potential waterfront social and recreational space on the other side. Accordingly, it would make sense to create connections between the social context within the project and the Port Area in general with the surrounding residential communities. Furthermore, proximity of the Port Area to the inner city should make it as an integral part in terms of functional land use and social context.

The Port Area lacked a clear definition for the evolving land use and social contexts which made the connection between the project site and the overall Port Area difficult to define as well. This lack of clear and consistent definition of land use and social contexts created conflict of vision between TEDCO and the City in terms of the proposed functions for the PCD project and its relation to the future vision for the Port Area.

7.4.5 Political Component – Political Organizational Planning Sub-process – PCD Stakeholders’ Organization and Partnership

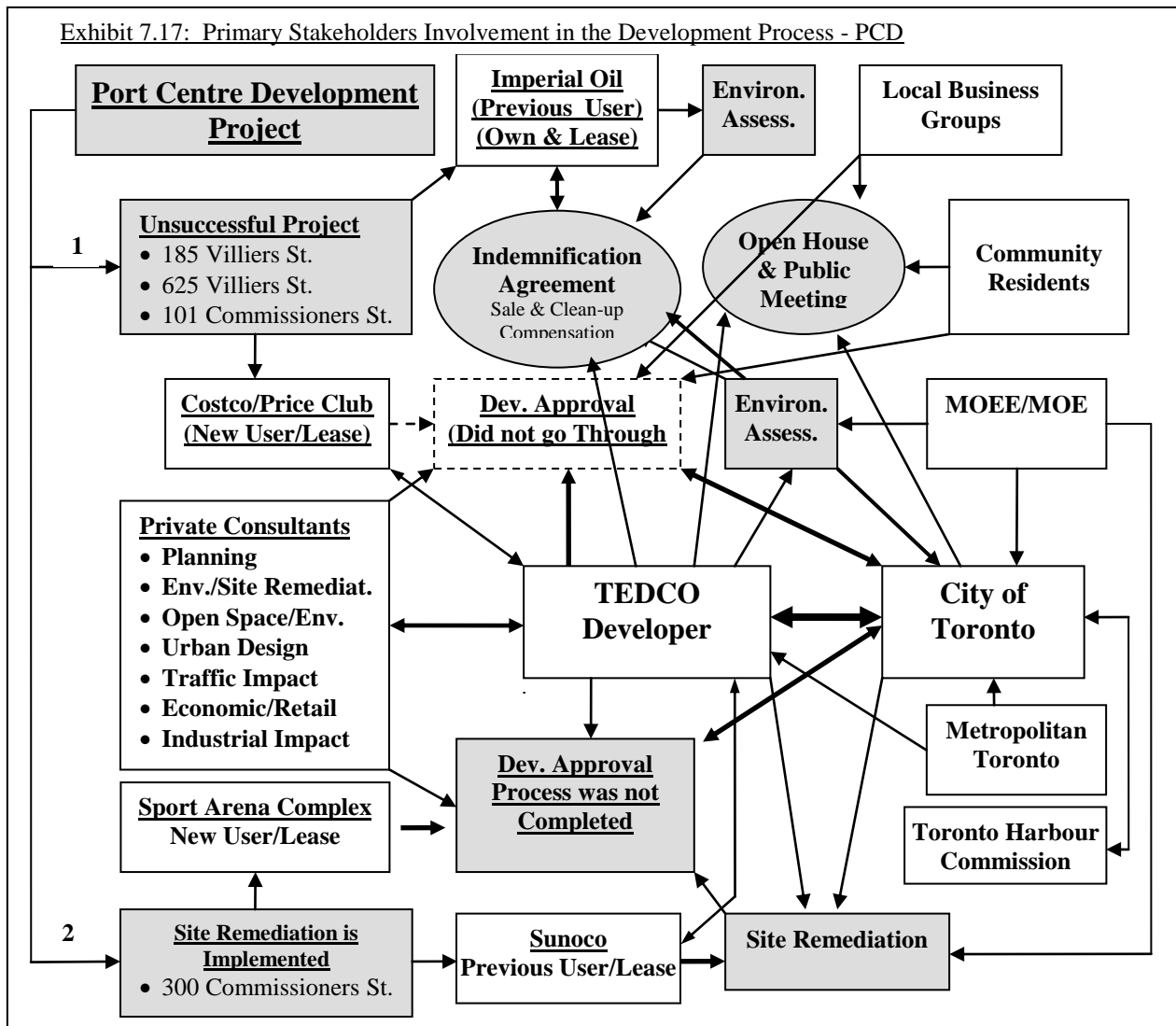
The main stakeholders’ in the planning process were primarily represented by the project developer TEDCO – a quasi-public development corporation and their team, the public sector approval authorities mainly the City of Toronto and MOE, in addition to community residents and interest groups.³⁵² The development approval process, including environmental approval, represented the organizational set-up for the overall planning process that was partly performed by applicant/developer TEDCO and their team of private consultants on one side and the City and related bodies as an approval authority on the other side. In addition, the local community residents and interest groups were involved in public meetings and open houses that were primarily arranged by TEDCO and partly by the City to review the project. In this case, the City of Toronto was both the development approval authority as well as the owner of TEDCO.³⁵³ Exhibit 7.17 outlines the primary stakeholders involved in the planning process.

The stakeholders within the private sector included previous users/owners of certain properties within the project site (Sunoco and Imperial Oil), the new potential investors/users in the proposed PCD project, local business groups who were potentially impacted by the new development, and private consultants commissioned by TEDCO for special planning studies.³⁵⁴

³⁵² The primary stakeholders in the public sector included: 1. TEDCO the developer (quasi-public), 2. City of Toronto, the development approval authority and owner of TEDCO, 3. Metropolitan Toronto, for review of the new proposed development, 4. Ministry of the Environment (MOE): for general monitoring of site remediation, 5. Toronto Port Authority, previous owner of the Port Area before property transfer to the City and TEDCO.

³⁵³ Even though TEDCO was self-financed and had its own Board and administrative structure, the City of Toronto had the power of appointing TEDCO Board members who included representatives from business, labour, and City Council (TEDCO, 1996, Annual Report).

³⁵⁴ The private sector stakeholders included: 1. Previous users/owners of specific sites in the Port Centre including Imperial Oil and Sunoco, 2. Potential Users/Owners in the Project including Costco/Price Club, Knob Hill Farms,



There were several conflicts of objectives and vision among stakeholders regarding the project which contributed to project failure. The main conflicts included the following:

1. TEDCO versus the City of Toronto: TEDCO's vision for a "Big Box" warehouse type retail commercial and industrial development project was basically following its mandate as an "Economic Development Corporation" aiming at achieving economic objectives in terms of financial profit, job generation and increasing tax base. The City did not envision the proposed

and other business interests. Also included are existing businesses including Chai Poultry, Greyhound, and Addison Cadillac, 3. Local Business and Interest Groups: • Greater Riverdale Economic Development Group (GREAT), • Port Area Businesses and Real Estate Interests, • Retail Interests including Yonge Regeneration Program and Gerrard Square Representatives, • Interest groups concerned about open space & environmental issues in the Port Area, including Don River Task Force, City Recycling Committee, the Waterfront Regeneration Trust, & Friends of Leslie St. Spit, 4. Private Consultants retained by TEDCO to prepare the following studies: Planning, Economic/Retail Impact Study, Industrial Impact Study, Open Space/Environment Study, Urban Design and traffic Impact Study, Environmental Site Assessment and Remediation, and Environmental Consultants (TEDCO, 1996).

“Big Box” development as appropriate for the project site as well as for the future vision for the Portlands. The City’s vision for the Portlands was to have intensive development that is more people oriented, less cars and more pedestrian/cyclist oriented, as well as more environmentally friendly, especially its proximity to the waterfront. Also, the City realized the negative impacts of the proposed project on local small businesses and on traffic. In addition, the City disagreed with TEDCO on the piecemeal approach for redevelopment of the Portlands and would prefer having an updated overall master planning vision to guide development of the Portlands.³⁵⁵

Given the relationship between the City of Toronto and TEDCO with City Councilors on TEDCO’s Board, this should have been utilized in a positive collaboration and partnership between them in developing an agreed on vision for both the Port Area and the PCD project to resolve the conflict.³⁵⁶ However, they functioned as opponents in this project. Even though the PCD project was voted for at TEDCO’s Board, it was not approved at City Council.³⁵⁷

2. TEDCO versus Local Business Groups: The local business retail groups were in opposition to the proposed “Big-Box” project because of the perceived negative impact on their retail business market. This indicates that TEDCO was not successful in properly involving these interest groups and addressing their opinion in the process. This was a critical factor, especially when both the City and local community residents supported local business groups.

3. TEDCO versus Community Residents: The residents of neighbouring residential communities were also in opposition to the PCD project because of conflict of vision for the area and negative impact of the proposed “Big Box” development on local businesses and increased auto traffic. The community vision for the Port Area was more toward environmentally friendly project with green growth and jobs. Also community residents perceived the planning process as lacking proper community involvement and TEDCO’s public meetings were only to inform the community to gain their support for the project rather than to incorporate community views.³⁵⁸

Given the above outline, it is important to note that TEDCO’s objective as primarily “Economic” was inconsistent with its role as a development corporation that should

³⁵⁵ Interview with the former City Commissioner for Urban Development (Key Participants Interviews, 2000).

³⁵⁶ Since there was no Part Two Official Plan for the overall Port Industrial District, it would make more sense for the City to prepare one to work interactively with the micro-level plan for the PCD project. In the case of the G&W project, the City of Toronto collaborated with the private developer and updated a Secondary Plan for the King-Parliament area to allow for proper review of project approval (See Chapter Six, G&W Project).

³⁵⁷ It was strange to have the same member at TEDCO Board and at City Council expressing different voting/opinion on the project when representing each side (Key Participant’s Interviews, 2000).

³⁵⁸ Interview with local community residents (Key Participants’ Interviews, 2000).

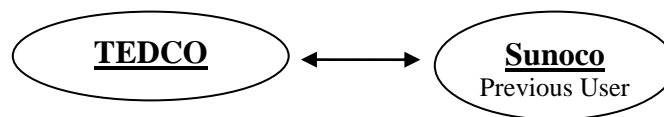
simultaneously address a broader set of components and objectives in addition to the economic, including the physical-functional, environmental, social, and political objectives. This economic bias created an imbalance among the various objectives and consequently resulted in political conflict of interest and vision. In addition, collaboration between the City and TEDCO to achieve a collective planning vision would have created a better environment to include the local business groups, local community residents, and other stakeholders in the planning process.

Connectivities/Linkages in the Political-Organizational Planning Sub-process

Some of the linkages within the political component were discussed in the previous sections.³⁵⁹

The other main linkages were in the form of agreements among stakeholders including:

1. Site Remediation Agreement (TEDCO-Sunoco): This was for the site at 300 Commissioners Street. The previous user/polluter Sunoco who had leased the land from TEDCO was liable for site contamination and accordingly agreed to perform site remediation themselves. TEDCO was successful in retrieving cost of site remediation for this specific property site.



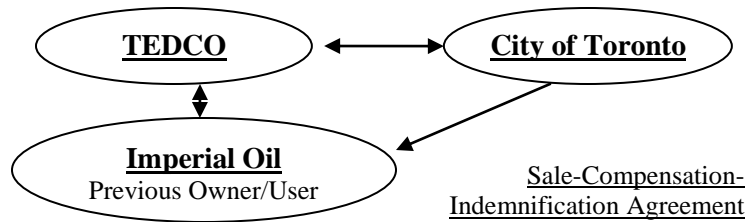
Site Remediation Agreement

2. Sale-Compensation-Indemnification Agreement (TEDCO-Imperial Oil-City): The previous user/owner (Imperial Oil) of the sites at 185 & 625 Villiers Street and 101 Commissioners Street, agreed to sell TEDCO the two sites that they owned at current market price. Also, Imperial Oil agreed to compensate TEDCO with the cost of environmental site remediation for the three sites that they previously used, provided that the City of Toronto and TEDCO would indemnify Imperial Oil from current and future liability for site contamination.³⁶⁰ The agreement was approved and executed by all parties.³⁶¹ TEDCO managed to gain ownership of land as well as retrieving cost of site remediation.

³⁵⁹ These were outlined in the previous components including: • Land use functions versus Stakeholders’ Interests and Objectives, • Cost of Site Remediation versus Stakeholders’ Decisions on Project Feasibility, • TEDCO, City and Community objectives versus perception of a contaminated site.

³⁶⁰ As mentioned by the former planner at TEDCO, the estimated cost of site remediation (for land sale), was three times more than the real estate value of the land after clean-up (Key Participants’ Interviews, 2000).

³⁶¹ The PCD project included a whole sale retail functions (Costco and Knob Hill Farms) on the mentioned sites. The proposed functions were not approved by the City. However, the agreement between Imperial Oil, TEDCO, and the City was executed. The estimated cost of site remediation was higher than the estimated/ current market value of the sites (negative value land). TEDCO received the net monetary difference, but actual site remediation was not performed for the mentioned sites at the time when the case study field interviews were performed.



3. TEDCO – Costco (Public-Private): TEDCO managed to arrange the land lease agreement with Costco in advance and during the planning process. However, the project was not approved.

4. MOE – City of Toronto – TEDCO (Public-Public): This was the memorandum of understanding regarding the site remediation process at the Portlands.

7.4.6 Project Implementation Planning - Phasing and Stakeholders’ Responsibility– PCD

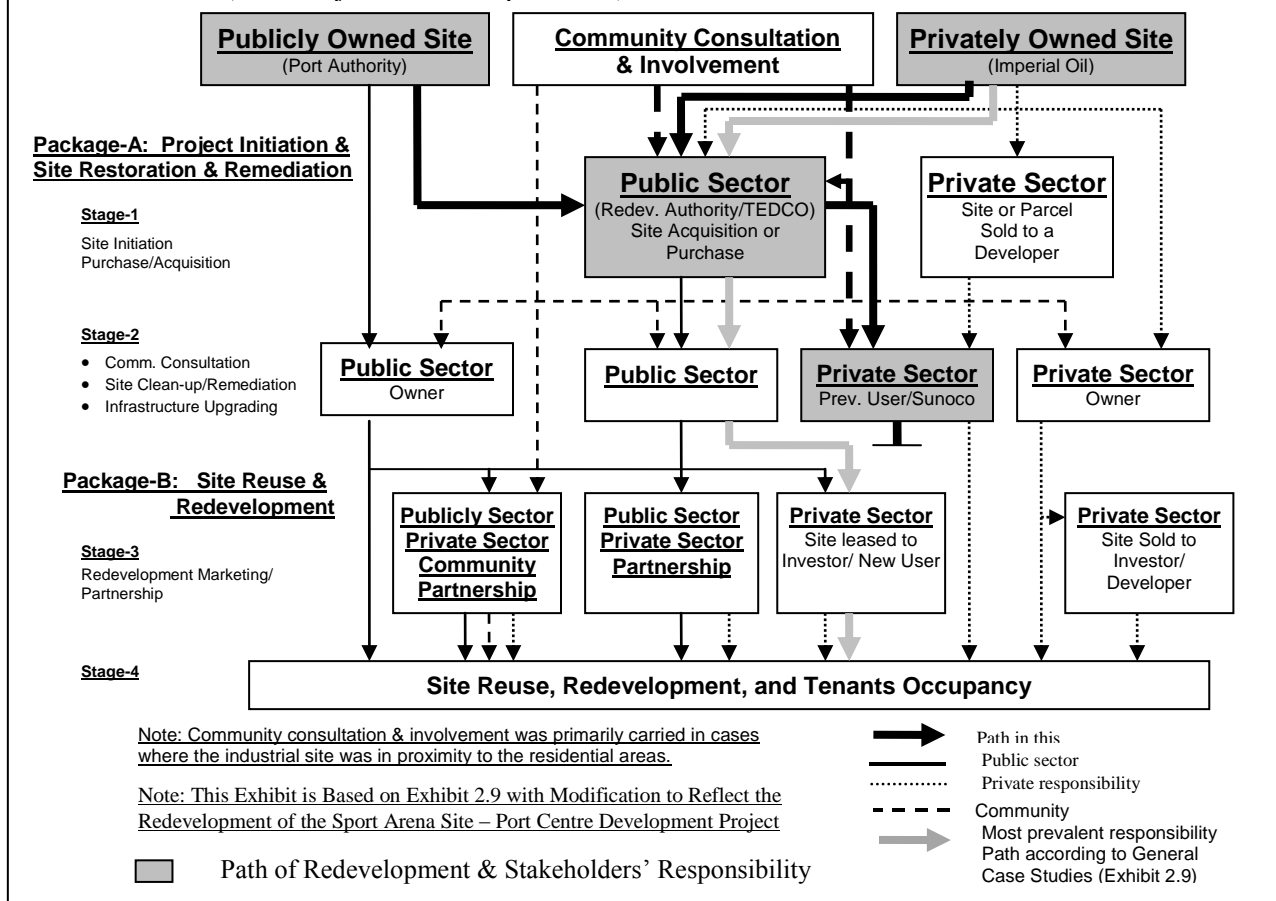
The overall PCD project was not implemented. However, site environmental assessment and remediation was performed by the previous user/polluter (Sunoco) on a site subdivision at 300 Commissioners Street and as part of an agreement with TEDCO. Also, site environmental assessment was performed on the three properties previously used by Imperial Oil in order to estimate the cost of site remediation that they were liable for. This was part of the sale agreement between Imperial Oil and TEDCO. Even though environmental remediation was performed on a portion of the site, the development of the project was not approved (Exhibit 7.18).

7.4.7 Key Policy Direction – Tax Increment Financing as a Tool for Site Remediation

The objective is to evaluate whether future tax increments can potentially finance the cost of site remediation. Based on key participants’ interview responses, “developing self-financing mechanism (like TIF/TIEF)” to finance cost of site remediation ranked “Strong-very Strong” impact (Exhibit 7.14). In addition, and as perceived by key participants in the process, the new site redevelopment had a “Strong-very Strong” impact on both property values and taxes of the redeveloped site as well as surrounding properties. Considering the positive future tax increments on the project site redevelopment and surrounding properties, the cost of site remediation could be covered within 10-15 years as perceived by key participants. This is relatively reasonable period of time, given the long term context for city management. As perceived by key participants, the main barrier facing the establishment of a TIF/TIEF program within the Canadian context was “Institutional or Organizational Factors” that rated “very Strong” impact. The above outline indicates that a TIF/TIEF policy direction has a potential for application in the Canadian context provided that institutional barriers are resolved.

Exhibit 7.18: Blighted/Contaminated Site Reuse and Redevelopment Process – Implementation Packages/Stages Outlining Distribution of Stakeholders’ Responsibility - PCD

(Note: Project Was not Implemented)



7.4.8 Overall Multiple Component Planning Process – PCD

Planning of the PCD Project was primarily controlled by TEDCO as the project developer and regulated by the City of Toronto as the approval authority. The PCD project was not successful even though there were several favourable conditions for redevelopment including:

- Prime site location in proximity to the inner city, main expressways, and the waterfront.
- TEDCO was a specialized development corporation that was financially independent and with a mandate to revitalize its properties within the Port Area.
- TEDCO managed to retrieve cost of site remediation from previous users/polluters.
- TEDCO managed to market the project to potential investors in advance.

However, there were several factors that caused failure of the PCD project including:

- Lack of collaboration and partnership between TEDCO and the City.
- Lack of proper community involvement in the project as viewed by local residents.
- Conflicting objectives, interest, and vision between TEDCO and the City as well as with the local community and small business groups.

- Lack of clear planning vision for the Port Area as a whole and its relation to the PCD.
- Bias of TEDCO's mandate toward achieving economic objectives which is inconsistent with its overall responsibility as a development corporation that should address all development issues including physical, environmental, social & political objectives.

The conflict of vision between the micro-level PCD project and the macro-level Port Area was the central issue of stakeholders' conflict. The existing Port Industrial District was evolving into a complex problem context, especially being a waterfront area as well as an extension of the inner city. The existing land use context posed conflicting compatibility issues between the sensitive waterfront open space and park functions vis-à-vis the remaining heavy industrial functions and the vacant/underutilized sites that had been inflicted with environmental contamination. In addition, the Port Area, including its waterfront appeared to be isolated from the inner city and nearby residential community, especially with the Gardiner Expressway and Lakeshore Boulevard as physical barrier.

Characteristics of the Overall Planning Process – Port Centre Development

The overall planning process can be characterized as follows:

1. **Multiple-Component Context and Planning Sub-processes:** The overall planning process included the following main planning sub-processes:

- **Physical-Functional Planning Sub-process:** This included land use planning and urban design studies that were primarily for the PCD project and partly the overall Port Area. This sub-process also included review of the City Official Plan and Zoning By-laws, studies for traffic impact resulting from the PCD project, and industrial impact study. The central objective and outcome of these planning studies were primarily the physical-functional setting.

- **Environmental Planning Sub-process:** This included site remediation planning at the project and Port Area levels, as well as general open space-environmental studies.

- **Financial planning** and economic retail market studies.

- **Social Planning Sub-process** was marginally represented in terms of achieving social and socio-economic objectives.

- **Political Planning Sub-process:** Even though the project was not approved, this planning sub-process was primarily exemplified in the public approval process and the interactive setting among the Developer/TEDCO, the City approval authority, and local community residents and interest groups. TEDCO-City organizational relationship was an important aspect of the political process that was not positively utilized as a real partnership. Also, public meetings were part of this sub-process where TEDCO-Community and TEDCO-Business groups interactive communication should have resolved the conflicts among them.

2. **Interactive Problem Context and Planning Sub-processes:** Each component planning sub-process had a level of impact on the other planning sub-processes. Site remediation planning and clean-up criteria were according to industrial and commercial land use functions. Type of

land use functions (warehouse type retail) are directly related to financial feasibility and marketability. Stakeholders' conflicts and lack of consensus among stakeholders on a clear planning vision for the PCD project and the Port Area were critical interactive issues between politics, economic feasibility and market studies, as well as land use future vision.

3. Lack of balance and Integration among Planning Sub-processes: Planning sub-processes were not properly balanced in terms of representation and not well integrated in the overall planning process. The economic planning sub-process was predominant among other sub-processes and the physical-functional sub-process was primarily based on economic objectives. The social context of planning was not properly addressed and marginalized to achieving few social and socio-economic objectives. The environmental planning sub-process was reduced to site remediation planning and the overall context of environmental planning, including the waterfront, had been in continuous conflict with the industrial nature of the Port Area. The political sub-process was fragmented, resulting into stakeholders' conflicts. It also lacked proper stakeholders' collaboration and partnership (City-TEDCO-Community).

4. Multi-Level Physical Planning Process: The planning process was represented at various physical-functional levels including land use official plans at City and Port Area district levels, master planning and urban design guidelines at PCD project site level, in addition to architectural design and site planning for specific buildings within project subdivision level. Those spatial levels for the project form a hierarchy that needed to be integrated to form a continuous setting. In the PCD project, there was lack of updated vision for the Port Area district level which resulted in lack of integration and conflict between TEDCO's vision for the PCD project the City evolving vision for the overall Port Area district level.³⁶² Also, there was lack of integration between the Port Area and neighbouring residential communities and the inner city.

5. Land Use Functional Transformation Process: The planning process was also characterized by land use functional-physical transformation that was represented at both levels of the PCD project and at the overall Port Area in general. Even though the City Official Plan and zoning designation for the Port Area was primarily industrial, TEDCO had to market the project for warehouse retail commercial, because it was difficult to attract the industrial function

³⁶² As outlined by the former City Commissioner for Urban Development, the main reason for not accepting the proposed "Big Box" project was the conflict with City vision for the future of the Port Area. However, the City did not update the official or Port district plan including urban design guidelines to convey City aspirations and vision. It was later in 2000 when the City and community conveyed their vision for the Port Area in the Report "*Unlocking Toronto's Port Lands: Consultation Results – Ideas, opportunities, priorities, and advice from the people that live, work, and play in Toronto's Port Lands and neighbouring areas.*" (Key Participants' Interviews, 2000).

to the area.³⁶³ In addition, the Port Area is experiencing an emergence of the office function as in the case of Toronto Hydro project. This functional transformation factor should be considered in the land use functional definition for the PCD project and the Port Area in general.

7.5 Further Development Status of the Port Centre Development Project - Toronto³⁶⁴

The PCD project was not implemented. However, another project was implemented on certain parts of the site called Filmport by Toronto Film Studios. The following are excerpts from Canada NewsWire, Ottawa, September 15, 2005:

- The City of Toronto Economic Development Corporation (TEDCO) together with Toronto Film Studios Inc. (TFS) and its parent The Rose Corporation signed a land lease (for 99 years) and other agreements to develop Canada's largest film and media production complex in the City's Port Lands.

- The comprehensive lease included the construction and long-term operation of the first phase of the film/media complex, which had been an open international competition won by TFS. The agreement obligated TFS to start building the first phase of the \$100 million complex by August 31, 2006.

- The 99-year lease agreement was for an initial 30 acre site (12 hectares) between Don Roadway and Bouchette Streets, south of Commissioners Street and north of the Shipping channel. The transaction also included option rights on 15 acre (6 hectares) of land north of Commissioners Street.

- The initial phase will comprise 232,500SF of production facilities. TFS was also planning to expand the complex to 550,000SF of production space including a dozen sound stages.³⁶⁵

- Financing was partly by TFS parent company The Rose Corporation and its equity partners (\$25 million in equity) and the remaining construction financing was by HSBC Bank Canada. Permanent financing was arranged by The Rose Corporation.³⁶⁶

- Based on information obtained from the website for TFS Filmport, phase 1 studio complex was to open for business by March 2008. Construction of the first commercial offices and industrial buildings was scheduled to commence by the spring of 2008. Occupancy for two buildings was expected in 2009. The overall development of the Filmport was expected to continue for seven to ten years at a total estimated construction cost in excess of \$700 million.³⁶⁷

Currently, Filmport has a new ownership and a new name, Pinewood Toronto Studios. The new group purchased the 80% stake in the film studio complex from the Rose Corporation. The new ownership consortium consists of Comweb Corporation, ROI Capital, and Castlepoint

³⁶³ The new industrial functions prefer suburban location instead of the inner city. Refer to Chapter Two for details.

³⁶⁴ Information for this section was obtained from Newspaper Articles and the website for Toronto Film Studios.

³⁶⁵ In addition, development outside the studios would include up to one million SF of offices, restaurants, conference facilities and possibly a hotel, as well as additional industrial and commercial space. The combined development cost of the studio complex and surrounding commercial space was estimated at \$275M.

³⁶⁶ The Rose Corporation is privately-held, Toronto-based merchant bank with a 25 year record of success (Canada NewsWire, Ottawa, September 15, 2005).

³⁶⁷ Filmport Toronto website, http://www.Architect.co.uk/Toronto/filmport_toronto.htm. (July19, 2009).

Realty Partners, in addition to TEDCO who is the land owner. The parent company for the new group is Pinewood Shepperton plc.³⁶⁸



Exhibit 7.19: Photos of Filmport Project at Part of the Site of Port Centre Development (August 10, 2009)

7.6 **Lessons Learned - Port Centre Development – Toronto:**

1. **TEDCO as a Public (or Quasi-Public) Development Corporation for the Project:**

Having a public (or quasi-public) development corporation directly responsible for redevelopment was unique to this project. This provided a favourable condition for redevelopment since the project developer combines the advantages of a public entity that aims at serving the public interest, as well as having an effective organizational set-up similar to a private corporation. Even though this project was not implemented due to conflict of vision between TEDCO and the City, TEDCO was successful in securing cost of site remediation from previous users as well as marketing arrangements with potential business investors to be located

³⁶⁸ Website for Filmport and Pinewood Toronto Studios, <http://www.pinewoodtorontostudios.com/> & <http://www.insidetoronto.com/article/71970>. Information was obtained on July 19, 2009.

within the project.³⁶⁹ Having a redevelopment authority like TEDCO was instrumental to brownfield redevelopment in the area.

2. TEDCO-City Conflicting Vision on the PCD Project and the Port Area:

Even though TEDCO was essentially owned by the City (approval authority), they could not manage to have consensus on a collective vision for site redevelopment functions. TEDCO was successful in achieving the objectives of its “economic” mandate, which eventually led to “Big Box” project. The City did not approve the “Big Box” project because of different future vision for the Port Lands, and the negative impact of the project on inner city small retail market and traffic. The City perceived the Port Area as part of the inner city setting, rather than a suburban “Big-Box” mall setting. It was perceived as a place for people, pedestrians and cyclists, rather than car oriented setting, and ultimately a place close to the waterfront as public open space.

It is important to note that the City of Toronto did not work on developing their specific planning vision for this area aside from planning performed by the project developer as they did in the case of the G&W project. Given that official plan amendment and rezoning were more likely to be required, the City’s responsibility to update their planning vision would be imminent. In the case of G&W project, the City was committed to concurrent planning alongside with the private developer planning which led to agreeable results to both the City and the developer. It would be equally important to have the same City be committed to concurrent planning with TEDCO planning in the case of the PCD project. Given that TEDCO is essentially owned by the City, they are essentially partners and should act as such rather than acting like competitors.

3. TEDCO-Community Conflicting Interests and Vision for the PCD Project:

Real community involvement in the planning process as perceived by local residents is crucial to project success. Even though TEDCO arranged community meetings and consultation, local residents and interest groups perceived the process more like information and to gain community support for the project rather than trying to incorporate community views in the proposed PCD project. This resulted in opposition from the community and interest groups. For project success, it is essential to create the proper setting for Developer-Community collaboration and partnership as an integral part to Developer-City collaboration and partnership discussed above.

³⁶⁹ In addition, TEDCO was successful in fostering other brownfield redevelopment projects within the Port Area like Toronto Hydro Service Centre.

CHAPTER EIGHT: CASE STUDY AREA THREE

COOKSVILLE QUARRY SITE PROJECT – MISSISSAUGA

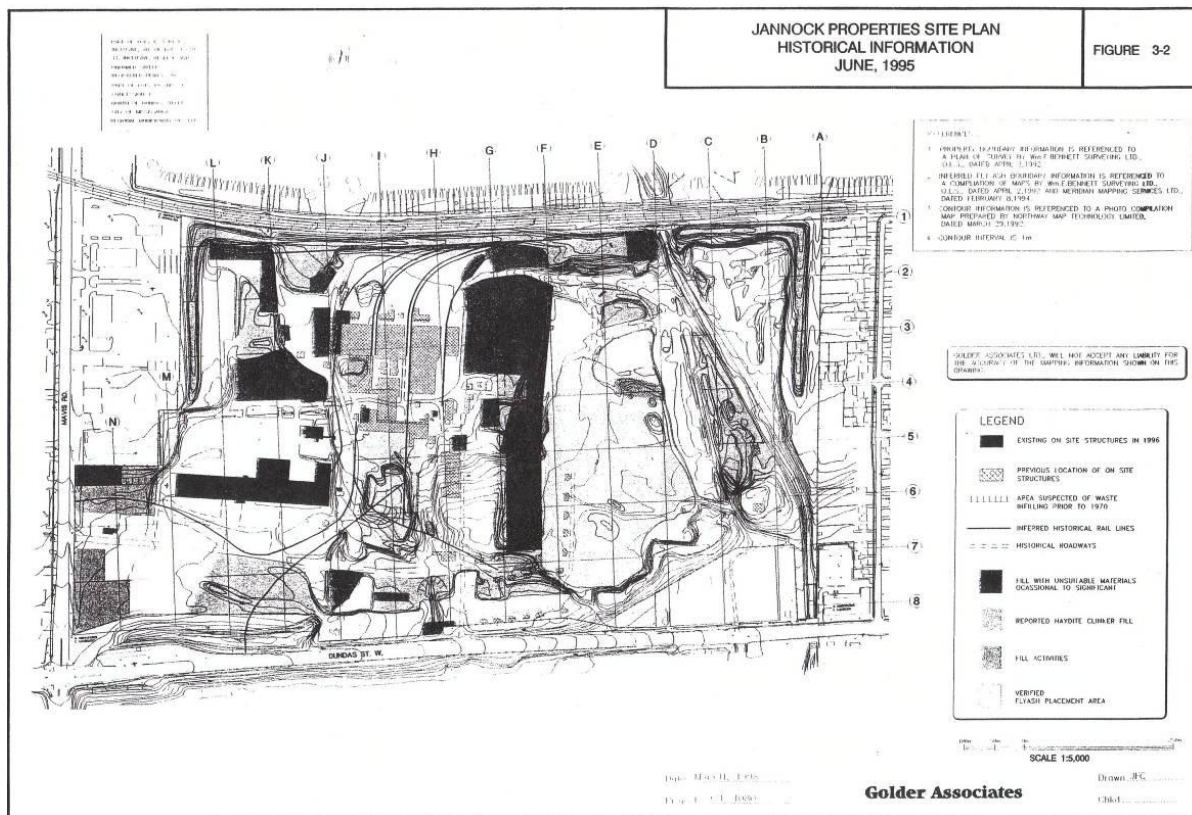


Exhibit 8.1: Cooksville Quarry Site, Historical Information, Mississauga (Golder Associates, 1998)

8.1 GENERAL CASE STUDY OVERVIEW

8.1.1 Case Study Site

The case study site is located near Mississauga city center (within 3 km radius), at the northeast corner of Dundas Street West and Mavis Road intersection. The site is bounded by CPR Railway Line to north, Dundas Street to the south, Parkerhill Drive and a residential subdivision to the east, and Mavis Road and Transportation & Works Department Yard to the west. Mary Fix Creek crosses the site at its eastern side from north to south. The project site is surrounded by residential communities from north, east and south sides. There is an industrial area on the west side, across from Mavis Road. Before redevelopment, the Cooksville Quarry site was zoned to accommodate a variety of residential, commercial, and open space uses.

The area of the Cooksville Quarry site is 74.9 hectares (185 acres). Before redevelopment, an existing Quarry extended over about 24.3 ha (60 acres) on the eastern third of the property, where most of the shale quarrying operations for brick manufacturing were carried out. The Quarry part of the site was traversed by the Mary Fix Creek and included the flyash

placement area in the south half of the Quarry to the west of the Creek. Other main activities undertaken within the site included brick production and related building products within two former brick plants that were present at the commencement of the project, in addition to another former brick plant which was no longer evident.³⁷⁰

8.1.2 Problems, Challenges, and Opportunities Facing Redevelopment

The site conditions posed the following problems and challenges (Exhibit 8.1):

- Underutilized site in general, including derelict buildings.
- Site deformation as a result of extensive quarry activity and due to brick manufacturing.
- This problem was exacerbated by backfilling the site with residual manufacturing materials as a result of brick operations including different processes.³⁷¹
- The Quarry site was a waste fill area that included flyash dumped by Ontario Hydro.³⁷²
- Environmental contamination (soil and ground water) by chemicals including fuel and petroleum products.
- Real and perceived legal liabilities of environmental contamination.
- Watershed concerns.
- A blighted site image close to Mississauga City Centre.

At the same time, the site conditions offered the following opportunities and potentials:

- Proximity to Mississauga City Centre.
- Proximity to public transport station (Go Transit).
- Site is adjacent to vibrant residential neighborhoods.
- Large area of underdeveloped land surrounded by an established service infrastructure.
- There is a great demand for urban land for the fast growing city.

8.1.3 Development History³⁷³ and Proposal

The site was originally owned by Domtar and then sold to Jannock Brick Group (then called Jannock Properties), the Developer of the site. The site is a formation of shale materials quarried for brick manufacturing. The brick factory activities were operating for the period 1912-1995. There were extensive Quarry activities as well as backfilling, with residual manufacturing materials including waste, old or non usable materials, in addition to fuel and petroleum products. Also, backfilling of flyash in the Quarry site was carried by Ontario Hydro, which was generated from Lake View electric generating station. The site included 1.5 million cubic meters of loose fill to be taken out according to guidelines. The site also included old derelict buildings, some burned down to ground.³⁷⁴ The Quarry site was considered as a waste landfill to be

³⁷⁰ Description of site activities is taken from Environmental Report prepared by Golder & Associates, 1998.

³⁷¹ Interview with project Developer (Key Participants' Interviews, 2000).

³⁷² The flyash was generated from Lake View electric generating station & dumped at the Cooksville Quarry site.

³⁷³ Information for this section was taken from Golder & Associates, November 1998.

³⁷⁴ Interview with project Developer (Key Participants' interviews, 2000).

cleaned-up in compliance with Section S.46 of the Environmental Act. The factory area would require full depth clean-up following 1989 MOE guidelines.

The *development proposal* for the Cooksville project was mixed-use redevelopment comprising residential, commercial, offices, neighbourhood Park, and an elementary school (Exhibits 8.2 & 8.3). The main redevelopment plan was to utilize land for a predominantly residential community with a neighbourhood centre including commercial and office functions at the intersection of Dundas Street and Mavis Road, and a neighborhood park to occupy the previous location of the flyash area after site remediation. An elementary school was located inside the residential area and abutting the neighbourhood park. A storm water management system was provided within Mary Fix Creek area.

Exhibit 8.2: Outline of Project Development Proposal	
Residential: Number of Units	Site Characteristics:
Detached: 286	Frontage: Dundas St. W. 1,037m (3,403ft)
Semi Detached: 70	Mavis Rd. 317m (1,038ft)
Street Row Dwellings: 154	Depth: 614m (2014ft)
Medium Density I Units: 166-333	Gross Lot Area: 74 ha (184 acres)
Medium Density II Units: 207-518	Net Lot Area: 62ha (153acres)
High Density I Units: 330-495	Surrounding Land Use
High Density II Units: 824-1,133	North: Detached Dwellings
TOTAL: 2,037-2,989	East: Detached Dwellings, Semi-Detached Swellings, and Retail Commercial Areas.
	South: Detached Dwellings
	West: Mavis Road Works Yard
Gross Density:	41-60 units/ha (17-24 Units/acre)
Net Density:	54-80 units/ha (22-32 units/acre)
Anticipated Population:	4,883-7,153
Neighborhood Commercial Centre:	7,432m ² - 9,290m ² (80,000ft ² - 100,000 ft ²)
Convenience Centre	929m ² - 1,858m ² (10,000ft ² - 20,000ft ²)
Office Commercial	1,394m ² - 1,858m ² (15,000ft ² - 20,000ft ²)
Highway Commercial Uses	2,323m ² - 3,716m ² (25,000ft ² - 40,000ft ²)
Elementary School	
Neighborhood Parkland	0.58ha (1.43 acres)
Storm Water Management Facility Along Mary Fix Creek	

8.2 ANALYSIS OF PROJECT PLANS AND PLANNING PROCESSES

The overall planning process was complex, including private Owner-Developer planning process and regulatory planning by the public approval authorities (City/Region/Province). The development approval process was the organizational set-up and interface between planning by the private developer and his team and the City of Mississauga approval authority. In essence, the development approval process was an interactive setting for planning decisions between the

private developer and the public approval authority, in addition to community residents and groups who were involved during the public consultation process.

8.2.1 Public Sector/Government Plans, Policies, and Other Regulations

The government regulatory planning included the City Official Plan, zoning by-laws and other plans and regulations.³⁷⁵ The City Official Plan designation for the Cooksville Site was residential. The Cooksville site was within the Dundas-Fairview Secondary Plan. The previous Secondary Plan designation of 1980 for the Cooksville site was for long-term residential area which permitted a variety of dwelling unit types to a population of approximately 10,800. The existing zoning for the Cooksville site included M2 (industrial and manufacturing uses), R4 (detached dwellings on lots with minimum frontages of 15 m (49 ft), and O2 (park).

In 1990, the City of Mississauga prepared the “*Cooksville Redevelopment Study*” to determine the land-use distribution and densities that would be compatible with transportation capacities and an appropriate urban form for development.³⁷⁶ Joint meetings were conducted between the City and the Developer of the Cooksville Site to discuss the outstanding issues of the project in order to incorporate pertinent decisions into the new Secondary Plan. In 1996, the City adopted the new Secondary Plan for the “*Dundas-Fairview*” Area, based on the “*Cooksville Redevelopment Study*”. An Official Plan amendment and rezoning application would be required from the Developer for the development of the Cooksville site.³⁷⁷

In 1990, the City of Mississauga approved the “*Interim Guidelines for the Provision of Affordable Housing*” to be applicable to residential development applications of approximately 100 units or more.³⁷⁸ According to the Interim Guidelines, the City requirement for affordable housing was 25% of all residential units, which was applicable to the Cooksville Quarry project.

In 1997, the City adopted a policy regarding applications for development of contaminated sites or potentially contaminated sites. That was basically following “*Guidelines*

³⁷⁵ Government plans, regulations, and guidelines included the following: • City Official Plan including related District Plans, • Zoning By-laws, • City policy and procedure regarding “*Applications for Development of Contaminated or Potentially Contaminated Sites*” (September 10, 1997), • City Guidelines for the Provision of Affordable Housing (April 1990), • Guideline for Use at Contaminated Sites in Ontario (MOE, 1989), • Guidelines on Separation Distance between Industrial Facilities and Sensitive Land Uses (MOE, 1992), • Ontario Planning Act, R.S.O. 1990, • Ontario Environmental Protection Act 1990.

³⁷⁶ The Study included Dundas-Fairview and Cooksville-Munden Park areas. The main planning objectives were: “(a) to revitalize and reinforce the role of Cooksville as a District of Commercial Centre; (b) to reinforce and expand the role of Cooksville as a centre for community services and to provide a full range of commercial and community facilities within convenient access of the residents.

³⁷⁷ For details of rezoning, see outline of Developer’s application, 1996 in “Appendix A.8.3.

³⁷⁸ City of Mississauga (1989). *The Housing Strategy and Provincial Land Use Planning for Housing Policy Statement*, Appendix E-Interim Guidelines for the Provision of Affordable Housing.

for Use at Contaminated Sites in Ontario, Revised February 1997”, prepared by the Ministry of Environment (MOE). However, actual site remediation for the Cooksville Quarry site was following MOE Guidelines of 1989.³⁷⁹

8.2.2 Private Sector - Developer Plans and Planning Process

The redevelopment planning process by the private Developer and his team of consultants was within the framework and requirements of the government approval process, which included compliance with current as well as emerging government plans and policies. A critical component of the approval process was the issue of resolving environmental site contamination and remediation, which required environmental approval by MOE. The physical land use planning and design process was the central component of the site plan of subdivision process. Site remediation planning was a critical component in the process since it included a decontamination process that was associated with current and future legal liabilities. The environmental approval process including site remediation was carried out simultaneously with the overall development approval process for site plan of subdivision.

8.2.2.1 Development Approval Process - Site Plan of Subdivision

Planning for the Cooksville Quarry site was concurrently performed by both the Developer and the City of Mississauga. The Developer initiated communication with the City of Mississauga in 1992 regarding the redevelopment of the site. Based on findings and requirements of the “Cooksville Redevelopment Study”, the City was updating the “Dundas-Fairview” Secondary Plan, which included the Cooksville Quarry Site.³⁸⁰ In the mean time, the City requested from the Developer to prepare the Tertiary Plan for the Cooksville Quarry site. Initial joint meetings were conducted between the City and the Developer, in addition to the planning consultant, to discuss site redevelopment issues. In 1993, the City prepared a new Secondary Plan for “Dundas-Fairview” area. In the same year, the Developer prepared a Draft Plan of Subdivision and applied for Official Plan amendment and rezoning.

The development approval process included several submissions by the Developer and reviews by the City, in addition to public meetings that included local residents’ views on the

³⁷⁹ In the case of the 1989 Guidelines, MOE approval included their review, field inspection, as well as issuing a statement of completion of site remediation plan and acknowledging compliance with the Guidelines. According to the 1997 Guidelines, MOE only acknowledged receipt of Record of Site Conditions was required from the Owner/Proponent (Key Participant’s Interview).

³⁸⁰ The City prepared Cooksville Redevelopment Study in 1990. As part of the Dundas-Fairview Secondary Plan, the City wanted to include future transportation requirements, impact of existing transportation system, use of water quality monitoring program, and to control post development flow of storm within Creek watershed.

project. In December of 1994, the Developer prepared the formal submission of a Draft Plan of Subdivision for the site. Review of the proposed Draft Plan of Subdivision was conducted by the City and the Region with joint meetings between the City and the Developer. In May 1995, the City put a Holding Zone Designation on the property, requiring site remediation and fulfillment of City requirements for site redevelopment. In December 1995, the Developer had submitted the revised Draft Plan of Subdivision, which was followed by communication and joint meetings with the City and the community to discuss the Plan. In January 1996, the City Council adopted the Official Plan. After several joint meetings with the City as well as with the community, the Developer submitted another revised Draft Plan of Subdivision in January 1997 (Exhibit 8.3). The City Council approved, in principle, the application for rezoning, Official Plan amendment, and Draft Plan of Subdivision in May 1997. Several issues were pending and resolved later. The City finally approved the Draft Plan of Subdivision in January 1998, and the approval included Schedule A - Conditions of Draft Approval, which was City-Owner agreement on site redevelopment. The site remediation plan was prepared in 1996 as part of environmental approval and during the development approval process.

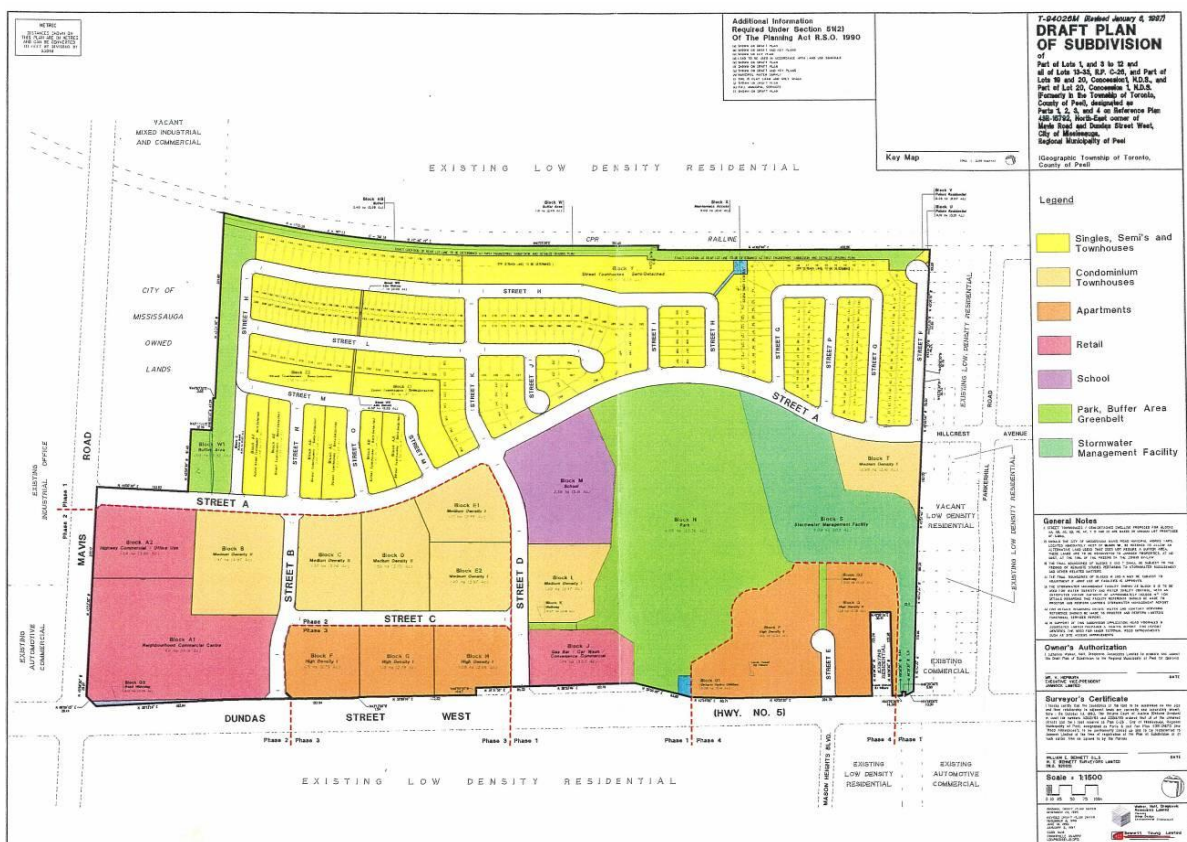


Exhibit 8.3: Revised Draft Plan of Subdivision, Cooksville Quarry Project, Mississauga, January 6, 1997 (Jannock Properties/Developer, Project Files)

8.2.2.2 Environmental Site Remediation Process

The main environmental problem components that were known in advance included soil and ground water contamination resulting from brick factory operations, Quarry operations resulting in site grade deformation, and the flyash fill in the Quarry area. The flyash fill in the Quarry was dumped by Ontario Hydro since 1980 and as part of an agreement with the previous Owner (Domtar) of the Cooksville Quarry site. Another off-site problem component was discovered during the planning process, which was the City's waste land fill site adjacent to the project at its northwest corner. Site remediation processes for all of the above problem components required approval by the MOE as part of the environmental approval process. The City put a holding symbol (H) on the property until final approval was given by MOE.³⁸¹

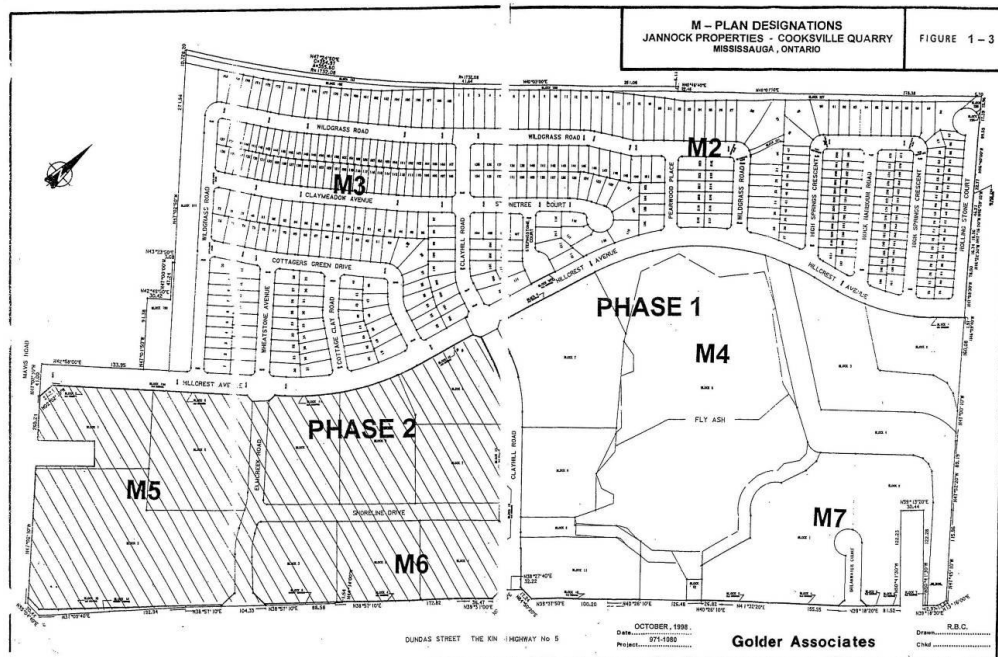


Exhibit 8.4: Phases of Site Remediation, Cooksville Quarry (Golder Associates, Nov. 1998)

The project site was initially subdivided by the Developer into three Parts/Phases, namely A, B, and C, in order to allow for ongoing operations of the brick factory and its closure (Golder Associates, 1998). Part A (Phase I) included the Quarry and the flyash fill, in addition to their effect on the adjacent Mary Fix Creek. Parts B and C were combined together as Phase II and they included the brick factory and surrounding areas (Exhibit 8.4).³⁸² Each of these Phases was

³⁸¹ According to "Section 36.1" of the Planning Act (1990), "The City/Municipality may, in a by-law, by the use of a holding symbol (H) in conjunction with any use designations, specify the use to which lands, buildings or structures may be put at such time in the future as the holding symbol is removed by amendment to the by-law".

³⁸² The Quarry issue was linked with the brick factory operations and they had to be part of a closure to this function. Also, the Quarry was linked with the flyash issue since it was the landfill site for it.

an independent remediation process that required its own approval from MOE. Buffer zones between the phases were provided to allow for phased implementation. Site remediation planning went from the east side to the west side following the mentioned above phases.

The City's land fill site, on the northwest corner of the project was the responsibility of the City of Mississauga, but its environmental effects on the project site had to be mutually addressed and resolved.

In brief, the environmental remediation process included the following stages:

1. *Assessment of historical operations (Level-1 Environmental Site Assessment-ESA)*
2. *Preliminary characterization of subsurface conditions (Level-2 ESA)*
3. *Development of clean-up strategy*
4. *Implementation of remedial works and*
5. *Verification testing to confirm adequacy of clean-up works*³⁸³

Prior to remedial works being carried out and, for the purpose of more accurately determining on-site location, the whole site was subdivided into grid cells of 90mx90m. The following is a brief outline of site remediation issues within the two main phases.

1. Phase-I (Part A): Closure and Remediation of Flyash Fill Area

The main issues were closure of the Quarry operations, solution for flyash fill area, restoring site grades, and effects on adjacent Mary Fix Creek. The Developer-Owner had to close Quarry operations first before going into site remediation planning.³⁸⁴ The site grades for the excavated Quarry area had to be restored. The remediation plan for flyash fill required Minister's approval according to Section S.46 of the Environmental Protection Act.³⁸⁵

According to the development plan, the proposed land use for the flyash area was a public park/recreation, which was also restricted by Section S.46 of the Environmental Protection Act. The Developer had to transfer ownership of the developed parkland to the City as part of parkland dedication and as required by the Ontario Planning Act.³⁸⁶ The remediation plan included an engineered soil cap over the flyash area, which should be in compliance with generic

³⁸³ Golder Associates, (November 1998).

³⁸⁴ The Quarry operations were formally active during the approval process, even though no excavation was made. The Developer had to provide a formal closure plan for Quarry operations in order to proceed with the development (Key Participant's Interview, 2000).

³⁸⁵ Section 46 of Environmental Protection Act, 1990 states: "No use shall be made of land or land covered by water which has been used for the disposal of waste within a period of twenty-five years from the year in which such land ceased to be so used unless the approval of the Minister for the proposed use has been given."

³⁸⁶ "Section 51.1.1, Parkland" States: "The approval Authority may impose as a condition to the approval of a plan of subdivision that land in an amount not exceeding , in the case of a subdivision proposed for commercial or industrial purposes, 2 per cent and in all other cases 5 per cent of the land included in the plan shall be conveyed to the municipality for park or other public recreational purposes or, if the land is not in a municipality, shall be dedicated for park or other public recreational purposes.", Ontario Planning Act, R.S.O. 1990.

engineering design criteria by MOE for the type of soil cap and thickness.³⁸⁷ Also, the soil cap level had to be raised to reach surrounding grade level. The latter soil fill for site grading followed other MOE criteria to suit residential parkland/recreational uses. No digging was allowed on the soil cap.

Due to risks of leachate from flyash to adjacent Mary Fix Creek, ground water, as well as the lake, long term monitoring of leachate was required according to MOE requirements. Future monitoring was the responsibility of Ontario Hydro, since they were the operator who placed the flyash in the Quarry. Since there was future liability of leachate effects, and as part of Section 46 Approval for the site remediation of the flyash area, MOE required a three party indemnification of the Crown.³⁸⁸ The three parties included Ontario Hydro, the originator of flyash fill, the Developer-Owner who will transfer the parkland to the City, and finally the City who will be the future owner of the Parkland area.

2. Phase-II (Parts B & C): Brick Factory & Surrounding Contaminated Areas³⁸⁹

The main problem was soil contamination resulting from brick factory operations and by-products. Ground water within the site and surrounding areas was not considered as a resource due to poor ambient water quality and low well yield. However, ground water monitoring was required to assess potential impact of flyash left within the site and capped.

The site soil remediation was based on generic clean-up guidelines and in accordance with 1989 decommissioning guidelines which included MOE approval on the process with issuing a “*Statement of Completion*” after all remedial work would be completed. The site specific guidelines for site remediation were as follows:

- *Site-Specific Soil Clean-up Criteria*
- *In-situ Deep Fill Acceptance Criteria*
- *Imported Fill Quality Criteria*
- *Water Quality Guidelines*
- *Off-site Disposal Criteria*

³⁸⁷ The solution for landfill site, to be used for parkland/recreational uses, was to cap it with clay and to follow certain depth and remediation criteria by MOE and in accordance with section S.46 of the Environmental Act. Section S.46 permits only recreational and open space uses on a landfill site. The soil cap was to reduce leachate and its overall depth in this case was about 6 meters (Golder Associates, November 1998).

³⁸⁸ According to MOE “Environmental Protection Act, Section 46 Approval, February 3, 1999, Item 15” for Flyash area to be used as parkland, “3 separate Indemnification Agreements, ..., have been entered into between: (i) Jannock Limited (Developer) and Her Majesty the Queen in Right of Ontario as represented by the Minister of the Environment, (“MOE”), (ii) The Corporation of the City of Mississauga (“Mississauga”) and MOE, and (iii) Ontario Hydro, Jannock Limited (Developer), Mississauga and MOE, regarding claims relating to issuance of this approval, use of lands, and work undertaken at the lands;

³⁸⁹ This section is based on information taken from Golder Associates, 1998.

Site remediation and restoration was achieved by excavating the sub-soils to limits where compliance with the site specific clean-up levels or protocols was met, and by segregating the excavated materials on the basis of quality for re-use on-site or for off-site disposal. To facilitate soil remediation, excavated materials were re-located on-site depending on their chemical and aesthetic quality.³⁹⁰ The MOE performed pre-verification inspections during site remediation for completed areas as well as final verification inspections after site remediation.

8.3 KEY PARTICIPANTS INTERVIEWS – ANALYSIS & FINDINGS – Cooksville

Taped Interviews with focused/open-ended questions were conducted for eight Key Participants in the project as Informants representing the public sector approval authority, private sector Developer, and local community residents.³⁹¹ Only six Key Participants completed the structured (written) questionnaire for impact evaluation of selected problems and policy directions. The results for impact evaluation of problems and policy directions are outlined in Appendix A8.1 and Appendix A8.2 respectively. The analysis of responses from Key Participants for the focused/open-ended and structured/written interview questionnaire are based on the same eight research units of analysis, originally derived for the empirical case study method (Chapter Five).

8.3.1 Key Participants’ Interview Responses on Environmental-Legal Planning Sub-process - Site Remediation Planning

As conveyed by the Key Participants, the main environmental problems and issues were at three main areas including flyash infill at the Quarry and Mary Fix Creek (Phase-I), contamination resulting from brick factory operations (Phase-II), in addition to environmental impact of City landfill site adjacent to the project site.³⁹² The site remediation approval process was compliance driven rather than proponent driven which implied direct involvement of MOE in the process as well as being responsible for giving final approval and issuing a “*Statement of Completion*”.³⁹³

³⁹⁰ Excavated soil, which exceeded residential/parkland site-specific criteria but did not exceed commercial criteria, was moved to grid blocks designated for commercial redevelopment. Soil that exceeded the site-specific criteria for non-human health related parameters was blended to reduce the soil concentration to acceptable levels. Soil that exceeded commercial criteria were segregated and hauled off-site for disposal (Golder Associates, 1998).

³⁹¹ Public sector representation included the City of Mississauga and MOE. Private sector representation included the Developer, planning consultant, and the environmental consultant for site remediation. An interview was scheduled with the local community representative but was cancelled based on his request.

³⁹² Interviews with the environmental engineer/project manager at the District Office of MOE, the environmental engineer at the City of Mississauga, and the private environmental consultant commissioned by the Developer (Key Participants’ Interviews, 2000).

³⁹³ MOE is involved when there is adverse environmental impact per Section 14 of the EPA. The 1989 MOE guidelines implied compliance driven environmental remediation and was unclear about proponent driven process. In the later MOE guidelines of 1996-1997, it was clear that the process was proponent driven (by applicant) through the development approval process with the City/municipality and MOE involvement would be limited to general

Environmental approval for Phase-I flyash infill at the Quarry was based on Section 46 of the Environmental Protection Act (EPA) designated for land fill sites, which allowed a future use for open space and recreation only. Site remediation also included site re-grading to restore site levels. The process included an engineered clay cap (6 meter thick) and following specific criteria and 1989 guidelines. Also other approved soil materials were deposited on top of the flyash because of deep fill for re-grading. Future monitoring was required for potential leachate to ground water. Ontario Hydro was legally liable for risks of flyash fill and accordingly responsible for future monitoring of potential leachate.

The site remediation process for the brick factory areas (Phase-II) included environmental assessment (Level-1 and Level-2), developing clean-up strategy and implementation, in addition to verification and testing to confirm adequacy of the clean-up. Site soil remediation was close to generic full depth clean-up following MOE 1989 guidelines. This included importing new soil as well as clean-up of existing soil from debris for reuse on site.

The environmental impacts from City Public Works landfill site included methane gas migration into the project, high chloride level resulting from salt stored at the adjacent site, and noise generated from truck traffic. Remediation for methane gas was in the form of gas collection system which also included future monitoring until acceptable gas level was reached. Chloride level in ground water was difficult to remove but its level would decrease over time. Also, salt was then stored in Igloos. For truck noise, the solution was providing a berm between the City Public Works site and the project site.

Impact Evaluation of Environmental Problems & Selected Policy Directions³⁹⁴

The “*Environmental-Legal Component*” was a central problem in the overall development process of this project. According to responses of key participants in the process, the overall average impact level for the environmental problems ranked “▲-● moderate-strong”. While the overall average impact for environmental policy directions ranked “▲ moderate” (Exhibit 8.5).

Exhibit 8.5: Impact Levels of Problems and Policy Directions: Environmental-Legal Component			
Level of Impact	Problems and Issues		Policy Directions
Very Strong	■	• Former MOE decommissioning guidelines, February 1989.	

process monitoring and acknowledgement of receipt of “Record of Site Condition” when site remediation was completed (Interview with the Environmental Engineer/Project Manager at the District Office of MOE, 2000).

³⁹⁴ See Appendix A8.1 and Appendix A8.2 for complete responses from Key Participants. The Environmental-Legal component included the highest response rate of 86% for problems impact and 78% for policy directions of the total number of actual questions for this component.

Strong	●	<ul style="list-style-type: none"> • Environmental site contamination • Current legal liabilities of contamination • Future legal liabilities of contamination • Clarity and consistency of current government approval process 	
Moderate-Strong	▲-●	<ul style="list-style-type: none"> • Perceived legal liabilities of contamination. • Government commitment to approval for site remediation. 	<ul style="list-style-type: none"> • Addressing environmental contamination & site remediation in the beginning of the process.
Moderate	▲	<ul style="list-style-type: none"> • Human & natural ecosystem health hazard. • Real legal liabilities of contamination. • Length of procedure (time delay) of current government approval process. 	<ul style="list-style-type: none"> • Defining and confining legal liabilities (current & future) for contamination/ decontamination to viable limits.
Weak	□		<ul style="list-style-type: none"> • Conditional lift of future liability of probable contamination from new purchasers of already cleaned sites.
Overall Average		Moderate-Strong (▲-●)	Moderate (▲)

In general, the impact levels for environmental problems were relatively high which indicate their relative importance. “*Adopting the MOE decommissioning guidelines of 1989*” ranked “■ very strong” impact because it provided a clear framework for the environmental remediation process including MOE’s responsibility and commitment in the process. This was also consistent with “*government commitment to approval for site remediation*” that ranked “● strong”. The problems of “*environmental contamination*” and “*clarity of government approval process*” ranked “● strong” impact which was consistent with the policy direction of “*addressing environmental contamination in the beginning...*” that ranked “▲-● moderate-strong”. Also, the problems of “*current and future legal liabilities of contamination*” ranked “● strong” impact. However, the policy direction of “*defining legal liabilities...*” ranked “▲ moderate” impact. In general, the impact of problems and policy directions for legal liabilities were perceived as relatively important except for “*conditional lift of future liability..*” that ranked “□ weak”.

8.3.2 Key Participants’ Interview Responses on the Physical-Functional Planning Sub-process – Land Use Planning, Urban Design, Site Planning, etc. – Cooksville Project

The main existing physical-functional problem was the underutilized site with old and obsolete industrial buildings that were perceived as an “eyesore”. Furthermore, there were extreme site grade changes ranging about 70’-80’ below existing land uses. The project site was not considered having built heritage value.³⁹⁵ Mary Fix Creek was to remain as a permanent water stream. There were noise problems from the rail line north of the site and from the Public Works yard at the northwest corner. The intensive and extensive physical-environmental problems

³⁹⁵ Interviews with the City project planner and the Developer (Key Participants’ Interviews, 2000).

necessitated an interactive planning process between the physical planner and the environmental engineer in order to integrate land use planning with environmental site remediation planning.³⁹⁶

The site redevelopment was like an urban infill surrounded by existing residential communities. The proposed land use functions required Official Plan amendment and rezoning to allow for a variety of residential uses, commercial, and office uses. The project was a mixed-use community of low, medium, and high density residential with neighbourhood commercial centre, offices, and recreational services. The flyash area was transformed to a community park. The attempt was to blend the new community with the surrounding residential communities.

There was conflict between the City and the Developer regarding size of residential development (number of units) that the Developer wanted to reduce based on financial feasibility and marketability.³⁹⁷ The City urban designers were focusing more on physical-functional criteria and aesthetics including building mass and height. The surrounding community was opposing the proposed high-rise buildings that would be overlooking their residences.³⁹⁸

Impact Evaluation of Physical-Functional Problems & Selected Policy Directions³⁹⁹

The overall average impact level of the selected “Physical-Functional” problems ranked “▲ moderate” (Exhibit 8.6). The main problems that ranked “●-■ strong-very strong” and “● strong” were “availability of public transportation” and “site visibility and accessibility from main transportation routes” respectively. Also, “accessibility to main transportation routes” was perceived as “▲-● moderate-strong” and “declining environmental image” ranked “▲ moderate” impact. This reflected the importance of site location near the city centre where accessibility to major transportation routes were already available and to improve the declining site image was also important, which influenced government decisions to push the project forward.

Exhibit 8.6: Impact Levels of Problems & Policy Directions: Physical-Functional Component - Cooksville		
Level of Impact	Problems and Issues	Policy Directions
Strong-v. Strong	●-■	● Availability of public transportation.
Strong	●	● Site visibility from main transport routes.
Moderate-Strong	▲-●	● Accessibility to main transportation routes. ● To prepare an inventory of contaminated sites. ● To reclaim lost urban space. ● To achieve environments with a sense of place

³⁹⁶ Interview with the private urban planning consultant commissioned by the Developer, 2000.

³⁹⁷ There was conflict of vision on the proposed land use functions between the urban designers at the City and the Developer as well as with community residents. (Interview with the project Developer, 2000).

³⁹⁸ The City Councilor mentioned there was an OMB case for this issue which was resolved at prehearing. Also, the Developer mentioned this was resolved by stepping back the high-rise building (Key Participants’ Interviews, 2000).

³⁹⁹ See Appendix A8.1 and Appendix A8.2 for complete responses from Key Participants. The Physical-Functional component included a response rate of 25% for problems impact and 38% for policy directions of the total number of actual questions for this component. This was relatively low response rate, mainly due to limited knowledge.

			and community
Moderate	▲	<ul style="list-style-type: none"> • Declining environmental image of the area 	<ul style="list-style-type: none"> • To maintain a balance between heritage conservation & urban innovation.
Very Weak	○	<ul style="list-style-type: none"> • Vacant or abandoned buildings/site • Underutilized buildings & site. • Physical dilapidation of buildings. • Deterioration of physical infrastructure. 	
Overall Average		Moderate (▲)	Moderate-Strong (▲-●)

In general most of the selected policy directions/guidelines were perceived to be relatively important ranking “▲-● moderate-strong” including “*preparation of an inventory of contaminated sites*,” “*reclaiming lost urban space*”, and “*achieving environments with a sense of place and community*”. While “*maintaining a balance between heritage conservation and urban innovation*” ranked “▲ moderate” impact.

8.3.3 Key Participants’ Interview Responses on the Economic Planning Sub-process – Financial Planning and Marketing – Cooksville Project

The project was privately financed without government funding. As outlined by the Developer, the project was financially feasible and site remediation cost was close to market value in 1996.⁴⁰⁰ Environmental insurance was not available and the Developer mentioned that they did not need it. Marketing the project to potential builders and investors did not start until about 80% of site remediation was complete and the majority of approvals were substantially complete. As pointed out by the project Developer, the delay in marketing was partly due to negative perception of a contaminated site and the difficulty of clean-up to residential use standards.⁴⁰¹ The project Developer did not need prior sales to use the revenues for the project.

Impact Evaluation of Economic Problems & Selected Policy Directions⁴⁰²

The overall average impact level for selected problems ranked “▲-● moderate-strong”, which indicates their relative importance to this case (Exhibit 8.7). The outstanding problems of “*impact of site remediation cost ...*” and “*scarcity of public and private funding*” rated “■ very strong” impact, which was consistent with the policy directions of “*developing financial*

⁴⁰⁰ The Developer mentioned the total site remediation cost was about \$13 M and the total site area was 180 acres with 140 net usable acres. The average cost of site remediation was about \$92,000/acre which was close to market value in 1996. The project was feasible because of actual site redevelopment (Key Participants’ Interviews, 2000).

⁴⁰¹ As outlined by the project Developer, potential builders were reluctant to be the first in involvement in the project because of perception of a contaminated site. However, when site remediation and approvals were substantially completed, the case started to shift to marketable condition (Key Participants’ Interviews, 2000).

⁴⁰² See Appendix A8.1 and Appendix A8.2 for complete responses from Key Participants. The Economic component included a response rate of 14% for problems impact and 17% for policy directions impact of the total number of actual questions for this component. Even though the response rate was relatively low, the response value was important due to the direct involvement of key participants in the process.

incentives ...” that ranked “■ very strong” and “*establishing public-private partnership for project financing*” that ranked “● strong” impact. The problem of “*declining economic redevelopment market*” ranked “▲ moderate”, which indicates a level of importance and it is consistent with the policy direction of “*arranging for early marketing*” that ranked “■ very strong”. The problem of “*project perception being financially not feasible*” ranked “○ very weak”, which indicates that the project was financially feasible.⁴⁰³ The overall average impact for policy directions ranked “●-■ strong-very strong” which indicates their importance in this case study.

Level of Impact	Problems and Issues	Policy Directions
Very Strong	■ <ul style="list-style-type: none"> • Impact of site remediation cost on project financing. • Scarcity of public & private funding 	<ul style="list-style-type: none"> • To arrange for early marketing. • To develop financial/redev. incentives. • Availability of environmental liability insurance to cap site remediation costs and control future liabilities.
Strong	●	<ul style="list-style-type: none"> • To establish public-private partnership for project financing
Moderate	▲	<ul style="list-style-type: none"> • Declining economic redevelopment market
Very Weak	○	<ul style="list-style-type: none"> • Project perception is economically not feasible.
Overall	Moderate-Strong (▲-●)	Strong-very Strong (●-■)

8.3.4 Key Participants’ Interview Responses on the Social Planning Sub-process – Social Equity and Safe Community Planning – Cooksville Project

The project included social and socio-economic objectives achieved in the process. As mentioned by the project Developer, there were no crime problems and no major social equity issues. The new development would generate many more jobs than those provided in the previous brick factory plant before closure in 1991.⁴⁰⁴ However, there was no clear program to ensure accessibility of former workers to newly generated jobs. Also, the project contributed to increased property values and municipal taxes revenues.⁴⁰⁵ In addition, the project redevelopment plan included affordable social housing that represented 25% of total number of residential units, an elementary school, and a community park with recreational facilities.⁴⁰⁶ In

⁴⁰³ Interview with the project Developer revealed that the project was economically feasible, (2000).

⁴⁰⁴ Before plant closure in 1991, there were about 100 employees, which were laid off or transferred. The Developer mentioned that the plant operation could be retained but it was not feasible. In the new development, Home Depot & Loblaw alone would provide more than five times the number of previous jobs (Key Participants’ Interviews, 2000).

⁴⁰⁵ As outlined by the Developer, the project would generate about \$6 million in municipal revenues, 2000.

⁴⁰⁶ The affordable housing provision of 25% was originally mandated by the City. However, during project implementation, the requirement was later revoked by the province as part of the amendment in the Ontario Planning Act 2001 (Follow-up Interview with the project Developer on June 17, 2009).

conclusion, there was no specific social planning sub-process in this project; however, there were social issues and objectives that were addressed in the process.

Impact Evaluation of Social Problems & Selected Policy Directions (Exhibit 8.8)⁴⁰⁷

The overall average impact level for selected “*Social*” problems ranked “○-□ very weak-weak”, which indicates that they are relatively less significant in this case. The problem of “*social inequities*” as a result of the redevelopment process rated “▲ moderate” impact, which indicates a level of importance.⁴⁰⁸ The response rating for this problem was inconsistent with the rating for the pertinent policy direction of “*securing access for local residents to newly generated jobs*” that ranked “■ very strong” impact. In general, the overall average impact level for all policy directions ranked “▲-● moderate-strong”, which indicates their relative importance in this case.

Exhibit 8.8: Impact Levels of Social Problems and Policy Directions: Social Component - Cooksville			
Level of Impact		Problems and Issues	Policy Directions
Very Strong	■		<ul style="list-style-type: none"> • Securing accessibility of local residents to newly provided opportunities/jobs.
Strong	●		<ul style="list-style-type: none"> • To foster social equity and justice through community participation.
Moderate	▲	<ul style="list-style-type: none"> • Social inequities/injustice due to negative socio-economic impact. 	<ul style="list-style-type: none"> • To achieve socially safe environment through community participation.
Weak	□	<ul style="list-style-type: none"> • Social stigmatization of the area 	
Very Weak	○	<ul style="list-style-type: none"> • Low education levels & high unemployment rate among residents enhance problems of job accessibility • Social problems associated with dilapidated/abandoned sites (vandalism & crime). 	
Overall Average		Very Weak-Weak (○-□)	Moderate-Strong (▲-●)

8.3.5 Key Participants’ Interview Responses on the Political Planning Sub-process – Stakeholders’ Organizational Planning & Partnership – Cooksville Project

Project planning was driven by the private Developer and his team of consultants as well as by the regulatory approval authority which was primarily represented by the City/Municipality and the Province/MOE. Also, community participation in the process was represented in extensive consultation meetings with the City and the Developer. The main conflicts and resolutions among stakeholders included the following:

- *Flyash Area*: Future risks and liability, the area to be transformed into a community park
- *Residential Density*: Total number units included in the development

⁴⁰⁷ See Appendix A8.1 and Appendix A8.2 for complete responses from Key Participants. The Social component included a response rate of 25% for problems impact and 28% for policy directions of the total number of actual questions for this component. This was relatively low response rate, because of limited knowledge of participant.

⁴⁰⁸ This issue was possibly related to the 100 employees that were laid off after factory closure in 1991 and the new redevelopment did not have a clear strategy for providing new jobs for former employees and local residents.

- *High-rise Buildings:* overlooking existing neighbouring communities (social privacy)
- **Flyash Area:** The risks of the left in flyash was from potential leachate into ground water and into the adjacent Mary Fix Creek. Accordingly, the site remediation plan included future monitoring for potential leachate levels. Ontario Hydro was originally liable for placing the flyash into the Quarry pit and hence will be responsible for monitoring. The Developer will be liable for the site remediation and restoration plan and transforming the area into a park. The City will be the future owner of the park. MOE was directly involved in setting up the site remediation plan in collaboration with the private environmental consultant commissioned by the Developer. In order to resolve the conflict, three indemnification agreements were made as part of the development agreement, whereby Ontario Hydro and the Developer indemnify the City of Toronto and all of them collectively indemnify MOE.

- **Residential Density:** This conflict was primarily between the City and the Developer. The original City Official Plan and Secondary Plan (of 1974) for the site area was designating 6000 residential units. While the Developer was proposing about 3000 residential units in the new site redevelopment, based on financial feasibility and marketability for residential density and type at that time. The development proposal was finally accepted by the City based on the overall advantages of the project for the municipality as well as for the community.⁴⁰⁹

- **High-rise Residential Buildings:** The conflict was about social privacy resulting from the proposed high-rise buildings at site edges overlooking existing residential neighbourhood. The Developer and the City were in agreement about the proposal. However, the issue was raised by local residents at an OMB case against the Developer and the City. The case was then resolved by changing the building form to be stepping back.

Stakeholders' collaboration and partnership took various forms. The City collaborated with the Developer in concurrent planning to update the Cooksville area Secondary Plan and in order to be the basis for development approval for the Cooksville Quarry project. The development agreement between the City and the Developer, including the four party indemnification agreements regarding future liability for flyash leachate, was a form of stakeholders' partnership. In addition, the City was enforcing public involvement in the process resulting in proper collaboration among the City, Developer, and the community.⁴¹⁰

⁴⁰⁹ As outlined by the City Councilor, the net value of taxes from residential was not very high except for high density condos (60+ units/acre) and for industrial/commercial uses (Key Participants' Interviews, 2000).

⁴¹⁰ Interview with the City Councilor, (Key Participants' Interviews, 2000).

Impact Evaluation of Political-Organizational Problems & Selected Policy Directions⁴¹¹

The overall average impact level for selected “*Political-Organizational*” problems ranked “□-▲ weak-moderate” which indicates relative less significant (Exhibit 8.9). In general, most of the selected political problems rated “□ weak” including “*conflicting stakeholders’ goals...*” and “*lack of stakeholders’ commitment to objectives and organizational setup*”. Also, the problem of “*lacking stakeholders’ consensus ...*” ranked “□-▲ weak-moderate”. These results were an indication for project success. The problem of “*lacking special redevelopment authority ...*” ranked “▲ moderate” which was consistent with the pertinent policy direction of “*developing a special redevelopment authority*” that also ranked “▲ moderate”. This indicates that this policy direction has some potential for application which would require a more detailed study.

Level of Impact		Problems and Issues	Policy Directions
Moderate	▲	<ul style="list-style-type: none"> Lack of special redevelopment authority that is directly responsible. 	<ul style="list-style-type: none"> To develop special redevelopment authority. To establish stockholders’ partnership: <ul style="list-style-type: none"> - Public-public partnership. - Public-private partnership. - Private-private partnership
	□-▲	<ul style="list-style-type: none"> Lack of stakeholders consensus on major objectives & issues 	
Weak	□	<ul style="list-style-type: none"> Conflicting goals, interests, and values of primary stakeholders. Lack of stakeholders’ commitment to achieve objectives. Lack of stakeholders’ organizational and collaborative commitment. 	
Overall Average		Weak-Moderate (□-▲)	Moderate (▲)

All selected policy directions ranked “▲ moderate” which indicates a level of importance for “*establishing stakeholders’ partnership*” and “*developing a special redeveloping a special redevelopment authority*”. Even though there wasn’t a development partnership between the City and the Developer in the sense of ownership, there was a “*Development Agreement*” that formed the core of the development approval process. In essence, the development agreement between the Developer and the City, as well as the four party indemnification agreements among Ontario Hydro, the Developer, the City, and MOE were other forms of “*Public-Private*” partnership.

⁴¹¹ See Appendix A8.1 and Appendix A8.2 for complete responses from key participants. The Political component included a response rate of 63% for problems impact and 21% for policy directions of the total number of actual questions for this component. The response rate for policy directions was relatively low due to limited knowledge.

8.3.6 Key Participants' Interview Responses on Project Implementation & Phasing

Most of the site remediation plan was completed before starting to implement the site redevelopment plan.⁴¹² The site remediation plan included two main implementation phases. Phase-I included the Quarry with the flyash fill and Phase-II included the factory areas including the administration building area. The site redevelopment plan included three major phases of implementation, in addition to a fourth phase that was later added to the project after its purchase by the Developer (Exhibit 8.3). Phasing of implementation for the site redevelopment was in a way different from phasing for site remediation; however, Phase-I of site redevelopment partly included the community park which was on top of the Quarry flyash area. The project Developer was primarily responsible for site remediation as well as for the community subdivision plan. Other builders and investors were also involved in the actual construction of buildings.

There was considerable delay in the project approval process; however this did not work negatively for the Developer but in his favor because it was during the down cycle of the market and when marketing for project subdivisions had started it was with the up cycle of the real estate development market.⁴¹³ This was another factor contributing to project success.

Impact Evaluation of Problems & Selected Policy Directions – Project Implementation⁴¹⁴

All of the stated problems ranked between “▲ moderate” and “● strong” impact, which indicated their relative importance (Exhibit 8.10). The problems that ranked “● strong” included “*difficulty of project initiation ...*” and “*long time delay in the approval process*” which was consistent with other findings in this case study. Also, the “*difficulty of phasing site remediation first and separate from implementation package*” ranked “▲-● moderate-strong”. In addition, “*difficulty of prioritized phasing through site subdivision due to legal requirements of site remediation and due to site conditions*” ranked “▲ moderate”. While the pertinent policy direction of “*adopting a gradual implementation strategy ... through site subdivision into prioritized areas*” ranked “● strong”; this indicates its relative importance.

⁴¹² As mentioned out by the project Developer, about 80% of site remediation was completed and majority of approvals were substantially completed before getting potential investors on-site for marketing the subdivision. This was to avoid negative perception of a contaminated site, (Key Participants' Interviews, 2000).

⁴¹³ Interview with the project Developer (Key Participants' Interviews, 2000).

⁴¹⁴ See Appendix A8.1 and Appendix A8.2 for complete responses from Key Participants. The unit of project Implementation & Phasing included a response rate of 50% for problems impact and 42% for policy directions of the total number of actual questions for this unit.

Exhibit 8.10: Impact Levels of Problems & Policy Directions: Implementation & Phasing - Cooksville			
Level of Impact	Problems and Issues		Policy Directions
Strong	●	<ul style="list-style-type: none"> • Difficulty of project initiation due to high risks & uncertainty • Long time delays in the approval process. 	<ul style="list-style-type: none"> • To adopt a gradual implementation strategy for site remediation and redev. through site subdivision into prioritized areas
Moderate-Strong	▲ -●	<ul style="list-style-type: none"> • Difficulty of phasing site remediation as first and separate implementation package. 	-
Moderate	▲	<ul style="list-style-type: none"> • Difficulty of prioritized phasing through site subdivision due to legal requirements for site remediation • Difficulty of prioritized phasing through site subdivision due to site conditions. 	-
Weak-Moderate	□- ▲	-	<ul style="list-style-type: none"> • To address site remediation first and site redevelopment as second package.
Overall Average	Moderate-Strong (▲-●)		Moderate (▲)

8.3.7 Key Participants' Interview Responses on the Key Policy Direction - Tax Increment Financing (TIF/TIEF) - Cooksville Project

As pointed out by Key City Official and the Developer, there would be a huge impact of redevelopment on the property assessment and real estate taxes for both the project site as well as for surrounding properties. Property assessment and annual taxes for the project were expected to increase more than eightfold as a result of redevelopment.⁴¹⁵ This indicates a great potential and viability for utilizing future tax increments for certain periods of time to match cost of site remediation and within a plan like tax increment financing (TIF/TIEF).

Impact Evaluation of Problems & Selected Policy Directions – Key Policy Direction (TIF)⁴¹⁶

The problem of “*expected tax increments after redevelopment being very low to match cost of site remediation*” ranked “○ very weak”, which indicates that the tax increments would be high and potentially viable for a TIF/TIEF plan (Exhibit 8.11). This is also consistent with the policy direction of “*developing a self-financing mechanism (TIF/TIEF) to finance site remediation cost*” that ranked “■ very strong”. An assessment for “*tax increments to capitalize site remediation cost within a period of 15 years*” ranked “● strong”. The “*obstacles facing a TIF/TIEF plan*” being the “*legal framework for the Municipal Act*” ranked “●-■ strong-very strong” and being “*institutional/organizational factors*” ranked “▲ moderate”. This indicates

⁴¹⁵ As outlined by the Developer, the annual property taxes would increase from an existing \$0.5M to \$6.5M-\$7M. The cost of site remediation for the entire site area (180 acres) was \$13M (Key Participants' Interviews, 2000). According to these estimates, the amount of added tax would cover the cost of site remediation within a period of about 2 years. A (TIF/TIEF) program may consider longer period frame (10-15 years) based on project condition.

⁴¹⁶ See Appendix A8.1 and Appendix A8.2 for complete responses from key participants. The response rate for this unit was 22% for problems impact and 17% for policy directions of the total number of actual questions for this component. This was relatively low response rate most likely due to limited knowledge about this specialized issue.

relative importance and viability of TIF/TIEF plan but the pertinent obstacles have to be resolved.

Exhibit 8.11: Impact Levels of Problems & Policy Directions: Key Policy Direction (TIF) - Cooksville		
Level of Impact	Problems and Issues	Policy Directions
Very Strong	■	-
Strong-very	●-■	• Problems facing a (TIF/TIEF) plan like legal factors (Municipal Act).
Strong	●	-
Moderate	▲	• Problems facing a (TIF/TIEF) plan – Institutional or organizational factors.
Very Weak	○	• After site redevelopment, the expected property tax increments will be low to finance site remediation.
Overall Average	Moderate-Strong (▲-●)	Strong-very Strong (●-■)

8.3.8 Key Participants’ Interview Responses on the Overall Planning Process Multiple Component Process – Cooksville Project

As outlined by the project Developer, the main components of the project planning process were primarily the environmental, physical and the economic components; however, project financial feasibility was the key to start the project. In addition, the political component was also important as represented in the strong political support by the City who was collaborating collectively to achieve a good successful project for all parties.⁴¹⁷ Project planning and evaluation was essentially in the framework of integrating good land use planning, economic viability, and decommissioning constraints of the site remediation process.⁴¹⁸ Planning within the City included interdepartmental coordination and integration.⁴¹⁹ Project evaluation was in a way multi-stakeholder including the Developer, City approval authority, as well as the local community. Tradeoffs were made among multiple component objectives in order to achieve stakeholders’ agreement including the following:⁴²⁰

- Flyash area transformed into a park and required land area contribution (City- Developer)
- Built form to meet residential density requirements (City-Developer-Community)
- Storm water pond the City wanted to implement (City-Developer)

⁴¹⁷ Interview with the City Councilor, 2000.

⁴¹⁸ This was conveyed by the project Developer. Regarding the social component, he mentioned it was not of major concern in the process (Key Participants’ Interviews, 2000).

⁴¹⁹ Interview with the City project planner (Key Participants, Interviews, 2000).

⁴²⁰ As outlined by the Developer, tradeoffs were viable when the gap between stakeholders’ views and/or objectives was relatively small. However, tradeoffs were not viable when the gap was big (Key Participants’ Interviews, 2000).

The main future monitoring issue was for potential flyash leachate which was the responsibility of Ontario Hydro. An external monitoring issue was methane gas leachate from the adjacent City Public Works Yard, which was the responsibility of the City/Region.

The planning process was more incremental in terms of addressing the components (environmental-physical-economic planning) as well as the project site (Quarry & old factory areas), and then to see how to fit the pieces together as the project progressed. Also, there were contingencies in land use decision making based on the type and process for site remediation as in the community park on a transformed landfill site.⁴²¹In essence, these contingencies represented a form of linkages in the decision making process.

Given the complexity of the context, evaluation within and among components was mostly a mind process.⁴²² In general, evaluation did not include a form of multiple criteria framework. However, reaching agreement on decision making was easily made because of multi-stakeholders' collaboration and commitment in the process including public consultation.

Impact Evaluation of Problems & Selected Policy Directions – Overall Planning Process⁴²³

The impact level for most of the stated problems, especially the interactive issues, ranked relatively high and with an overall average rating of “▲-● moderate-strong” (Exhibit 8.12). This indicated their relative importance to this case study. The highest impact level was for “*interactive problems between environmental contamination and social equity/security*” that ranked “●-■ strong-very strong”. Also, the “*interactive problems between environmental contamination and stakeholders’ conflicting objectives*” ranked “● strong” and the “*interactive problems between environmental contamination and project financial feasibility*” ranked “▲-● moderate-strong”. These results were in a way consistent with the verbal responses by Key Participants to the taped open-ended questionnaire.

Exhibit 8.12: Impact Levels of Problems and Policy Directions: Overall Planning Process - Cooksville			
Level of Impact	Problems and Issues		Policy Directions
Strong-very Strong	●-■	<ul style="list-style-type: none"> Interactive problems between environmental contamination and social equity and security issues. (Environmental-Social) 	<ul style="list-style-type: none"> Having a clear planning vision. Commitment to planning especially in dealing with large
Strong	●	<ul style="list-style-type: none"> Interactive problems between env. contamination & stakeholders’ conflicting objectives. (Environmental-Political) 	-

⁴²¹ Interview with the private planning consultant (Key Participants’ Interviews, 2000).

⁴²² Interview with the City Councilor (Key Participants’ Interviews, 2000).

⁴²³ See Appendix A8.1 and Appendix A8.2 for complete responses from Key Participants. The response rate for the unit of the overall planning process was 33% for problems impact and 44% for policy directions of the total number of actual questions for this component.

Moderate-Strong	▲-●	<ul style="list-style-type: none"> Interactive problems between environmental contamination and project feasibility & marketability. (<u>Environmental-Economic</u>) Difficulty of developing future site redev. vision due to stakeholders' multiplicity and varying views. 	-
Moderate	▲	<ul style="list-style-type: none"> Interactive problems between environmental contamination and physical declining image & blight. (<u>Environmental-Physical</u>) Difficulty of developing future site redev. vision due to multiple component problem complexity. Difficulty of integrating multiple planning sub-processes including site remed., physical planning, etc 	<ul style="list-style-type: none"> Adopting an integrative planning framework to link the major planning sub-processes including site remediation, physical planning and design, etc.
Overall Average		Moderate-Strong (▲-●)	Strong (●)

The policy directions/guidelines that ranked high were “*having a clear planning vision*” and “*commitment to planning ...*” with a rating of “●-■ strong-very strong” impact. While “*adopting an integrative planning framework to link the major planning sub-processes ...*” ranked “▲ moderate” impact, which was in a way consistent with the “*difficulty in integrating multiple planning sub-processes ...*” that also ranked “▲ moderate” impact.

8.4 CASE STUDY FINDINGS AND CONCLUSIONS - Cooksville Quarry

The findings for the case study are outlined according to the eight research units of analysis, which are essentially broken down into the components of the overall planning process. Within each component, the findings include the pertinent planning sub-process including linkages.⁴²⁴

8.4.1 Environmental-Legal Component: Site Remediation Planning Sub-process

The problem of site environmental contamination and required remediation was complex in various aspects which required a phasing plan to resolve the problem in viable packages. This complexity was exemplified in the following aspects:

- Multiplicity of environmental contamination types and required decontamination
- Size of the project site that included environmental contamination
- Extensive time required to complete each phase including government approval

Multiplicity of the problem elements was exemplified in the different types of environmental contamination and required remediation, which primarily included flyash land fill within the cut Quarry area, soil contamination at various deep levels as a result of brick manufacturing, real and potential ground water contamination from the mentioned contaminants as well as other external sources.⁴²⁵ Another consideration was the real and potential impact of

⁴²⁴ Findings of Key Participants' interviews including impact evaluation of problems and policy directions were discussed in the previous Section 8.3.

⁴²⁵ One external source of contamination was the environmental problems at the adjacent City Public Works yard that emerged during the redevelopment planning process.

existing environmental contamination and decontamination levels at the Mary Fix Creek that runs through the project site. Environmental contamination covered a considerable area Size of the site and at various levels. However, the physical location of each type of environmental contamination was in a way defined, which also helped in defining the physical subdivision for the phasing plan. Finally, the process required an Extensive Time to complete the government approval process and actual site remediation for each type of contamination. A brief outline of the phasing plan for site remediation is provided in Exhibit 8.13.

Exhibit 8.13: Environmental Site Remediation Process Including Site Subdivision/Phasing Plan				
Site Subdivision into Parts/ Phases			City Owned Site	
Part-A (Phase-I) (East Side)		Part-B (Middle)	Part-C (West Side)	Adjacent Site
Quarry Site	Mary Fix Creek	Phase-II		<ul style="list-style-type: none"> • Used by Public Works Dept.
Main Problems & Issues				
<ul style="list-style-type: none"> • Quarry Pit. • Site/Land Deformation • Flyash Landfill Area. • Site Remediation: Compliance with Section 46 of EPA 	<ul style="list-style-type: none"> • Mary Fix Creek. • Storm Water Management Facility 	<ul style="list-style-type: none"> • Contamination from Brick Factory. • Mainly Deep Soil Contamination. • Ground Water Contamination. • Site Remediation: 	<ul style="list-style-type: none"> • Waste Landfill. • Methane gas. • Chloride-ground water contamin. • Noise & gas emission from trucks 	
Site Remediation Approach				
Section 46 of EPA (Landfill Site)		Generic Full Depth (1989) (Developed During Project)		
Level -1 ESA Assessment of Historical Operations	Level -1 ESA <ul style="list-style-type: none"> • Done within Part-A 	Level -1 ESA (Environmental Site Assessment) <ul style="list-style-type: none"> • Assessment of Historical Operations 	Level -1 ESA <ul style="list-style-type: none"> • Done by same private Env. Consultant for site remediation but for the City. 	
Level -2 ESA <ul style="list-style-type: none"> • Characterization of Surface Conditions 		Level -2 ESA <ul style="list-style-type: none"> • Characterization of Surface Conditions 		
Remedial Work Plan <ul style="list-style-type: none"> • SSRA for engineered fill and clay cap • Implementation of the Remedial Plan 		Remedial Work Plan <ul style="list-style-type: none"> • Implementation of the Remedial Plan 		
		Verification & Testing <ul style="list-style-type: none"> • To Confirm Adequacy of Clean-up Plan 		

The planning process was essentially following the rational decision making stages of Analysis (ESA-1 and ESA-2), Synthesis (Remedial Work Plan), Evaluation (City/MOE approval on the plan), Implementation, and Monitoring for potential risks.

Connectivities/Linkages in the Environmental Site Remediation Process - Cooksville

Some of the main strong linkages to the environmental sub-process were as follows:

- Site Contamination and Remediation Cost versus Future Land Use
- Within Site Contamination/Remediation versus Surrounding Environmental Conditions
- Site Contamination/Remediation versus Interests of Main Stakeholders
- Environmental Approval & Site Remediation versus Development Approval Process
- Site Contamination and Remediation Cost versus Future Land Use: The location of the

flyash landfill within the Quarry pit and the required environmental remediation in compliance with Section 46 of the EPA as a landfill site resulted in the decision to locate the Community Park and recreation within this area.⁴²⁶ In addition, future residential and commercial land uses implied different cleanup criteria and cost for site remediation.⁴²⁷

- Within Site Contamination/Remediation versus Surrounding Environmental Conditions: Site contamination within the Cooksville project area had an effect on conditions of ground water which extends beyond site boundaries. Also, after site remediation there was potential effect of leachate from flyash area on ground water and on Mary Fix Creek. Long term monitoring was decided as part of the site remediation plan, which was part of the development agreement for the project. In addition, there was an impingement from the adjacent City owned waste landfill site on the Cooksville project.⁴²⁸ Even though these problems were not part of the project site and the Owner/Developer was not responsible for them, remediation measures had to be taken in order to approve the Cooksville project.

- Site Contamination/Remediation versus Interests of Main Stakeholders: The interests of the government bodies (Provincial, Regional, and City) were both to encourage redevelopment of contaminated sites as well as to insure a proper site remediation plan in accordance with the EPA and other regulations. They were also interested in achieving a proper land use redevelopment plan. The Developer's interests were to achieve a feasible package for site remediation and redevelopment, mainly cost effective remediation cost and financially feasible project. In addition, the Developer aimed at reducing future liabilities and improving the perception of the new redevelopment for marketing purposes. The interests of local residents and

⁴²⁶ Section 46 of the EPA stipulates that remediation of landfill sites is for open space/park use.

⁴²⁷ Site remediation was based on different clean-up criteria and based on type of future land use (residential, commercial, or industrial) which implied different clean-up cost (MOE, February 1989).

⁴²⁸ Methane gas was generated at the site which would affect the proposed residential uses. Also, the site was used to store road salt on the ground which resulted in increased salt content in ground water within the project site.

the public at large included monitoring of potential health/environmental risks associated with site remediation, provision of public services, and achieving better community environment.

- Environmental Approval & Site Remediation versus Development Approval Process: Environmental approval for site remediation was a milestone in the development approval process as well as in the final development agreement between the City and the Developer. Environmental approval increased the time for development approval. Also, environmental approval included a definition of legal liabilities among related stakeholders.⁴²⁹

An important conclusion is that the outlined linkages form multiple chain like “site contamination and legal liabilities - site remediation cost - future land use”, in addition to regulatory requirements.

8.4.2 Physical-Functional Component: Physical-Functional Planning Sub-process Land Use Planning, Site Subdivision Planning, Urban Design & Architecture

The physical-functional planning process was exemplified at several interrelated and hierarchical spatial levels including land use planning which was mainly at City Official Plan and Secondary Plan levels, subdivision planning and urban design at project site level, and architectural design level within subdivisions (Exhibit 8.14). The contextual applications of these levels was also related to the physical scale of the pertinent area of application as well as the level of information detail that was given or required for each level.

<u>Exhibit 8.14: Physical-Functional Planning at Multiple Spatial Levels & their Contextual Application</u>			
	Physical-Functional Planning Sub-processes & Related Levels	Case Study Contextual Application	Government Plans Regulatory/ Legal Basis
1.	Land Use Planning - City and District levels - performed by the City approval authority	<ul style="list-style-type: none"> • Official Plan Amendment. • Revised Dundas-Fairview Secondary Plan • Cooksville Redevelopment Study • Rezoning 	<ul style="list-style-type: none"> • Planning Act • Official Plan. • Secondary/District Plan • Zoning By-laws
2.	Site Subdivision & Urban Design - Project site level - Performed by the Developer and his team	<ul style="list-style-type: none"> • Site subdivision. (overall site) • Urban design guidelines and principles • Residential subdivision plan. • High density residential massing design • Commercial site planning and design • Street planning and design • Park planning and design (by others) • Campus site planning & design (by others) 	
3.	Architectural Building Design - Subdivision level - Performed by builder’s team	<ul style="list-style-type: none"> • School design. • Commercial and residential design 	<ul style="list-style-type: none"> • Building Code.

⁴²⁹ Regarding site remediation of the flyash area and reuse as a park, three separate indemnification agreements had been entered between i) the Developer and the Crown ii) the City and MOE and iii) Ontario Hydro and the Developer (MOE February 3, 1990, Environmental Protection Act, Section 46 Approval for the site remediation plan for the flyash area to be used as parkland).

The physical-functional planning sub-process was performed by the project Developer and his team of Consultants as well as by the City and related public authorities. The physical planning consultant commissioned by the Developer played an important role in preparing the project site plan of subdivision as well as urban design guidelines. The professional team at the City approval authority (including physical planners, urban designers and architects and others) collaborate on preparing and revising the City Official Plan, Secondary Plans, and urban design guidelines. Based on the Cooksville Study prepared by the City, the pertinent District/Secondary Plan was revised during the project approval process.⁴³⁰ The Developer had to apply for an Official Plan amendment and rezoning to allow for changes in the type and size of land use functions. In essence, The Developer's site plan of subdivision and the City's District/Secondary Plan evolved simultaneously and interactively. The main issues that characterized the physical planning sub-process are outlined in the form of connectivities in the process.

Connectivities/Linkages in the Physical-Functional Planning Sub-process

The connectivities between the physical-functional component and the environmental component were previously discussed.⁴³¹ The other main linkages were as follows:

- Cooksville project site functions versus surrounding land use functions
- Size and Distribution of land use functions versus marketability and economic feasibility
- Compatibility or incompatibility of land use functions versus site edges
- Land use functions versus project phasing
- Cooksville Project Site Functions versus Surrounding Land Uses/Neighborhoods

(Physical-Physical): The integration of the project site with the surrounding neighbourhoods was a sought objective in the planning process. The integration basically focused on the possible links that can be incorporated in the planning and design of the project site and its interface with the surrounding communities. The idea of extending Hillcrest Avenue (Street A) from the adjacent community on the east side and to design it running through the entire project up to Mavis Road is a strong physical and functional connection between the new residential community and the surrounding communities. On the south and west sides, major arterial roads form the interface at those edges. On the north side, and even though CPR formed a strong barrier, an idea was proposed to have a pedestrian link with the residential community on the north side. However, the idea was economically not feasible and was not implemented.

⁴³⁰ The District Plan for the Cooksville area included the project site (Key Participants Interviews, 2000).

⁴³¹ The linkages included "site remediation cost versus future land use" (Environmental-Physical).

- Size and Distribution of Land Use Functions versus Marketability & Economic Feasibility (Physical-Economic): Market economic feasibility analysis affected the size and location of commercial/business centers and residential functions. Commercial market analysis for the project was performed by the private Developer as well as by the City to ensure that the proposed size for the commercial activities was appropriate. Commercial/business functions like the community neighborhood commercial centre were affected by visibility and accessibility from the main highway. Such functions were attracted to the main street intersections. The proposed size of residential development in terms of the total number of units was about half the total number required in the Official Plan because of marketability.⁴³²

- Compatibility or Incompatibility of Land Use Functions versus Site Edges: Site edges and adjacent functions played an important role in the definition of functions and treatment along those edges. Along the north edge near the CPR rail line, a buffer zone was provided between the residential area and the CPR right of way. Also, on part of the west side adjacent to the City Public Works site, a buffer zone separated the new residential area from the environmental effects of the adjacent site. On the south side along Dundas Street, there was visual/privacy impact from the initially proposed high-rise residential that was overlooking the residential community on the south side of Dundas Street. The issue was later resolved between the Developer and the community resident at the OMB.

- Land use Functions versus Project Phasing: Due to the large size project and complexity in the site remediation process outlined earlier, the project was planned to be implemented in four phases. Each phase formed a development package by itself and to be implemented by a potential builder/investor.

8.4.3 Economic Component: Economic Planning Sub-process – Financial Planning and Marketing - Cooksville Quarry

Project financial planning and marketing was primarily done by the project Developer.⁴³³ However, market studies for the neighbourhood commercial centre were prepared during the development approval process by both the market Consultant for the Developer, as well as by the

⁴³² Interviews with the City Councilor and project Developer (Key Participants' Interviews, 2000).

⁴³³ Public sector financial feasibility for a project is not performed by the City approval authority. However, economic and socio-economic indicators are employed to evaluate the project from a public point of view like increase in property value and tax revenues as well as job generation (Key Participants' Interviews, 2000). Anyway, and in order to evaluate the overall project, a financial feasibility framework should include the public sector cost-benefit in terms of increased tax revenues and other development added values as compared to related costs.

City to insure the appropriate size and location of this commercial centre within the city.⁴³⁴ Project financing was from private financial institutions without government funding. In the beginning and prior to site remediation, banks were hesitant to finance the project due to perception of risks associated with contamination. The project was considered as economically feasible by the Developer both for site remediation and market value of the land, as well as for overall project development economic feasibility.⁴³⁵ The risk was primarily carried by the Developer. No environmental insurance was obtained for site remediation.⁴³⁶

In this project, the Developer was dealing with Builders who were also involved in the marketing process. In general, project marketing was not performed by the Developer until 80% of site remediation was done and project approval process was substantially completed. This was partially due to public perception of a contaminated site and preference by the Developer and Builders to delay marketing in terms of having potential purchasers coming to the site.⁴³⁷

Connectivities/Linkages in the Economic Component: Financial & Market Analysis

The linkages between the economic planning component versus the physical and environmental components were previously outlined.⁴³⁸ The linkages with the other planning sub-processes included the following:

- Financial risks and liability versus experience in contaminated sites redevelopment
- Project marketability versus perception of site contamination & remediation
- Cost of site remediation versus stakeholders decisions & project feasibility
- **Financial Risk and Liability versus Experience in Contaminated Sites Redevelopment:**

The fact that the Developer had prior experience in redeveloping similar contaminated sites gave confidence that site clean-up was feasible and it turned out to be that after clean-up the site had the same market value of the land for the same year.⁴³⁹

⁴³⁴ Even though market studies showed positive marketability, no one of the potential investors or users wanted to be the first on site (Interview with the project Developer, 2000).

⁴³⁵ As outlined by the Developer, cost of site remediation and site grading was about \$13 million dollars and the total site area was 180 acres, out of which 140 acres were considered as net usable land. This gives a unit cost of about \$92,000/acre for site remediation, which brings it to market value in 1996 (Key Participants' Interview, 2000).

⁴³⁶ The Developer was confident that the project was economically feasible and the risks were manageable since they had done a similar project within the same city. Environmental insurance to cover site remediation cost was not available at that time and it was not needed any way (Key Participants' Interviews, 2000).

⁴³⁷ As outlined by the Developer, during site remediation and site re-grading, there were so many operations within the site that were not favourable for having the potential purchasers coming to the site for marketing purposes. Also, the Developer did not need the sales in advance. The objective was to advance the site remediation and the approval process far enough before getting potential purchasers on site (Key Participants' Interviews, 2000).

⁴³⁸ These included the following: • *Site remediation cost versus level of site contamination*, • *Site remediation cost versus future land use*, • *Size and distribution of land use functions versus marketability and economic feasibility*.

⁴³⁹ Interview with the Developer (Key Participants' Interviews, 2000).

- Project Marketability versus Perception of Site Contamination & Remediation: Negative perception of a contaminated site had delayed project marketing. The Developer and the involved builders were keen that no marketing (in terms of having prospective purchasers on-site) should start until the site remediation process and site grading was substantially completed in order to avoid negative perception from the extensive operations of the remediation process.⁴⁴⁰ In a normal condition, it is recommended to initiate the marketing process from the early beginning in order to assist in project financing and to ensure having the prospective purchasers/users for the new development.

- Cost of Site Remediation versus Stakeholders Decisions & Project Feasibility: Cost of site remediation can affect project feasibility and hence decisions of stakeholders. This issue was also interlinked with the proposed future land use and stakeholders' perception for contaminated sites. A good example was the designation of the neighbourhood park on the flyash area. In the beginning, the City had objected to this designation and proposed a different location which would ultimately affect residential and commercial land use designation.⁴⁴¹ For the Developer, this change might result in a non feasible package because it would imply higher site remediation cost because of more stringent land use clean-up criteria (residential or commercial) in addition to higher building costs later on. Also, it would be difficult to market the remediated flyash area for residential or commercial use.

8.4.4 Social Component: Social Planning Sub-process – Cooksville Quarry Social Equity & Safe Community Planning

The redevelopment process was driven by the Developer. Even though the process was not community based, there was considerable community involvement represented in public meetings where local residents had stated their needs and community objectives. Also, local residents had the chance to object on several issues of the new site plan of subdivision.

In general, the social planning sub-process was no defined. However, and in addition to transforming the blighted contaminated site into a vibrant community, the process included several social objectives that were required as part of development approval for the new residential community. These objectives included the provision of affordable housing (25% of

⁴⁴⁰ According to the Developer, marketing started after 80% of site remediation was completed (Key Participants, Interviews, 2000).

⁴⁴¹ The City was concerned about site contamination. Also, the City thought that area allocation for park space should be more in this condition given it is on a flyash landfill site. The issue was resolved by increasing the park area allocation (Interview with the project Developer, 2000).

total number of units), elementary school, community Park including recreational facilities and other community services. In addition, site redevelopment resulted in significant socio-economic achievements including job creation, increased values of adjacent properties and tax base.

The redevelopment process did not include a program to ensure access of local residents and laid off employees from former brick factory to newly generated jobs.⁴⁴² Anyway, there were no major social in-equity issues raised by the participants. Also there were no social safety issues since the site was secured and monitored by the owners. In conclusion, the redevelopment process resulted in an added value to all major stakeholders including local residents.

Connectivities/Linkages in the Social Component and Planning Sub-process

The main connective links, whether positive or negative, between the social planning component and other components included the following:

- Community and city objectives versus perception of a contaminated site
- High rise buildings versus visual/social privacy of surrounding residential communities
- Community & City Objectives versus Perception of a Contaminated Site: There were

positive and negative links between City and Community objectives vis-à-vis perception of a contaminated site. The positive link was both City and community interests and aspirations were in transforming the blighted contaminated site into a vibrant residential community. The negative link was that the main community functions including the location of the Public Park and recreational facilities were on the remediated flyash landfill area, which required continuous future monitoring for potential risk. The perception of future environmental and health risks was one of the most critical issues during the development approval process.⁴⁴³

- High Rise Buildings versus Social/Visual Privacy of Surrounding Residential Communities: Social privacy was an issue in terms of high rise residential buildings overlooking surrounding low rise residential areas, mainly the community south of Dundas Street. The opposition came from local residents against the proposed high-rise residential buildings

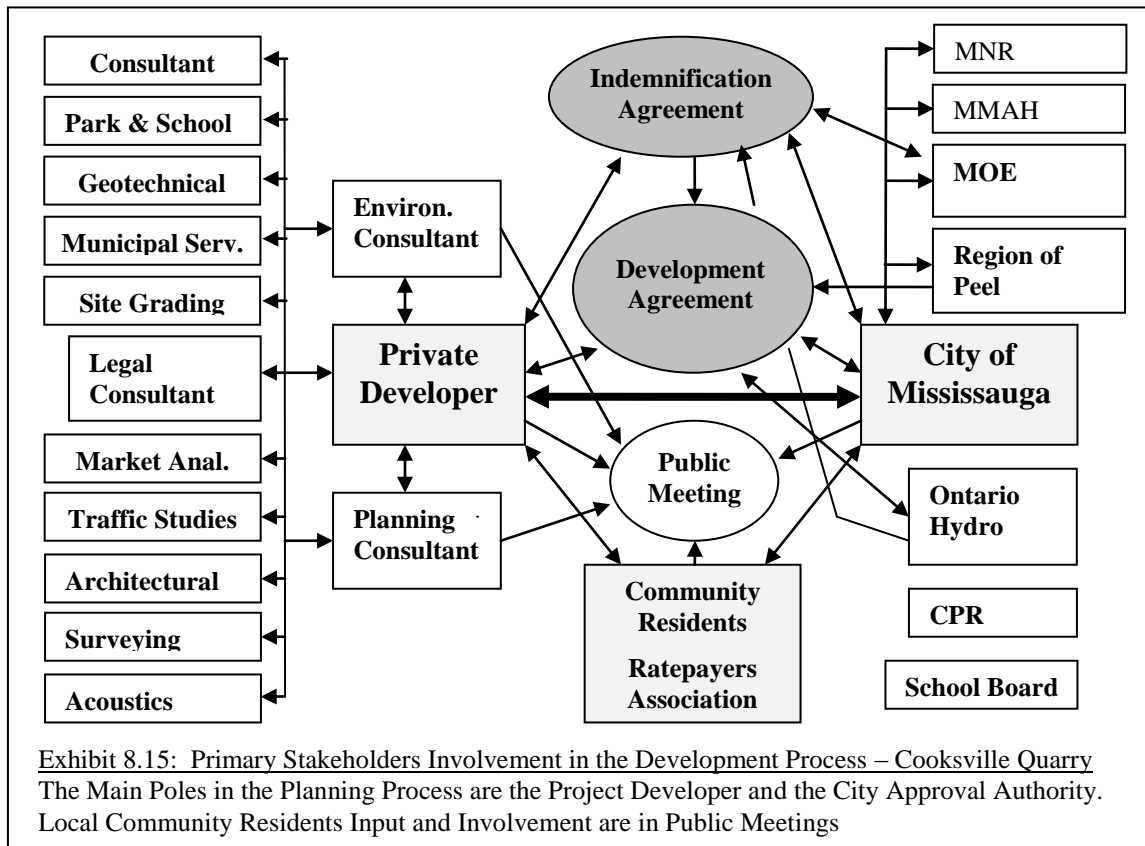
⁴⁴² There were 100 employees in the former brick factory who were laid off as a result of plant closure. As stated by the Developer, the new development (only Home Depot and Loblaw) would provide more than five times the previous number of jobs (Key Participants, Interviews, 2000).

⁴⁴³ Initially, the City did not accept the location of the Public Park on the remediated flyash area and proposed another location at the northwest corner (Developer's communication with the City). There were prolonged planning reviews and discussions between the Developer and the private consultants on one side and the City, the Region, MOE, and the local community on the other side, until it was finally accepted by the City and the Region. Also, and as part of the Development Agreement, there was a four party indemnification agreement and Ontario Hydro and the Developer indemnified the City and the Province from any future liability of the flyash area.

overlooking an adjacent community and the issue was finally resolved at the OMB by modifying building form and avoiding building height at main street edges.

8.4.5 Political-Organizational Component: Political-Organizational Planning Sub-process Collaborative & Organizational Planning & Partnership - Cooksville Quarry

In general, the main stakeholders can be classified within three main groups including the public sector approval authority, private sector Developer and his team, and the local community residents and groups. The organizational set-up for stakeholders and decision making was separately controlled within each group and based on different set of rules, regulations and/or agreements among stakeholders within each sector. Stakeholders within the public sector included several government entities.⁴⁴⁴ The public sector development approval process was the regulating and organizing framework among the three groups of stakeholders in achieving project redevelopment (Exhibit 8.15).



⁴⁴⁴ The primary Stakeholders in the public sector included the following: 1. City of Mississauga, for development approval process, 2. Region of Peel, for development approval process, 3. Ministry of Municipal Affairs & Housing (MMAH), 4. Ministry of the Environment (MOE formerly MOEE): for approval on-site remediation, 5. Ministry of Natural Resources (MNR), 6. Ontario Municipal Board (OMB): for mediation on certain conflicting issues, 7. Credit Valley Conservation Authority (CVC), 8. Other related Stakeholders that may be grouped within the public sector included: 9. Ontario Hydro, 10. Canadian Pacific Rail (CPR), 11. Dufferin-Peel Separate School Board

Since the project was privately owned, the Developer-Owner played a key role in the organizational set-up of his team of needed professional consultants, as well as a key role in the primary decision making in the redevelopment process. The Developer's team included more than 20 professional consultants in various disciplines. The primary consultants were the urban planning consultant who was responsible for the physical planning and site subdivision process, the environmental consultant who was responsible for site remediation and related issues, and the legal consultant who was responsible for all legal liability issues in the development process including the development approval agreement between the Developer and the City and the four party indemnification agreements related to the future liability for remediated flyash area.

The local community residents were represented by the Cooksville Ratepayers Association. The local community residents were involved in public meetings arranged by the City to review the project site plan of subdivision as it evolved. Even though residents' involvement was limited to public meetings, they had the power to express their views and objectives and had influenced decision making in certain issues.

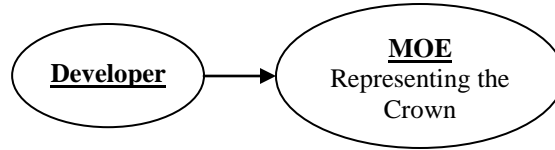
Connectivities/Linkages in the Political/Organizational Component Planning

Connectivity can be in a negative form like conflicts between/among stakeholders and/or in a positive form like stakeholders' partnership, agreement or common objectives. The main conflicts and pertinent resolutions among stakeholders were as follows:

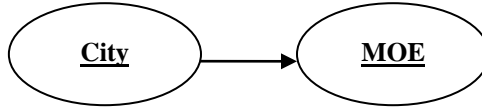
- City-Developer-Ontario Hydro-MOE: There was conflict on site remediation of the flyash area and future risks and liability. The conflict was finally resolved in the form of four party indemnification agreements in addition to future ground water monitoring.
- City-Developer: The disagreement was on the proposed size of residential development (total number of units) which was half of the number of units required in the Official Plan. The Developer's justification was based on marketability, which was finally accepted by the City.
- Developer-Community: The conflict was on the proposed high-rise buildings overlooking neighbouring communities (social privacy). This was resolved by modifying building form.

The project included two main agreements among stakeholders.

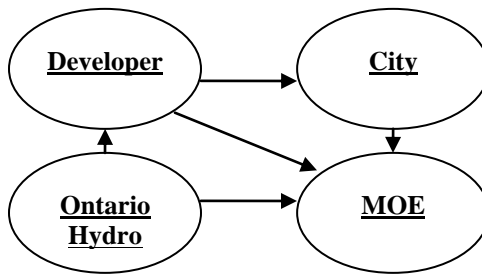
1. The indemnification agreements for flyash liability: This included three separate indemnification agreements among the following stakeholders:
 - i. The Developer and Her Majesty the Queen in the Rights of Ontario as represented by the Minister of the Environment (MOE). In this agreement, the Developer was indemnifying the Crown.



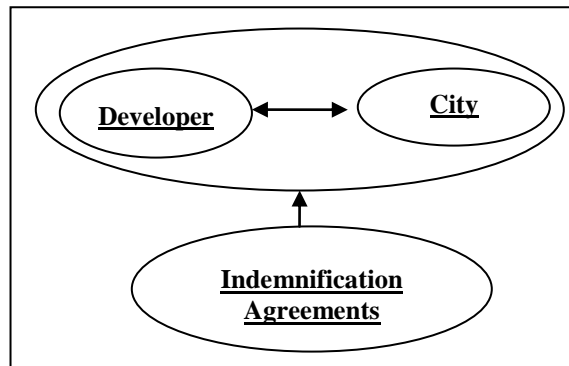
ii. The City of Mississauga and MOE.



iii. Ontario Hydro, Developer, the City, and MOE: in this agreement, Ontario Hydro indemnified the Developer and the Developer indemnified the City and MOE.



2. The Overall Development Approval Agreement between the City and the Developer. The Indemnification agreements were part of the Development Approval Agreement.



Overall Development Agreement

8.4.6 Project Implementation Planning and Phasing - Cooksville Quarry

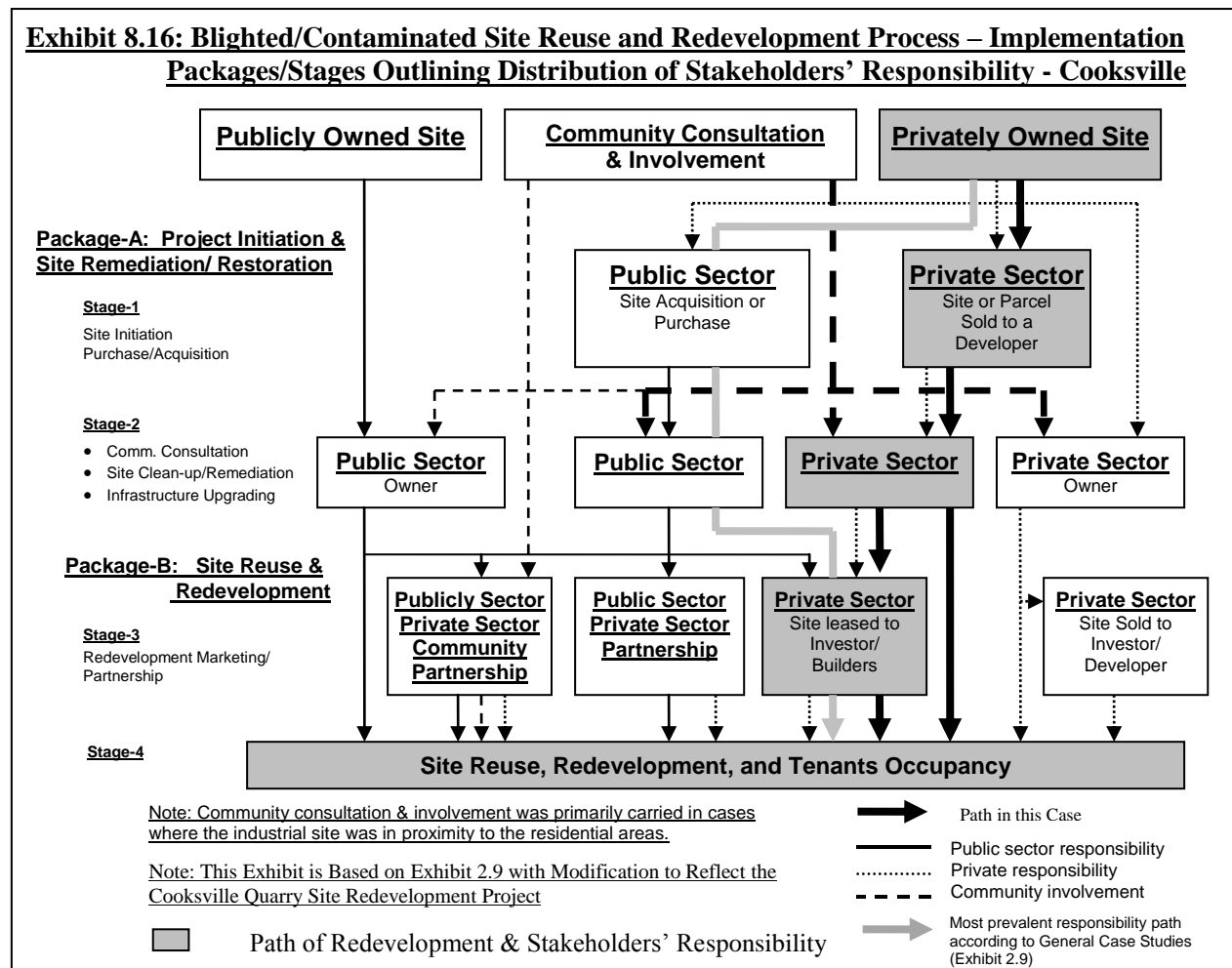
Implementation planning and phasing was represented in three main ways in the overall redevelopment planning and as follows:

1. Phasing of Implementation Plan for Overall Site Remediation and then Site Redevelopment: This was based on completing all site remediation as the first phase (or Package-A) and then to start marketing and site development as the second phase (or Package-

B). Exhibit 8.16 outlines these phasing packages. Each of these two packages had its own phasing of implementation plan and as follows.

2. Phasing Plan for Overall Site Remediation: This included two area phases for site remediation which was based on the different nature of site contamination. Phase-I of site remediation included the Quarry area and flyash fill. Phase-II of site remediation included the brick factory and the administration building areas.⁴⁴⁵

3. Phasing of Implementation Plan for Overall Site Redevelopment: This phasing plan included three phases for the overall site redevelopment. Phasing was based on primarily implementing the needed public uses first, like the neighborhood park and the school, in addition to the supporting residential and commercial uses. During the development approval process, the Developer purchased an adjacent site and planned to redevelop it as a fourth phase.⁴⁴⁶



⁴⁴⁵ See also Exhibit 8.4 showing the two phases for site remediation on a site plan of subdivision.

⁴⁴⁶ See also Exhibit 8.3 showing the four phases of site redevelopment on a site plan of subdivision.

Stakeholders' responsibility for the different packages and stages was primarily performed by the private Developer for Package A (Site Remediation & Restoration) as well as for part of Package B that included preparation and development approval of the site plan of subdivision. Also, the Developer was responsible for marketing subdivisions to potential investors and builders. Actual development within site subdivisions was the responsibility of builders based on an agreement with the project Developer. The shaded area in Exhibit 8.16 outlines the path of stakeholders' responsibility for each package and stage in the process.

8.4.7 Key Policy Direction: Tax Increment Financing – TIF/TIEF - Cooksville Quarry

The objective is to evaluate whether future tax increments on the site (and surrounding) can potentially finance the cost of site remediation. The project Developer outlined that the new redevelopment would have a huge impact on both property values and property taxes. In addition, the cost of site remediation can be captured by property tax increments within a period of less than five years.⁴⁴⁷ Also, the Cooksville site redevelopment had an impact on surrounding properties where land value would be doubled.⁴⁴⁸

Considering the positive future tax increments on surrounding properties and tax increments on the Cooksville site redevelopment, the cost of site remediation will even be covered in less than five years. Usually the TIF/TIEF program gives a period of ten years or more for utilizing future tax increments as an incentive for brownfield redevelopment.⁴⁴⁹ This will increase the economic viability of such a program in financing the initial cost of site remediation. The TIF/TIEF program can be a viable tool in concept and from an economic point of view. However, there are still other issues to be resolved in order to apply this policy, mainly to address the conflict with the notion of bonusing that is prohibited in the Municipal Act.⁴⁵⁰

8.4.8 Overall Redevelopment Planning Process – Cooksville Quarry

The overall planning process was represented at two main poles including the project Developer and the public approval authorities, in addition to the local community residents that were involved in the public consultation meetings. The private Owner-Developer initiated the project and accordingly played an important role in the site redevelopment planning process. The

⁴⁴⁷ As outlined by the Developer, property taxes for the Cooksville project increased more than 10 times the assessment on the land. The cost of site remediation was about \$13 million and property taxes for the Cooksville site increased from \$500,000 before redevelopment to \$6.5-7 million after redevelopment. Future tax increments would cover the cost of site remediation within less than five years (Key Participants' Interviews, 2000).

⁴⁴⁸ The history of property assessment and pertinent real estate taxes before and after site redevelopment can outline a clearer picture for actual tax increments. This is a potential research that is beyond the scope of this thesis.

⁴⁴⁹ MMAH, 2000a&b.

⁴⁵⁰ MMHA, 2000b.

Developer's planning process was centrally influenced by project financial feasibility and marketability. The City was responsible for regulatory planning including the development approval process. The City played an important role in revising the "Dundas-Fairview" Secondary Plan based on the "*Cooksville Redevelopment Study*" in order to establish the basis for project approval. The MOE was directly involved in the environmental approval process.

Characteristics of the Overall Planning Process

The overall planning process can be characterized as follows:

1. **Multiple-Component Planning Process:** The overall planning process was a composite of multiple planning sub-processes, including physical-functional planning (land use planning, site subdivision planning, urban design), environmental planning (site remediation planning), economic financial planning and marketing, and political-organizational planning (development approval process, public consultation process). The social planning sub-process, even though not explicitly defined, was represented in terms of achieving social and socio-economic objectives.

2. **Interactive Planning Process:** Given case study conditions, planning sub-processes had certain interactive effects within and between components and at various intensities. The interactive effects formed certain connectivities or linkages in the process. Connectivities among components and pertinent planning sub-processes were in various forms and combinations. The following are examples of some of the strong connectivities:

- **Environmental-Physical-Economic:** Environmental contamination/remediation affected the type of land use as in the case of the Quarry with flyash that was transformed into a community park. Also, type of site contamination and proposed land use affected type and cost of site remediation. For example site remediation for the Quarry flyash area would be different and costlier if the future use was changed to residential or commercial.
- **Environmental-Physical-Political:** There was conflict between the Developer on one side and the City and community on the other side regarding the location of the community park on top of the remediated Quarry flyash area.
- **Physical-Functional-Economic-Political-Social:** There was conflict between the City and the Developer regarding the total number of residential units to be included in the development. The Developer was justifying the lesser number of total residential development on the basis of market feasibility while the City was referring the requirements of the Official Plan. Also, there was conflict between community residents and the Developer regarding height of residential buildings overlooking their neighbourhood, basically the notion of visual/social privacy.

3. **The Planning Process was Represented at various Spatial Levels:** The spatial levels included the overall site, the subdivision, in addition to the surrounding district and city levels.

The overall site level included land use subdivision planning and urban design guidelines, as well as addressing site edges. The subdivision level included architectural building design. The surrounding district and city levels were represented in the District/Secondary Plan, City Official, Zoning By-laws, and related policy statements and recommendations. Planning at all these levels are interrelated and need to be integrated.

4. Planning Process with a Multi-Stakeholder Setting: Stakeholders may be classified into three main groups including the private Developer and his team of consultants, the public approval authorities (mainly MOE and the Municipality), in addition to community residents and interest groups. The key elements for project success in this regard was City-Developer collaboration and concurrent planning and review as well as continuous community involvement in the process. In addition conflict resolution and related agreements were made on a win-win-win basis for the three main stakeholders' groups.

5. Multiple Component Evaluation and Optimization Process: Both the private Developer and the City had to consider multiple-component evaluation and trade-offs. The City traded-off the reduction in the residential development size as well as accepting the location for the community park on the Quarry flyash area. The Developer fulfilled all requirements for site remediation and provided social and educational services including an elementary school site.

6. Incremental Planning in Terms of Phased Implementation for Planning Sub-processes: In this case, all site remediation was performed as a first package/phase and then physical site redevelopment was performed as the second package/phase. Implementation for each of the environmental sub-process and physical planning sub-process was organized in phases. The environmental site remediation sub-process included two main phases and went parallel with the government approval sub-process. Implementation for the physical site land use subdivision plan included three original phases and a fourth one added later. The priority was to implement the public functions first including community Park, the elementary school, Mary Fix Creek area, in addition to the single family residential and supporting convenience commercial functions.

7. Long-term Environmental Monitoring: The project included long term monitoring for environmental issues like flyash area and the adjacent land fill site owned by the City.

8.5 Current Status of the Cooksville Quarry Project - Mississauga⁴⁵¹

In general, the Cooksville Quarry project was successfully implemented. The implemented plan included some changes to the original plan and they were as follows:



Exhibit 8.17: Photos of Cooksville Quarry Site Redevelopment Project (August 10, 2009)

- The housing market could not sustain the high density high-rise residential buildings (8 story, 400 apartments/condominiums) originally planned as part of phase-3 as well as for the high density residential (16 stories) for phase-4. To meet market demand for type of housing and city requirement for high density (lower end) another form of housing was proposed for phase-3 which included four story walk-up residential units in a row housing building form. The new form of housing was relatively lower in density compared to the original plan and city vision. However, the city accepted the lower end of its high density vision. For phase-4 residential block, the finally approved housing was three story townhomes, which resembled a change from high-density residential to medium density housing.

- There was a change in the block adjacent to the school site from medium density housing to an open space park to be an extension to the neighbourhood park. This was based on a deal arranged between the City of Mississauga and the project Developer.

⁴⁵¹ The current status for this case study is based an interview with the project developer held on June 17, 2009.

- Affordable housing was not provided in the project because the requirement for 25% affordable housing was revoked by the province as part of the amendment in the Ontario Planning Act 2001.
- The entire project was completed successfully and it took about fifteen years from the initial start in 1992 through finish construction and occupancy.
- No issues have been raised regarding environmental monitoring of the flyash area or any other aspect of the project.

8.6 Lessons Learned - Cooksville Quarry Project

The following lessons can be learned from this case study:

1. Existence of Government Guidelines for Contaminated Sites:

This was important in determining the site remediation plan that is acceptable to public approval authority, as well as affordable to the developer. At the beginning of the project, it was “MOEE/MOE 1989 Guidelines for the Decommissioning and Cleanup of Sites in Ontario, 1989” that was applicable. During the project, the new “MOE Guideline for Use at Contaminated Sites in Ontario, February 1997” was issued. The developer was given the option to follow either one and the decision was to follow MOE 1989 guidelines because the project has already started following these guidelines (Key Participants’ Interviews, 2000).

2. Concurrent Planning Process by the City/Approval Authority & the Developer’s Team:

The City of Mississauga prepared the Cooksville Redevelopment Study in preparation for a new Secondary Plan for the area including the project site. This helped the City in developing a more updated planning vision for the project site and the surrounding district. The concurrent planning by the City and the adopted secondary plan outcome worked as the basis for the approval process for the Cooksville Quarry site redevelopment project. Official plan amendment and rezoning was required to comply with the adopted secondary plan. This concurrent planning by the City, in addition to the Developer’s team, created a favourable interactive condition between the two entities (project developer versus city approval authority), which contributed to project success in terms of planning approval as well as plan implementation. In general, brownfield redevelopment projects will most likely require official plan amendment and rezoning, due to the high likelihood of having newly proposed functional themes (usually mixed uses) with probably higher density and building height in the previously zoned industrial sites. This condition makes it necessary for the city to perform concurrent planning alongside the project developer to review and update the official plan and zoning requirements. What is more important is to have a clear

planning vision for a given project site and surrounding district. This form of collaborative planning will most likely expedite the planning approval process and yield better results.

3. Type and Extent of Proposed Functions to Match Market Demand:

The proposed high density high rise residential buildings (8-16 story apartments/condominium) were not sustained by the housing market. The developer foresaw that it would be difficult to easily market this type and extent of housing and decided to make adjustments to the originally approved plan. An alternative type of housing was proposed by a builder with four story walk-up units in the form of row building form to maximize density. The alternative housing type was relatively lesser density as compared to the initially proposed housing. However, the alternative housing density met city requirements at the lower end and was approved by the city. All units were sold out quickly, which indicates its marketability.

Regarding neighbourhood commercial centre and convenience commercial, the City performed a “Retail Market Feasibility and Impact Study: A Review of City Requirements.” In addition, the private Developer had his market consultant who reviewed the City market report and performed their own market studies. Having the two sides, the developer and the city, performing market studies helped in defining the market demand for commercial functions.

4. Indemnification Agreements:

The indemnification agreements from Ontario Hydro to the developer on one side and from the developer to the City, MOE on the other side were key components in the development agreement between the City and the developer. Essentially, potential future legal liability of contamination was defined primarily to be the responsibility of the original polluter (Ontario Hydro for the fly ash area) and at another level to be the responsibility of the developer.

5. Public-Private-Community Collaboration:

The collaboration of local community residents represented by ratepayers association along with the developer and the city (approval authority) was key to expedite the decision making process. The public participation process included several community meetings and presentations.

CHAPTER NINE: CASE STUDY AREA FOUR
WEST HARBOURFRONT DEVELOPMENT STUDY (WHDS) – HAMILTON
BAYFRONT PARK – HAMILTON

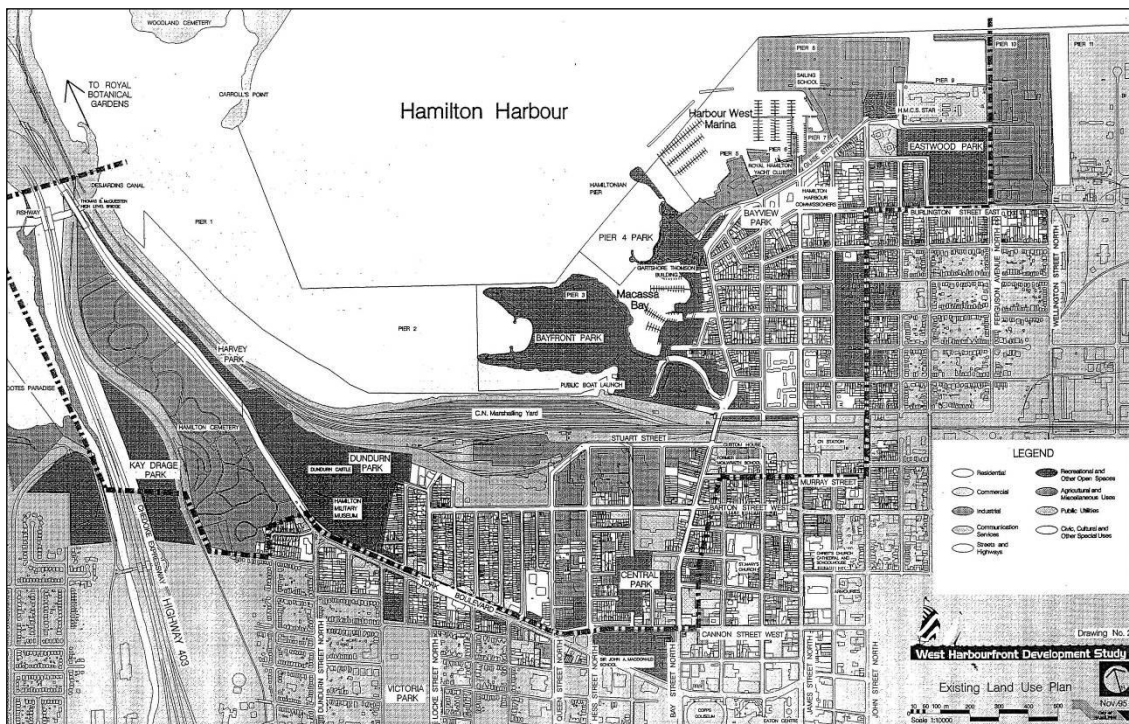


Exhibit 9.1: West Harbourfront Development Study (WHDS), Hamilton, Existing Land Use Showing Limits of the Study Area (City of Hamilton, November 1995)

The West Harbourfront Development Study (WHDS) covers an extensive area including the focal areas of the CN Service Yard and 241 Stuart Street, Bayfront Park,⁴⁵² in addition to other waterfront areas and residential neighbourhoods. The analysis will include the overall project area represented by the WHDS, as well as the specific focal areas mentioned above.

9.1 General Case Study Overview⁴⁵³

9.1.1 Case Study Site

The WHDS precinct lies within the area located at southwest end of Hamilton Harbour, within the City of Hamilton, Ontario, at the western end of Lake Ontario. The area is generally defined by a combination of cultural and physiographic features, notably the shoreline from the Desjardins Canal at the T.B. McQuesten Bridge (High Level Bridge), east of the HMCS Star property. The study area also includes the shoreland along the eastern side of Cootes Paradise between the Desjardins Canal and Chedoke Creek (Exhibit 9.1).⁴⁵⁴

⁴⁵² Bayfront Park was done earlier in 1993. However, detailed design of the Park was included in the WHDS.

⁴⁵³ The information in this section is mainly taken from the WHDS (City of Hamilton, November 1995).

⁴⁵⁴ The Boundary for the WHDS is shown as a dotted line in Exhibit 9.1.

9.1.2 Development History

The study area encompasses the oldest inhabited area in Hamilton.⁴⁵⁵ During the War of 1812, Burlington Heights was the base of British forces that had fortified the area and built a number of barracks and supporting buildings. In 1815, George Hamilton and Nathaniel Hughson laid out a town site in the vicinity of King Street and James Street with roads leading north to the Harbour. The opening of the Burlington Canal in 1827 enabled steam powered boats to enter the Harbour. Hamilton soon became the focus of industrial and commercial activity in the 1830s to 1850s. By 1840, the Port of Hamilton was well established and active. Hamilton Harbour, with access to Lake Ontario, has contributed the most to the development of the City of Hamilton.

In the 1850s and 1860s, the arrival of the railway and industrial development established the old port area as a hub of commercial and industrial activity. Industrial development was toward the east along the Harbour. Historically, the Hamilton Harbour had also been a focus of recreational activities for residents, which included fishing, swimming, sailing, rowing, and skating. Recreation coexisted with commerce and industry. However, by the 1950s the expansion of the industrial and shipping activities had dramatically changed the Harbour to the detriment of recreation. Public access was reduced as other types of development took place. Fishing and swimming ceased as Harbour pollution affected fish stocks and public health.



City of Hamilton, 1954



City of Hamilton, 1972

Exhibit 9.2: Aerial Photos for Hamilton Showing Development (Ulterman McPhail Cuming Associates, 1995)

The environmental movement of the 1960s instigated government attention and led to many actions and initiatives to clean-up the Harbour and to improve public access to its shores.

⁴⁵⁵ Recent archaeological investigations have unearthed artifacts that confirm that Burlington Heights was the site of many settlements over the past 8000 years. Records show that Richard Beasley was among the first settlers in the western section of the WHP arriving around 1785. He erected a log cabin and constructed a wharf from which he traded to new comers and would-be settlers.

The WHDS was another initiative by the City of Hamilton to generate a vision to guide the future redevelopment of the West Harbourfront Precinct (WHP). The project included a comprehensive study with extensive public participation involving many civic and regional departments, external consultants, organized stakeholders, and city residents. City Council approved funding for the project and formation of the *Steering Committee* on January 26, 1993 and the Terms of Reference for the Study were approved on May 25, 1993.

The WHDS Study formally began in the summer of 1993 and concluded with the submission of the “*Final Report: A Vision for the Future*” on November 1995.

9.1.3 Opportunities and Problems/Constraints

The main opportunities for this case study project included the following:

- Pristine waterfront as a natural resource for recreation and tourism.
- Access to Lake Ontario.
- Proximity to the city core.
- Access to main transportation routes.
- Large size land that can be redeveloped.
- Willingness of CN to relocate their marshalling yard.
- The successful transformation of the former Lax property (land fill) into Bayfront Park.

The main problems and obstacles facing this project included the following:

- Site contamination and related cost of site remediation.
- Multiple ownership of properties.
- Lack of infrastructure and related cost issues.
- The main CN rail lines that cannot be removed.
- CN was a public/federal entity. It became private during the planning process. This implied an added cost for the public sector if the CN area would be used for public use.

9.2 COMPREHENSIVE ANALYSIS OF PROJECT PLANS & PLANNING PROCESS⁴⁵⁶

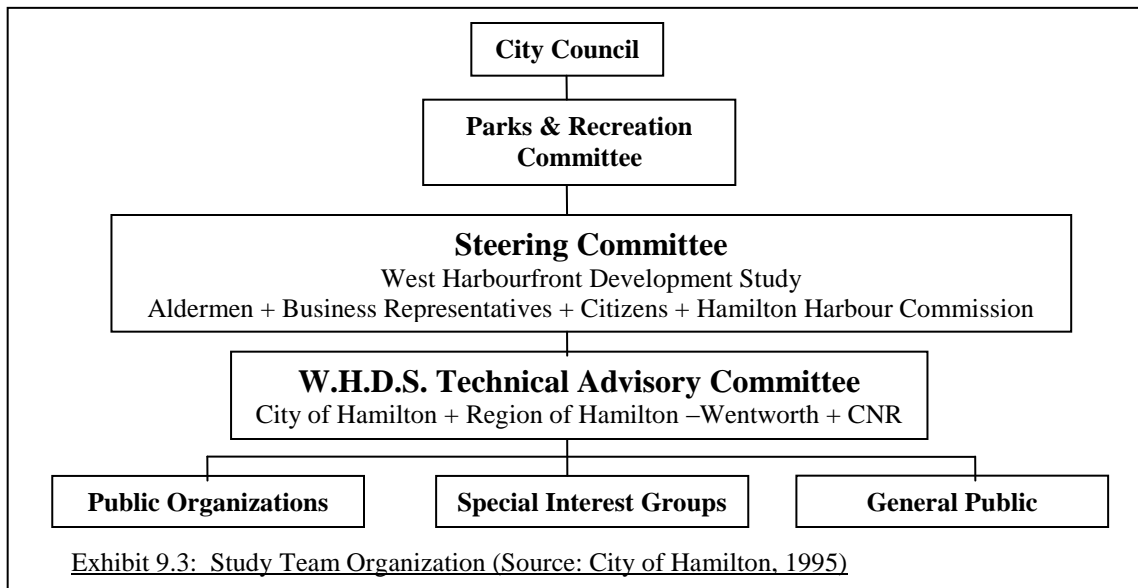
The Planning Report for the WHDS included the study process, the impacting initiatives and supporting technical studies, the concept plan for the WHP and Bayfront Park, development guidelines, and preliminary cost estimates and an economic impact analysis for these concept plans.

9.2.1 The Study Process

The planning process for WHDS was centrally controlled and monitored by the City of Hamilton. The City established a “*Study Team Organization*” with a “*Steering Committee*” that coordinated the planning process and consisted of a wide spectrum of members from the City of Hamilton, business representatives, citizens, and the Hamilton Harbour Commission (Exhibit 9.3). The organizational set-up also included a “*Technical Advisory Committee*” that directed the

⁴⁵⁶ This Section is taken from the Final Report, *Vision for the Future*, WHDS (City of Hamilton, November 1995).

undertaking of various technical studies and reported to the “*Steering Committee*” for direction and approval. Input was sought from different stakeholder groups participating in the overall process, including public organizations, special interest groups and the general public. Recommendations were first approved by the “*Steering Committee*” and then submitted to the Parks and Recreation Committee and City Council for their approval.



The study process included a *Vision Game*, *Design Workshops*, *Public Meetings*, and *Supporting Technical Studies*. The “*Steering Committee*” and “*Technical Advisory Committee*”, in addition to stakeholder organizations, were involved in all of these activities.

9.2.1.1 *Vision Game:* The *Vision Game* was a participatory process which included members of the *Steering* and *Technical Advisory Committees*, stakeholder group representatives, in addition to staff. The objective of the exercise was to stimulate thoughts and ideas in order to develop a vision plan for the West Harbourfront Precinct (WHP). The outcome of the *Vision Game* was ten strategies that best described the focus of redevelopment planning for the WHP.⁴⁵⁷ Planning goals, objectives, and principles were developed to guide the study process and the evolution of a *Concept Plan* for the WHP.⁴⁵⁸

⁴⁵⁷ These strategies were as follows: 1. *Develop Tourism on Many Levels*, 2. *Area Accessible to Everyone by all Forms of Transportation*, 3. *Maintain Balance/Emphasize the Unique*, 4. *Environment*, 5. *View the Whole Harbour*, 6. *Fully Integrated Development*, 7. *Social Environment*, 8. *World-Class Facility*, 9. *International Partnership*, 10. *Self-Sustaining* (City of Hamilton, 1995).

⁴⁵⁸ The planning goals were broad and included the following: “1. *To prepare detailed development plans for the Harbourfront Park site recognizing the special significance of this place ...*, 2. *To prepare development guidelines and conceptual plans for the integrated redevelopment of the WHP in order to: a. Enhance opportunities in Hamilton for tourism, recreation and commerce, b. Maximize universal public access to, and use of the waterfront,*

9.2.1.2 Design Workshops: *Design Workshops* included most of the same participants in the *Vision Game*. The objective of the *Design Workshops* was to discuss outstanding issues in five land use subject areas that constituted the project and to arrive at a consensus on each. The results of the *Design Workshops* were important in providing direction for the preparing the *Concept Plan* for the WHP.⁴⁵⁹ A draft *Concept Plan* was prepared by the City Staff and submitted to City Council on June 27, 1995. The Staff was directed to represent the project for public and stakeholder consideration in a series of meetings held in July to November 1995.

9.2.1.3 Public Involvement Process: Public involvement had been ongoing throughout the study process. Business and citizen representatives were in the *Steering Committee* and in the *Stakeholder Groups*. The general public was also involved through a public outreach programme. Three public meetings were conducted to introduce the WHDS to the public at large. The City Council approved Section 14 of the Report of the Parks and Recreation Committee at its meeting of June 27, 1995.⁴⁶⁰ Based on City Council approval and direction, the *Steering Committee* scheduled three public meetings to receive input on the *Draft Concept Plan* for the WHP. In addition, special presentations on the *Draft Concept Plan* were given to stakeholder groups and neighbouring municipalities.⁴⁶¹ The workshops, public meetings, and special presentations allowed public and private entities an opportunity to help generate the vision for the WHP and to comment on the *Concept Plan*.

9.2.2 Impacting Initiatives

Hamilton Harbour and the WHP had been the subject of many initiatives to improve water quality, increase access to the Harbour, protect heritage and environmental resources, stimulate

c. Promote the positive image of the City of Hamilton, & d. Encourage & facilitate formation of partnerships with the private sector & senior levels of government (City of Hamilton, 1995).

⁴⁵⁹ The following issue papers were prepared: “• Issue No. 3 – Multi-Use Sport Complex, • Issue No. 4 – T.B. McQuesten Multicultural Gardens, • Issue No. 5 – Special Attractions, • Issue No. 6 – Shoreline Access and Treatment, • Issue No. 7 – Heritage Issues (City of Hamilton, 1995).

⁴⁶⁰ City Council approval was as follows: “14. (a) That the concept plan for the WHDS involving relocation of the CN marshalling yard “WHDS Interim Report” as outlined in Appendix “A” attached hereto be received; and (b) That staff be directed to arrange and attend a minimum of two public meetings to present the concept plan and receive input on the proposal and to obtain input from stakeholder groups including Burlington City Council and Region of Halton, and (c) That the Planning and Development Committee be requested to direct Planning staff to participate with the Department of Public Works and Traffic/Parks Division in the arranging and attendance of meetings required to represent the WHDS concept plan” (City of Hamilton, 1995).

⁴⁶¹ In addition to 3 public meetings, 28 presentations were given at Hamilton and surrounding cities and towns.

the economy, and provide for long-term transportation needs. The WHDS was an extension of those works that included City, Community, Regional, Provincial and Federal initiatives.⁴⁶²

9.2.3 Site Assessment

Site assessment included the analysis of urban context, existing conditions and opportunities and constraints within Harbourfront Precinct Area (WHP). The WHP comprised diverse and contrasting arrangements of landscapes, urban developments, waterfront uses, and industrial activities. The area of the WHP was about 283 hectares (700 acres) and included a shoreline over 7 km (4.32 mi). The Precinct spanned seven different neighbourhoods. A heritage study was performed as part of the WHDS by a private consultant and identified the following five major “Cultural Landscape Units” (Exhibit 9.4):

1. **Northwest Entrance Area** – the northwest entrance from the Desjardins Canal crossing to Dundurn Street North
2. **Southern Residential Area** – residential area generally south of Tecumseh, Barton, Bay, and Murray Streets
3. **Industrial Area** – the industrial rail lands north of Barton, Tiffany, and Stuart Streets
4. **Northern Residential Area** – the residential area north of Strachan Street
5. **Harbour Shoreline Area** – the Hamilton Harbour shoreline (City of Hamilton, 1995)

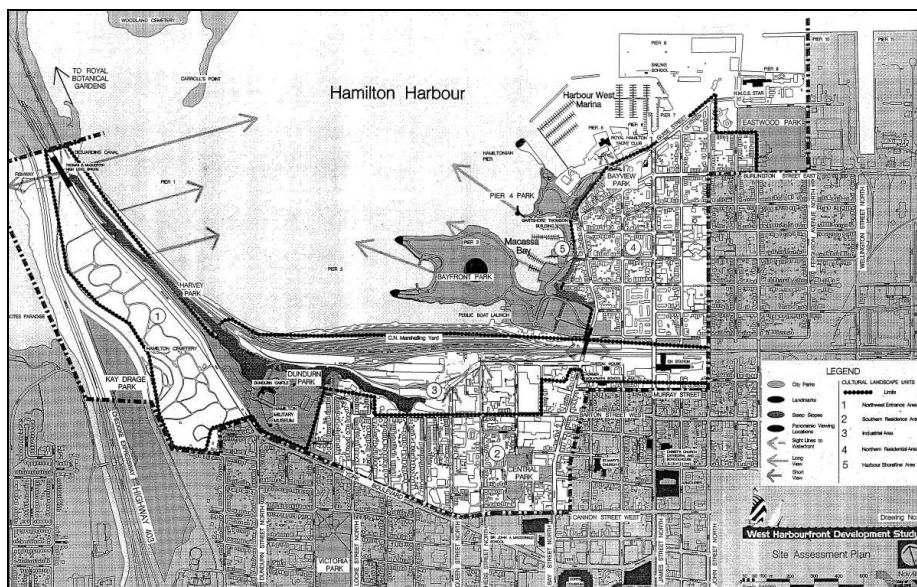


Exhibit 9.4: Site Assessment Plan, (WHDS), Hamilton, (City of Hamilton, 1995)

The analysis of existing conditions included environmental, physical land use and built heritage issues. The opportunities and constraints, together, were represented by the cultural

⁴⁶² City Initiatives included: “1) City of Hamilton Official Plan, 2) Central Area Plan – Official Plan Amendment No. 66, 3) Pier 4 Park Development, 4) Remediation of Bayfront Park, 5) Ferguson Avenue Revitalization Project, 6) Dundurn Castle Restoration, 7) Special Attractions including the T.B. McQuesten Multi-cultural Gardens, the Hamilton & Scourge Project, the Crystal Palace, and Children’s Museums (City of Hamilton, 1995)

landscape areas of the WHP area.⁴⁶³ The WHP has distinctive natural and significant cultural and historic features that must be incorporated into the *Concept Plan*. The upper levels of Burlington Heights and Bay Street North provide panoramic views to the Harbour. The natural areas must be protected and shorelines must be enhanced, possibly to create fish and wildlife habitat.

The CN service yard, industrial lands and the Harbour shoreline offer a greater potential for redevelopment than the northwest entrance and residential areas. The terrain and proximity to the CN mainline, future Perimeter Road and water transportation make this a desirable area for redevelopment. The shoreline had been in a constant state of evolution since the early 1800s and redevelopment of these lands may regain the original vibrant nature of this area.

The municipal parks, special attractions, and marinas in the WHP established it as the primary recreational area on Hamilton Harbour. Shopping operations occurred at Pier 8 and eastward, leaving the west Harbour free for recreational boating and other water related activities. The potential existed to expand the recreational and tourism aspects of this area with redevelopment of the CN lands. A waterfront trail would link the existing parklands and provide a shoreline route from Eastwood Park to Princess Point and to the Royal Botanical Gardens.

9.2.4 Supporting Technical Studies

Some of the main technical studies were briefly as follows:⁴⁶⁴

1. **Feasibility Study of Relocating the CN Marshalling Yard:** This study was a primary component of the WHDS. The result of this study indicated that there was space available at Aldershot to expand trackage and facilities to accommodate rail operations of the magnitude of the CN marshalling yard (For more details, see following section on Economic Impact Analysis).

2. **CN Main Line Corridor and Crossing Study:** CN Rail required two main line tracks to continue to pass through the Stuart Street yard property. This Study recommended realigning the main lines in a southerly direction, further away from the waterfront. Bridge structures at strategic locations were envisioned to connect the south side of rail lines with the waterfront.

⁴⁶³ The cultural landscape areas included *natural areas, views, perimeter road, CN main lines, public open space, historic sites & structures, special attractions, downtown core, and adjacent land uses* (City of Hamilton, 1995).

⁴⁶⁴ The supporting technical studies included the following: 1. *Feasibility Study of Relocating the CN Marshalling Yard*, 2. *CN Main Line Corridor and Crossing*, 3. *CN Station*, 4. *Review of Official Plan & Zoning Issues*, 5. *Population Demographic Analysis*, 6. *Historic and Cultural Elements*, 7. *Heritage District Implications – Dundurn Castle*, 8. *Environmental Issues*, 9. *Land Ownership*, 10. *Comparative Waterfront Planning Studies & Development*, 11. *Federal & Provincial Initiatives*, 12. *Bayfront Park*, 13. *Multi-use Sports Complex*, 14. *Site development Models*, 15. *Regional Transportations & Local Traffic Issues including the Perimeter Road & Strategic Transportation Review*, 16. *Infrastructure Issues*, 17. *Financial Issues*, 18. *Urban Design Issues*.

3. **Review of Official Plan and Zoning Issues:** According to the existing land use and zoning designation, the rail lands and adjacent industrial properties were zoned heavy industrial. According to the City Official Plan (Schedule A, Land Use Concept), the rail lands were designated as utilities and the adjacent properties to the south, including Stuart Street, were designated industrial. Also, the Official Plan (Schedule B) identified special policy areas within the WHP. In addition, and according to Schedule H of the Official Plan, all areas within the study area had been designated as community improvement areas except for Burlington Heights. As proposed in the *Concept Plan* for the Precinct changes in land uses, would require an Official Plan amendment and rezoning.

4. **Historic and Cultural Elements:** A heritage study for the WHP was undertaken by a private consultant, which included a historic record of the study area, identified existing heritage features, outlined existing planning policies, and provided conclusions and 16 recommendations that would help to manage, conserve, and interpret the heritage elements and values.⁴⁶⁵

5. **Environmental Issues Study:** The Remedial Action Plan (RAP) for Hamilton Harbour and the Fish and Wildlife Habitat Restoration Project had identified the southwestern shore of the Harbour between Bayfront Park and Grindstone Creek as an important area for the preservation and protection of fish and wildlife habitats.⁴⁶⁶ The evaluation of existing environmental conditions has led to the decision to protect the natural areas by limiting development in significant areas and to prepare development guidelines addressing environmental issues.⁴⁶⁷

6. **Site Development Models:** Several site development models and schematic land use plans were prepared for the WHP with two development scenarios investigated, having the CN

⁴⁶⁵ Some of the recommendations were as follows:

Recommendation 1: ... that the future heritage conservation management and planning of this area and the cultural landscape units, identified in section 3, form the principal planning units or areas;

Recommendation 2: In order to ensure a comprehensive approach to heritage conservation, it is recommended that revisions be made to Official Plan policies wherever appropriate to reflect the intent to conserve the cultural landscapes within the West Harbourfront planning areas And to develop in a sensitive and complementary manner the following cultural landscapes within the WHP planning area: • The Hamilton Harbour shoreline, • The industrial rail lands north of Barton, Tiffany and Stuart Streets;

Recommendation 3: ... that the City of Hamilton consider the designation of heritage conservation districts and the initiation of lower building heights permitted in the zoning by-law in order to protect cultural landscapes, including their natural components, within the WHP area. (Unterman McPhail Cuming Associates, February 1995).

⁴⁶⁶ In response to those projects, fish habitats were created in selected areas around Bayfront Park during the remediation of the former Lax property (City of Hamilton, 1995, WHDS).

⁴⁶⁷ It is important to note that the existing site contamination was not explicitly mentioned as a critical environmental issue that needed to be considered and resolved as part of the WHDS. Environmental Studies were also performed by a private Consultant on the existing site contamination and remediation process.

marshalling yard relocated and remaining.⁴⁶⁸ Based on Study results, the *Steering Committee* recommended that one Concept Plan be advanced showing the redevelopment of the WHP with the CN marshalling yard being relocated and those lands being available for redevelopment.

The adoption of one redevelopment alternative was a very unusual planning decision. In addition to relocating the CN marshalling yard, different other factors could have been addressed in generating alternative *Concept Plans* like level of transformation of the existing land use setting and connectivities to the surrounding areas, etc. It was important to generate different alternative Concept Plans for evaluation by the multi-stakeholder *Steering Committee* to allow for reflecting various aspirations and objectives of stakeholder groups.⁴⁶⁹

7. **Urban Design Issues:** These included studies on land use mix, landscape architecture, view corridors, public spaces, public access, heritage aspects, and architectural form and style. Recommendations were incorporated into the proposed land use *Concept Plan*. Development guidelines were also prepared to outline the urban design principles to be considered and maintained in the actual redevelopment and implementation of the *Concept Plan*.

9.2.5 **Development Programme**

A development programme was prepared as part of the WHDS to assist with land use allocations and the design of the Concept Plan. The development programme was meant to be a base and subject to change as the Concept Plan would be further refined. The main components of the programme included “1. *Special Attractions*,⁴⁷⁰ 2. *Transportation*, 3. *Parking*, 4. *Waterfront Trail: From Cootes Paradise to Ferguson Avenue, 6 m. min. width*, 5. *Residential and Commercial Developments*.” The Special Attractions included in the development programme represent the potential developments deemed suitable for the WHP and a starting point.

⁴⁶⁸ Plan features were evaluated on the basis of: “• *Capability – Is the site physically capable of accommodating the proposed feature/attraction?*, • *Suitability – Is the proposed feature/attraction suitable for the WHP and the specific location, and is the site better suited for another use or is this feature/attraction the best use of the site?*, • *Feasibility – Is it feasible to build the proposed feature/attraction at the specific location?* (City of Hamilton, 1995).

⁴⁶⁹ It is difficult, if not impossible, to reflect varying stakeholders’ objectives and interests in one alternative Concept Plan. However, having different alternatives that convey the major varying objectives, in addition to arranging a multi-stakeholder review process would allow for better chances for stakeholders to accept certain tradeoffs in the final plan. The decision is perceived as collective and not top-down.

⁴⁷⁰ The special attractions included the following: “• *T.B. McQuesten Multicultural Gardens (9.93ha/24.53ac)*, • *Great Lakes Maritime Heritage Museum, Hamilton and Scourge Project, and IMAX Theatre (3,700-5,500sq.m./39,800-59,200sq.ft.)*, • *Waterfront Village – “Beasley’s Landing” (24,000sq.m/-260,000 sq. ft.)*, • *Hamilton Military Museum*, • *Historic Ships Building Centre (0.40 ha/1.0ac)*, • *Great Lakes Aquarium*, • *Outdoor Amphitheatre (Capacity: 6,000-8,000 people, Area: 3.2 ha/7.8ac)*, • *Aviary*, • *Crystal Palace*, • *Canada Steel Science and Technology Centre (Building Area: 12,000 sq.m./130,000 sq. ft., Land Area: 2.8 ha/7 ac, Parking: 125 cars)*, • *Children’s Museum ((Building Area: 1860 sq.m./20,000 sq. ft.)* (City of Hamilton, 1995).

9.2.6 Concept Plan

A draft *Concept Plan* and three dimensional presentation model for the WHP was submitted to the City Council for review and presentation to the general public and stakeholders. Based on input from all concerned parties, a final *Concept Plan* was prepared which explained the overall vision for transforming the existing railway and industrial lands into a dynamic and multi-use development (Exhibit 9.5).⁴⁷¹

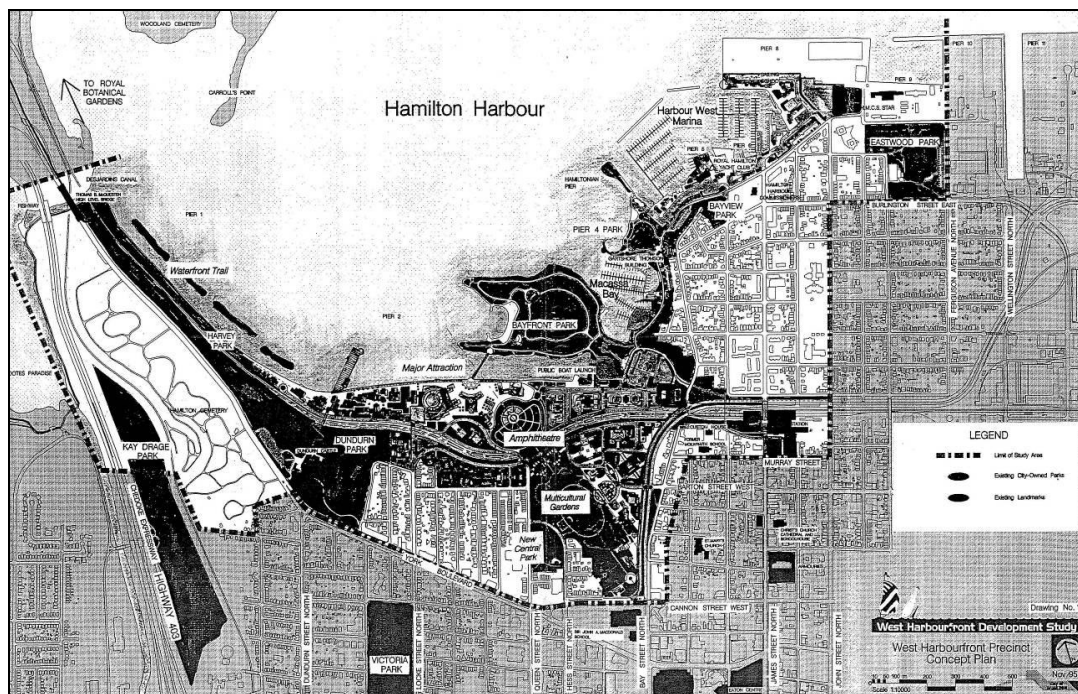


Exhibit 9.5: West Harbourfront Precinct Concept Plan, WHDS, Hamilton (City of Hamilton, 1995)

The proposed *Concept Plan* was promoting the creation of a unique “people place” with maximum access to the Harbour, strongly linked to the downtown, with new residential and commercial developments that were compatible in scale and character to adjacent neighbourhoods. The key aspect of the plan was the relocation of the CN marshalling yard, while maintaining two main lines. The planning vision was to transform the rail yard and the adjacent industrial land into a waterfront redevelopment.⁴⁷²

The future vision for the WHP was a vibrant, multi-dimensional and safe place that would balance a wide variety of human activities and land uses with the natural and social

⁴⁷¹ The key objectives of the Concept Plan included: *Maximizing public access to the harbour, Increasing residential, commercial, and retail opportunities, Creating new parkland and recreational elements, Enhancing tourism, and Improving the image of Hamilton* (City of Hamilton, 1995).

⁴⁷² This relocation would provide 40.5ha/100ac) of waterfront land for redevelopment. The involvement of CN and their willingness to relocate the marshalling yard had provided the best opportunity to reclaim the valuable waterfront property (City of Hamilton, 1995).

environment. To achieve this vision, the *Concept Plan* for the Precinct would encourage mixed-use development to ensure that people can live, work, socialize, be entertained, and recreate in the Precinct. Residential functions existed and/or were proposed in the development zones to ensure that those zones remain vibrant after work hours. For public use and enjoyment of the Harbour, the plan featured a 6 km-long (3.7 mi.) paved Trail along the shore from Eastwood Park to Cootes Paradise and over the Desjardins Canal to link up with the new Lake Ontario Waterfront Trail in Burlington. To increase tourism in the region and to improve the image of the community, the plan designated space for a variety of special attractions such as horticultural gardens, an outdoor amphitheatre, maritime interpretive centre, shops, cafes, and restaurants.

Development Districts of the Concept Plan: The WHP was structured into fifteen development districts based on existing cultural heritage landscapes, existing and proposed land uses, and future development zones (Exhibit 9.6).⁴⁷³

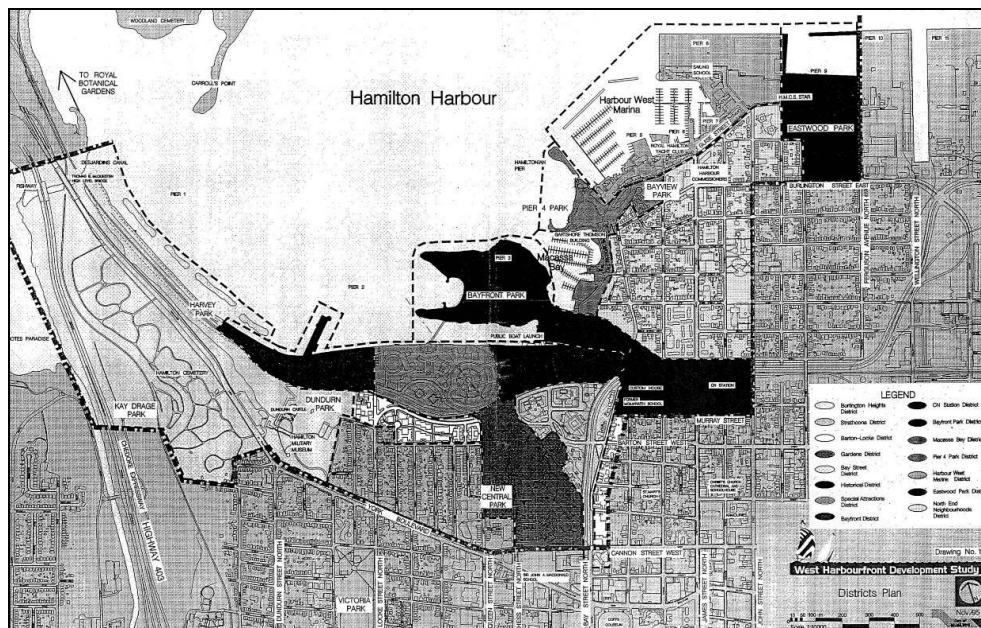


Exhibit 9.6: Districts of the Concept Plan, WHDS (City of Hamilton, November 1995)

In essence, each district represented a development zone. In the WHDS report, it was recommended that those development zones be adopted and detailed design guidelines and criteria be prepared and enacted under the appropriate site plan control legislation to regulate the use, character, density, architectural form and quality of development in each district (City of Hamilton, 1995). The WHDS was a first step toward generating a plan to redevelop the WHP

⁴⁷³ These Districts included: “1. Burlington Heights, 2. Strathcona, 3. Barton-Locke, 4. Gardens, 5. Bay Street, 6. Historic District, 7. Special Attractions, 8. Bayfront, 9. CN Station, 10. Bayfront Park, 11. Macassa Bay, 12. Pier 4 Park, 13. Harbour West Marina, 14. Eastwood Park, 15. North End Neighbourhoods (City of Hamilton, 1995).

over the next 20-30 years. The WHDS included recommended actions for implementing the proposed plan.⁴⁷⁴ Even though the *Concept Plan* included subdivision into potential development zones, there was no clear phasing of implementation plan indicating priority development areas. Furthermore, the disbanding of the *Steering Committee* after completing the WHDS Final Report for the *Concept Plan* is not clearly justified. Because, preparing the *Concept Plan* represents part of the overall redevelopment planning process and to have a sustained functioning of the *Steering Committee* would facilitate stakeholders' acceptance of planning outcomes.

Economic Impact Analysis for the Concept Plan & Cost Estimates for its Components:

A preliminary economic impact analysis was prepared by the City to outline the economic costs and benefits for the project which included “• *Construction Analysis*,⁴⁷⁵ • *Employment Analysis*, • *Visitor Attendance and Spending Analysis*, • *Tax Assessment*,⁴⁷⁶ • *Development Charges*.⁴⁷⁷

The cost estimates of the “*Construction Analysis*” did not include the cost of environmental site remediation. Regarding cost items that were supposed to be covered by the municipality, there was no indication that such required funds were available or could be provided. More than half of the estimated cost was to be provided by the private sector, which would be pending project financial feasibility and marketability. In addition, the City prepared cost estimates for the functional components of the *Concept Plan* for the purpose of establishing the Capital Budget required for the project. However, it was not clear how the required funding would be provided and whether public and private funding sources would be included.

Feasibility Study for Relocating the CN Marshalling Yard (at Aldershot): The results of this Study indicated that there was space available at the proposed location at Aldershot for the CN marshalling yard operations. Also, the Study gave an order of magnitude cost estimate of \$100 million for relocating the yard. The cost estimate excluded land acquisition, operational

⁴⁷⁴ The first recommended action was “... *That the WHDS Final Report - A Vision for the Future be received by the City Council and furthermore, wherein this report completes the mandate of the Steering Committee, it is recommended that the WHDS Steering Committee and its supporting Technical Advisory Committee be disbanded* (City of Hamilton, 1995).

⁴⁷⁵ The Construction Analysis included the following cost components: “• *CN Marshalling Yard Relocation - \$99,700,000*, • *Municipal Operations Relocation - \$6,604,000*, • *Site Clearing - \$8,360,000*, • *Shoreline Protection - \$1,080,000*, • *Pedestrian Underpass - \$2,500,000*, • *Municipal Infrastructure - \$30,134,000*, • *Municipal Streets - \$19,545,000*, • *Structures Over and Beside CN Tracks - \$29,637,000*, • *Landscape and Open Space Development - \$23,700,000*, • *Municipal Capital Projects - \$161,455,500*, • *Special Attractions by Others - \$14,630,000*, • *Private Sector Developments - \$531,707,500*, • *Bayfront Park Development - \$5,047,000*, • ***Total Construction Values = \$934,046,000***. (City of Hamilton, 1995, WHDS).

⁴⁷⁶ This was not included in the WHDS. However, and based on the local Ontario assessment office, the current realty taxes generated from the existing assessment of approximately \$1,587,000 would be potentially increased to \$12,500,000 after project redevelopment (City of Hamilton, 1995).

⁴⁷⁷ The total potential development charges were estimated at \$9,152,080 (City of Hamilton, 1995).

and environmental impacts, and employee dislocation costs.⁴⁷⁸ CN wanted the sale of land agreement to be “As-is” and “Where-is,” which implied that the purchaser/City would be liable for site environmental contamination and required site remediation cost. Even though the overall project was not implemented, the CN condition was applied to the sale of the strip of land allocated for the Harbourfront Trail.

The City was unable to cover the mentioned costs for relocation of the CN marshalling yard and other sources of funding would be required. Funding of this essential portion of the WHDS project would require financial feasibility and project marketability to potential developers. Even though the WHDS provided cost estimates for relocating the marshalling yards, financial feasibility (return on investment) was not provided. Positive financial feasibility could be used as a good marketing tool for this project.

9.2.7 BAYFRONT PARK

9.2.7.1 Background: Bayfront Park was created by land filling of the shoreland and lake filling during the 1950s to early 1980s. The property was a 40 acre parcel consisting of approximately 25 acres of landfill. The property was previously known as the Lax Property who was the original owner. During the 1960s and 1980s, this property was the subject of many studies and several development proposals. The City of Hamilton expropriated the property in 1984 and had the intention to develop the property as a major waterfront park. However, the discovery of hazardous materials on the site resulted in the site being closed to the public for several years. Because the site was formerly used for waste disposal, the MOE required the City to develop and implement a site remediation plan in accordance with Section 46 of the EPA in order to develop it as a waterfront park.⁴⁷⁹ The site remediation plan was approved in 1989 and public funding was provided in 1991.⁴⁸⁰ The City implemented the site remediation plan and created a waterfront park, which was opened to the public on August 1993 and named Bayfront Park.

⁴⁷⁸ The Study was prepared by CANAC Ontario of Toronto with the involvement of CN Rail when the latter was a federal agency and before privatization. Even though CN operations were still bound by the Transportation Act, CN as a private entity, had more stringent conditions for the sale of land of the CN rail yard on the basis of “As-is”, which implied that the Purchaser/City will be liable for site environmental remediation (City of Hamilton, 1995).

⁴⁷⁹ The site remediation plan included: “A. Removal and off-site disposal of approximately 20,000 tonnes of industrial waste and all contaminated soils at approved sites, B. Protecting the 1800m shoreline from erosion and creating fisheries habitat with the shoreline protection designs, C. Installing buried services corridor consisting of water, hydro, sanitary and storm sewers to avoid future disturbance of the remedial cap, D. Re-grading and establishing protective vegetative cover with grass & planting of over 1,000 trees” (City of Hamilton, March 1997).

⁴⁸⁰ The MOE provided a grant of \$7.5 million and the City of Hamilton provided \$1.59 million for site remediation, and Fisheries and Ocean Canada provided a grant of \$90,000. (City of Hamilton, 1995, WHDS)

9.2.7.2 *Problem Statement and Development Programme for Bayfront Park:* The success of the Bayfront Park as a venue for special events has resulted in increased demand. This increase in demand led to an ultimate goal to prepare a detailed development plan for Bayfront Park, which was included in the WHDS. The development plan for Bayfront Park included establishing the role of the park and identifying the facilities that are required.⁴⁸¹ For development vision for the Park, four development options were presented for consideration by the WHDS *Technical Advisory Committee* and *Steering Committee*. These options identified the type of improvements and development that could take place within the context of the current and future role of the Park. The *Steering Committee* approved the fourth Option and instructed that a master plan be prepared to reflect this level of development.⁴⁸²

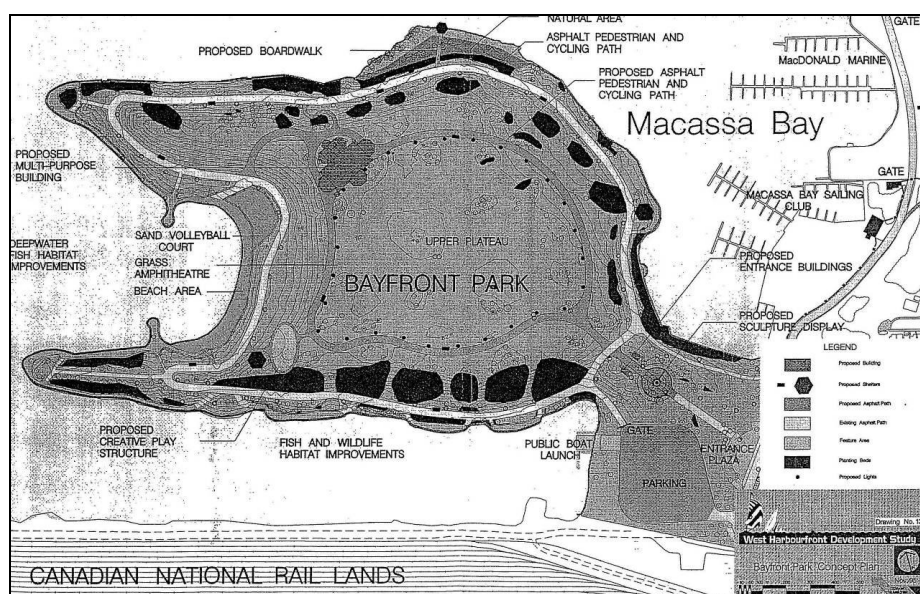


Exhibit 9.7: Bayfront Park Concept Plan, WHDS, (City of Hamilton, 1995)

9.2.7.3 *Concept Plan for Bayfront Park:* Bayfront Park was not intended to be intensively developed. The proposed park improvements and facilities were intended to better serve park users and to protect the park from the impact of special events (Exhibit 9.7).⁴⁸³ Bayfront Park

⁴⁸¹ The role of the park was to: “a. Serve as the primary public greenspace on the harbour providing public access to the water’s edge and space for special events, 2. Facilitate passive park activities & 3. Be moderately developed, with the facilities identified in the approved concept plan described in this chapter” (City of Hamilton, 1995).

⁴⁸² The Park facilities were to serve approximately 1,000 visitors daily peak. The following general design guidelines were provided for the Bayfront Park: “1. The design of all program items should reflect a coordinated theme and style to reinforce a unique identity for Bayfront Park while being supportive to the theme of the West Harbourfront Precinct, 2. All components, including the selection of materials and finishes, must be designed to resist vandalism and minimize maintenance, 3. All program items shall be barrier free (City of Hamilton, 1995).

⁴⁸³ The main plan features included: An entrance building & courtyard, multi-purpose building & pavilion, children’s play area, paved lighted walkway around the upper level, picnic shelters & sun shelters over benches, boardwalk over the wetlands, paved parking areas, fully automatic irrigation system (City of Hamilton, 1995).

had gained overwhelming public acceptance as illustrated by the number of Park users on a daily basis. The master plan ensured that much needed improvements and facilities would be added without affecting the character of the Park.

9.3 KEY PARTICIPANTS' INTERVIEWS & FINDINGS – WHDS

Focused interviews with open-ended questions were conducted and taped for fifteen Key Participants in the project, which represented the public sector, private sector, and local community.⁴⁸⁴ Only ten Participants completed the structured-written questionnaire for evaluating the impact of selected problems and policy directions. The results for impact evaluation of problems and policy directions are outlined in Appendix A9.1 and Appendix A9.2 respectively. The analysis of responses from Key Participants for the open-ended and structured-written interview questionnaires is based on the eight research units of analysis that were originally derived for the empirical research method in Chapter Five.

9.3.1 Key Participants' Interview Responses on the Environmental-Legal Planning Sub-process - Site Remediation Planning – WHDS

The successful site remediation of the former Lax Property landfill site and its transformation into the Bayfront Park was key to initiating the WHDS project.

Bayfront Park: The main environmental problem was land filling of construction debris and industrial waste.⁴⁸⁵ The MOE required the City to clean-up the site according to Section 46 of the EPA and to develop it as a park.⁴⁸⁶ The total removal of hazardous waste and contaminated soil was costly and the City did not have all the funds. A site remediation plan, based on SSRA approach was developed by a private environmental consultant commissioned by the City and the plan was approved by MOE.⁴⁸⁷

The City commissioned private environmental Consultant did the set-up and monitoring of the implementation of site remediation in collaboration with the MOE. A private Contractor

⁴⁸⁴ Public sector representation included the City of Hamilton, MOE, and Harbour Commissioners. Private sector included the CN Rail, environmental consultant for site remediation along the trail, and business representatives. Community representatives included local residents and local business groups (Key Participants' Interviews, 2000).

⁴⁸⁵ As mentioned by the MOE environmental engineer, the industrial waste included metallic dust from a steel making process which was disposed into the site in layers with varying thickness and had a purple color. It was referred to as purple soil which was one type of contamination (Key Participants' Interviews, 2000).

⁴⁸⁶ Section 46 of the EPA, 1990 states: “No use shall be made of land or land covered by water which has been used for the disposal of waste within a period of twenty-five years from the year in which such land ceased to be so used unless the approval of the Minister for the proposed use has been given.”

⁴⁸⁷ As pointed out by MOE environmental engineer and City project engineer, the site remediation plan was before developing MOE Guidelines of 1989 and 1997. The plan included removal of hazardous waste on top of the soil, burying utilities, site re-grading with 2' deep clay cap and vegetation or pavement cover, in addition to 1.5 km long shoreline protection. No building shall be constructed on top of the clay cap (Key Participants' Interviews, 2000).

performed site remediation and managed to reuse part of the hazardous waste (dust from steel manufacturing) outside the site as an additive to produce high strength cement. The MOE also required from the City to monitor ground water for two years as part of the plan to insure that contaminants were not migrating into the Harbour.⁴⁸⁸ The City had to provide indemnification for the MOE from future legal liability. The Bayfront Park project was considered a successful model for site remediation and redevelopment of similar projects.⁴⁸⁹

Environmental Site Remediation for the WHDS Project: Site contamination was expected within the WHDS area and environmental investigation and assessment was only performed at the “*Harbourfront Trail*” area. The City emphasis was more on the physical-functional future vision for the WHDS area and environmental site assessment and remediation was to be performed by potential developers.⁴⁹⁰ This condition may raise concern over perceived legal liabilities of contamination.⁴⁹¹

Harbourfront Trail – Site Remediation

The Harbourfront Trail was a strip of land that was originally part of the CN rail area and hence environmental contamination was also similar.⁴⁹² The area was a fill of unknown origin and environmental contamination included petroleum contamination at sub-surface soil, in addition to ground water contamination. CN Rail performed site remediation for ground water contamination within the rail land. The City of Hamilton was responsible for site remediation for the “*Harbourfront Trail*”, which also included soil contamination and water lot contaminant sediments at some locations.⁴⁹³ The selected site remediation approach was SSRA following MOE 1997 Guidelines. Soil contamination was very widespread and it was difficult to separate spot area contamination due to the narrow nature of the site.

The site remediation process was proponent driven by the new owner (City of Hamilton) and its environmental consultant. A “*Record of Site Condition*” was not required. The site remediation plan was accepted by MOE with minor clarifications that were resolved. Site

⁴⁸⁸ Key Participants’ Interviews, 2000.

⁴⁸⁹ City of Hamilton (March 1997).

⁴⁹⁰ As mentioned by the City Urban Planner and Parks Department Manager, site contamination was known even though no specific environmental assessment and remediation cost studies were performed for the rail yard and surrounding industrial areas (Key Participants’ Interviews, 2000).

⁴⁹¹ As pointed out by City project planner, legal liability for contamination raised concern for the City because of implied difficulty in attracting potential developers (Key Participants’ Interviews, 2000).

⁴⁹² CN Railway sold the Trail land at market price and “As-is” to the City of Hamilton with indemnification to CN (Key Participants Interviews, 2000).

⁴⁹³ Interview with private environmental consultant commissioned by the City (Key Participants’ Interviews, 2000).

remediation planning went through a public consultation process as part of the MOE Guidelines. According to the levels of site contamination, restriction was made on the type of land use only for the “Trail.” Also, and at one area, the risk management approach was to cap the Trail soil with a material like asphalt (or concrete) as opposed to a Trail cover in order to avoid potential contact with the soil (especially for children). Ground water monitoring was performed on the adjacent CN rail area by the owner (CN Railway) and there was no need to monitor ground water within the “Harbourfront Trail” because of being part of the same area. In addition, site remediation and monitoring in general was within the overall picture of the Remedial Action Plan (RAP) for the Hamilton Harbour.

Impact Evaluation of Environmental-Legal Problems & Selected Policy Directions⁴⁹⁴

The “Environmental-Legal” component was important in the overall planning process especially for “Bayfront Park” and “Harbourfront Trail”. The overall average impact level for the “Environmental-Legal” component ranked “● strong” impact. The outstanding problems of “environmental site contamination” and “perceived legal liabilities of contamination” ranked “●-■ strong-very strong” impact. Also, the problems of “real and future legal liabilities of contamination” and “government commitment to approval for site remediation” ranked “● strong” impact. The remaining problems ranked “▲-● moderate-strong” impact.

Exhibit 9.8: Impact Levels of Problems and Policy Directions: Environmental-Legal Component-WHDS		
Level of Impact	Problems and Issues	Policy Directions
Strong-v. Strong	●-■ <ul style="list-style-type: none"> • Environmental site contamination • Perceived legal liabilities of contamination 	
Strong	● <ul style="list-style-type: none"> • Current legal liabilities of contamination • Real legal liabilities of contamination. • Government commitment to approval of site remediation 	● Addressing environmental contamination & site remediation in the beginning.
Moderate-Strong	▲-● <ul style="list-style-type: none"> • Human & natural ecosystem health hazard. • Clarity and consistency of current government approval process. • Length of approval process (time delay). 	<ul style="list-style-type: none"> • To define & confine legal liability of contamin. • Conditional lift of future liability of probable contamination from new purchasers of already cleaned sites.
Overall Average	Strong (●)	Moderate-Strong (▲-●)

The overall average impact level for selected policy directions also ranked “▲-● moderate-strong” impact which indicated its relative importance. “Addressing environmental contamination & site remediation in the beginning” ranked “● strong” impact. While “defining and confining legal liability of contamination” and “conditional lift of future liability of

⁴⁹⁴ See Appendix A9.1 and Appendix A9.2 for complete responses from Key Participants on the structured (written) interview questionnaire. The Environmental-Legal component included a response rate of 77% for problems impact and 63% for policy directions of the total number of actual questions for this component.

contamination” were rated “▲-● moderate-strong” impact. Despite the variation in the background of key participants, the results indicated that a good portion of them acknowledged the importance of addressing and defining environmental issues/problems in the beginning of the process. Even though this issue was explicitly addressed in the “*Bayfront Park*” and “*Harbourfront Trail*”, however it was not explicitly addressed in the overall WHDS project.⁴⁹⁵

9.3.2 Key Participants’ Interview Responses on the Physical-Functional Planning Sub-process – Land Use Planning and Urban Design, etc. – WHDS

As stated by Key Participants, the project was a preset vision by the City that was driven by the Bayfront area as recreational open space functions. The main problem was the location of the marshalling rail yard that occupied a considerable area and acted as a physical barrier between the waterfront and city functions, mainly residential communities. The proposed plan included a feasibility/cost study that was prepared for relocating the marshalling yard and keeping main two rail lines passing through. The location of vacant or underutilized industrial functions within the area, exacerbated the problem in terms of land use incompatibility with the adjacent residential communities as well as with the environmentally sensitive waterfront areas. A form of mixed-use including residential, commercial and recreational functions would form a transition between the existing residential communities and waterfront recreational functions. Also, the City had a prior study for Multi-cultural Gardens that was feasible within the WHDS and may provide the connection between Downtown and the waterfront.⁴⁹⁶ The area was currently zoned heavy industrial which would require Official Plan amendment and rezoning in order to allow the proposed functions. The findings of a special heritage study for the WHDS provided site classification into five cultural landscape areas that were incorporated into the project *Concept Plan*. The study called for heritage conservation of buildings and city street pattern maintaining street direction toward the waterfront. In addition, the study called for preserving natural heritage. Some of the main public concerns included the extent of development and its impact on open space and natural elements within nearby areas, the impact of commercial on existing neighbourhoods, as well as the impact of the proposed perimeter road on the development.⁴⁹⁷

⁴⁹⁵ The cost of site remediation was not included in the feasibility of relocating the marshalling yard as well as for the overall WHDS (Key Participants’ Interviews, 2000).

⁴⁹⁶ Interview with the City Parks Division Manager (Key Participants’ Interviews, 2000).

⁴⁹⁷ The City Urban Planner mentioned that City Council approved the perimeter road but there was no funding. The Downtown Study indicated no need for the perimeter road and local residents were not in favor of the project (Key Participants’ Interviews, 2000).

Impact Evaluation of Physical-Functional Problems & Selected Policy Directions⁴⁹⁸

The overall average impact of problems included within the “*Physical-Functional*” component ranked “▲-● moderate-strong”, which indicated their relative importance (Exhibit 9.9). The main problem of “*surrounding uses and use designation*” ranked “● strong” which indicated the need for compatible land use functions and rezoning. “*Physical dilapidation of buildings,*” and “*site visibility from main transportation routes*” ranked “▲-● moderate-strong” impact, which indicated their relative importance. In general, evaluation of selected problems was consistent with the evaluation of policy directions, mainly “*reclaiming lost urban space*” and “*achieving environments with a sense of place and community*” that ranked “▲-● moderate-strong”.

Exhibit 9.9: Impact Levels of Problems & Policy Directions: Physical-Functional Component-WHDS			
Level of Impact		Problems and Issues	Policy Directions
Strong	●	● Surrounding uses and use designation.	
Moderate - Strong	▲-●	● Physical Dilapidation of Buildings. ● Site Visibility from Main Transportation Routes.	● To Reclaim Lost Urban Space. ● To Achieve Environments with a Sense of Place and Community
Moderate	▲	● Declining Environmental Image of the Area. ● Accessibility to Main Transportation Routes. ● Vacant & underutilized buildings & sites. ● Availability of public transportation	● To Maintain a Balance between Heritage Conservation & Urban Innovation. ● To Prepare an Inventory of Contam. Sites. ● Utilizing Underutilized infrastructure.
Weak-Moderate	□-▲	● Deterioration of Physical Infrastructure.	
Overall Average		Moderate-Strong (▲-●)	Moderate (▲)

The overall average impact of the policy directions and guidelines ranked “▲ moderate” impact, which was the same for the policy directions of “*maintaining a balance between heritage conservation & urban innovation,*” “*preparing and inventory of contaminated sites,*” and “*utilizing underutilized infrastructure*”. In general, the responses indicated that the stated policy directions and guidelines were fairly important and worth considering for more detailed study.

9.3.3 Key Participants’ Interview Responses on the Economic Planning Sub-process - Financial Planning and Marketing – WHDS

In general, the vision for project financing was to be achieved through public and private investment funding. The initial Study (WHDS) was financed by the remaining fund from the successful Bayfront Park project, which was essentially Provincial and City fund.⁴⁹⁹ The cost of relocating the CN marshalling yard was originally conceived to be through CN Railways when it

⁴⁹⁸ See Appendix A9.1 and Appendix A9.2 for complete responses from Key Participants on the structured (written) interview questionnaire. The Physical-Functional component included a response rate of 72% for problems impact and 73% for policy directions of the total number of actual questions for this component.

⁴⁹⁹ As conveyed during interviews with the City Urban Planner and Parks Department Manager, an amount of \$300,000 was allocated for the preparation of the project Study, which was part of the remaining amount from the Bayfront Park project (Key Participants’ Interviews, 2000).

was a federal entity; however, CN was privatized during the planning process and consequently the cost of relocation would be borne by the development entity.⁵⁰⁰ Cost of infrastructure would be through a Super Build Fund including federal-provincial-local financial partnership.⁵⁰¹ Funding of actual site redevelopment would be through potential private sector developers. In other words, development planning was public sector driven with private sector investment.

The WHDS included cost analysis of the various project components in addition to an impact analysis outlining projected future tax revenues and job generation. However, cost of site remediation was not included in the cost analysis.⁵⁰² Also, the project did not include a financial feasibility study (return on investment) as a whole or for parts of the project. City perception was that project feasibility would be affected by the proposed land use functions as well as by building density, which can be used to achieve financial feasibility.⁵⁰³ Anyway, not providing cost estimates for site remediation and not having an idea about financial feasibility at least for a portion/phase of the project would create a vague image and would affect project marketability.

Project marketing included measures to attract global, provincial, and local developers. The City launched a modest campaign to inform international developers including a development brochure outlining the various aspects of the project.⁵⁰⁴ In spite of some favourable conditions for the WHDS, project marketing to attract private developers was not successful.

Impact Evaluation of the Economic Problems & Selected Policy Directions⁵⁰⁵

In general, the impact evaluation of most of the selected problems was relatively high and ranging from “● strong” to “▲-● moderate-strong”, which indicates their relative importance (Exhibit 9.10). The highest rank problem was “*impact of site remediation cost on project financial feasibility*” that rated “● strong” impact; while the problems of “*project perception being economically not feasible*,” “*high cost of heritage building conservation ...*,” and “*declining property values and tax*

⁵⁰⁰ In the case of the Harbourfront Trail, the City purchased the land from CN Railways at market price and was acting as a developer for this part of the project (Key Participants’ Interviews, 2000).

⁵⁰¹ As outlined by the Director of the City Economic Development Department, the Super Build Fund for major infrastructure included a share contribution of 1/3 federal, 1/3 provincial, and 1/3 local. In addition the cost of site remediation was expected to be through provincial funding (Key Participants’ Interviews, 2000).

⁵⁰² The cost of site remediation was expected to be higher than real estate value of the land. The City was expecting potential developers to cover this cost (Key Participants’ Interviews, 2000).

⁵⁰³ As outlined by the Director of the Economic Development Department, City of Hamilton, building density could be used as an incentive to balance project feasibility (Key Participants’ Interviews, 2000).

⁵⁰⁴ Also, representatives from the City had attended a global conference in San Francisco in order to meet and attract potential developers (Interview with City Parks Department Manager, 2000).

⁵⁰⁵ See Appendix A9.1 and Appendix A9.2 for complete responses from Key Participants on the structured (written) interview questionnaire. The Economic component included a response rate of 72% for problems impact and 65% for policy directions of the total number of actual questions for this component.

base” ranked “▲-● moderate-strong” impact. Overall, there was perceived risk and uncertainty about the economic feasibility of the WHDS project, which partly contributed to failure of project marketing.⁵⁰⁶

Exhibit 9.10: Impact Levels of Problems and Policy Directions: Economic Component - WHDS			
Level of Impact	Problems and Issues		Policy Directions
Strong	●	<ul style="list-style-type: none"> Impact of site remediation cost on project financial feasibility. 	<ul style="list-style-type: none"> To establish public-private partnership for project financing. To arrange for early marketing. To develop financial/redevelopment incentives.
Moderate - Strong	▲-●	<ul style="list-style-type: none"> Project perception is economically not feasible High cost of building conservation & restoration Declining property values and tax base. 	<ul style="list-style-type: none"> Availability of environmental liability insurance to cap site remediation costs and control future liabilities.
Moderate	▲	<ul style="list-style-type: none"> Scarcity of public & private funding 	
Weak-Moderate	□-▲	<ul style="list-style-type: none"> Declining economic redevelopment market. 	
Overall Average		Moderate-Strong (▲-●)	Strong (●)

The overall average impact for selected policy directions ranked “● strong,” which indicates their relative importance for this project. Three of the selected policy directions ranked “●strong” impact including “*establishing public-private partnership*,” “*arrangement for early marketing*,” and “*developing financial/redevelopment incentives*.” While “*availability of environmental insurance to cap site remediation costs*” ranked “▲-● moderate-strong”. These results indicate relative importance of the mentioned policy directions in this case study project.

9.3.4 Key Participants’ Interview Responses on the Social Planning Sub-process – Social Equity and Safety Planning – WHDS

As perceived by key participants in the process, there were no social problems like crime, vandalism or other security problems within the project area.⁵⁰⁷ Also, there was no specific social equity plan, but there was awareness about equity issues during the process. Local residents had concern about residential displacement and relocation as a result of the proposed plan functions like the “*Multi Cultural Gardens*” and the “*Perimeter Road*”.⁵⁰⁸ In addition, there was concern about relocation of “*CN Rail Yard*” and industrial functions which would result in employees traveling farther and potential loss of some jobs. However, the proposed redevelopment would

⁵⁰⁶ The WHDS project included cost estimates (total of \$934,046,000) and economic impact analysis which did not address financial/economic feasibility in terms of return on investment (City of Hamilton, 1995, WHDS).

⁵⁰⁷ Interviews with the City Urban Planner, Manager of Parks Division, and local residents, 2000.

⁵⁰⁸ As outlined by a local resident, the majority of local residents were in opposition to the proposed Perimeter Road. Regarding the proposed Multi Cultural Gardens, local residents were not in opposition to its location within the WHDS area, but opposition was against displacing about 300 houses as well as the negative impact on the historical/heritage value of the area as a result of the plan. The City Urban Planner pointed out that displacement of residential units implied loss of affordable housing to local residents (Key Participants’ Interviews, 2000).

provide more jobs as shown in the impact analysis for expected new employment. But the plan did not provide specific measures to secure access for local residents to newly generated jobs.⁵⁰⁹

The project perception by local residents was an urban renewal type of redevelopment that implied major displacement of residential units and jobs as well as urban transformation of existing street pattern. Furthermore, the “*Concept Plan*” was perceived as a single fixed blue print proposal without allowing flexibility of choice among different alternative options.

The planning process was in a way community based, in terms of having community representatives in the WHDS “*Steering Committee*” that monitored the planning process, in addition to having several public meetings involving local and city residents in the process. However, residents’ perception of their role was more of expressing opinion rather than real participation in decision making and formulating the proposed plan.⁵¹⁰

Impact Evaluation of the Social Problems & Selected Policy Directions⁵¹¹

The overall average impact of social problems ranked “□-▲ weak-moderate” which indicates that social problems were not critical in this project (Exhibit 9.11). The highest ranking problem was “*social stigmatization of the area,*” which rated “▲-● moderate-strong” impact and this was primarily related to the vacant and inactive area in addition to site contamination. The remaining problems ranked “□-▲ weak-moderate” impact. In general, this problem component appeared to have relatively lower impact in this project.

Exhibit 9.11: Impact Levels of Problems and Policy Directions: Social Component - WHDS		
Level of Impact	Problems and Issues	Policy Directions
Moderate-Strong	▲-●	• Social stigmatization of the area
Moderate	▲	• To foster social equity and justice through community participation.
Weak - Moderate	□-▲	• Securing accessibility of local residents to newly provided opportunities. • To achieve socially safe environment through community participation
Overall Average	Weak-Moderate (□-▲)	Weak-Moderate (□-▲)

⁵⁰⁹ Local resident’s perception of such projects with removal of residences and jobs that the new opportunities would not necessarily be for local residents, which implied a loss on their part (Key Participants’ Interviews, 2000).

⁵¹⁰ As conveyed by a local resident, they had the chance to express their views and objectives. Ultimately it was City decision in formulating the final *Concept Plan* (Key Participants’ Interviews, 2000).

⁵¹¹ See Appendix A9.1 and Appendix A9.2 for complete responses from Key Participants on the structured (written) interview questionnaire. The Social component included a response rate of 60% for problems impact and 73% for policy directions of the total number of actual questions for this component.

Regarding selected social policy directions, the overall average impact ranked “□-▲ weak-moderate”. The highest perceived impact level was “▲ moderate” for the policy direction of “*fostering social equity and justice*”. While the remaining policy directions ranked “□-▲ weak-moderate” impact. In general, these results indicated that the mentioned policy directions were relatively less effective in this case study.

9.3.5 Key Participants’ Interview Responses on the Political-Organizational Planning Sub-process – Stakeholders Organization and Partnership - WHDS

In general, the planning process was publicly-driven, primarily monitored and directed by the City of Hamilton. The City established the “*Study Team Organization*” for preparing the WHDS which was headed by City Council and included a “*Steering Committee*” that coordinated the Study and had stakeholders’ representatives from the public sector, private sector and local community residents and groups (Exhibit 9.3).

The main issues included the cost of relocating the CN marshalling yard, level and intensity of development, road pattern and access, public open space versus private space, and the role of the Municipality in terms of funding.⁵¹² The main stakeholders’ conflicts included:⁵¹³

- City versus Existing Industrial Businesses (Public-Private conflict): The businesses wanted to stay while the *Concept Plan* called for their displacement.
- City versus Local Residents (Public-Community conflict): This was because of displacement of existing residential units and jobs. Also, there was conflicting opinions on development density and building height.
- City versus Hamilton Harbour Commission (Public-Public conflict): This was because of water lots owned by the latter, which would be affected by the new development.

Given stakeholders’ organizational set-up within the *Study Team*, collaboration and partnership included the following:⁵¹⁴

- Public-Public partnership between the City and CN Railways when the latter was a federal entity, trying to arrange the relocation of the CN marshalling yard.⁵¹⁵
- Public-Private-Community collaboration represented in the “*Visioning Game*” performed by the multi-stakeholder *Study Team Organization* and in public consultation meetings.
- Public-Private agreement between the City and the private CN Railways on the sale of the land to be used as the Harbourfront Trail.

⁵¹² Interviews with the City Director of Economic Development Department and City Urban Planner, 2000.

⁵¹³ The City Urban Planner outlined that despite of conflicting issues, there was an overall agreement on area redevelopment because the existing industrial and railway use was not feasible (Key Participants’ Interviews, 2000).

⁵¹⁴ Interview with the City Urban Planner, 2000.

⁵¹⁵ After CN privatization, the relocation of the marshalling yard would imply a cost of \$100 million to be paid as a sale price to CN. As mentioned by the Director of Economic Development, the City was unable to pay this price. However, the City paid the sale price for land used for the Harbourfront Trail (Key Participants’ Interviews, 2000).

The outcome of the planning process was a *Final Report for a Concept Plan* which was a vision for the West Harbourfront Precinct. The City was primarily involved in the overall project marketing to private developers at global, provincial and local levels. The project, as a whole was not implemented, partly due to unresolved stakeholders’ conflicts and not well defined development packages and phases. However, the Harbourfront Trail was implemented.

Impact Evaluation of the Political Problems & Selected Policy Directions⁵¹⁶

The overall average impact of selected problems ranked “▲-● moderate-strong,” which indicates their importance in the process (Exhibit 9.12). The highest ranking issues were “*political support*” that rated “● strong” impact and “*community support*” that ranked “■ very strong” impact. Also, the problems of “*conflicting goals of primary stakeholders*” and “*lack of special redevelopment authority*” ranked “▲-● moderate-strong” impact, which also indicate their relative importance. In general, the conflicting goals and interests were primarily between the public/City and private ownership of land to be redeveloped, mainly CN Railways, as well as between the City and community residents.⁵¹⁷

Exhibit 9.12: Impact Levels of Problems and Policy Directions: Political Component - WHDS			
Level of Impact		Problems and Issues	Policy Directions
Very Strong	■		• Community Support.
Strong	●	• Political Support.	
Moderate - Strong	▲-●	• Conflicting goals, interests, and values of primary stakeholders. • Lack of special redevelopment authority that is directly responsible.	• To develop special redevelopment authority. • To establish Public-Public partnership. • To establish Public-Private Partnership. • Public-Private-Community Partnership.
Moderate - Strong	▲	• Lack of stakeholders’ commitment to achieve objectives. • Lack of stakeholders’ consensus on major objectives & issues	
Weak - Moderate	□-▲	• Lack of stakeholders’ organizational and collaborative commitment.	
Overall Average		Moderate-Strong (▲-●)	Moderate-Strong (▲-●)

All selected policy directions regarding “*establishment of a redevelopment authority*” and “*stakeholders’ partnership*” ranked “▲-● moderate-strong,” which indicated their relative significance to this case study. One policy direction added by a respondent was “*community support*” and ranked it “■ very strong” impact. In conclusion, the impact evaluation indicates

⁵¹⁶ See Appendix A9.1 and Appendix A9.2 for complete responses from Key Participants on the structured (written) interview questionnaire. The Political component included a response rate of 60% for problems impact and 66% for impact of policy directions of the total number of actual questions for this component.

⁵¹⁷ In addition, there was a level of conflict in vision and approach between participating Departments within the Municipality (Key Participants’ Interviews, 2000).

that policy directions for stakeholders' collaboration and partnership would be essential for a successful redevelopment process.

9.3.6 Key Participants' Interview Responses on Implementation Planning and Phasing

The WHDS project was a City initiative with public pressure from local residents and business groups. Only part of the project was implemented, mainly the Harbourfront Trail.⁵¹⁸ Also, the first stage of site remediation of the "*Bayfront Park*" was previously implemented by the City of Hamilton in partnership with MOE and its success was an impetus for initiating the WHDS project. In general, the proposed "*Concept Plan*" was a physical-functional urban design project without clearly defined phasing strategy and prioritization for implementation; however, the "*Concept Plan*" included "*Development Districts*" which could have been used as the basis for a developing a phasing strategy and prioritization.⁵¹⁹ The City intention was to market the entire project to national and international developers who would be responsible for both phases of site remediation and site redevelopment.⁵²⁰ However, the marketing efforts did not succeed and the project did not go through. As outlined by the City project planner, and even though the WHDS project was not successful as a whole, incremental implementation by elements of the project was carried out like the "*Bayfront Park*" and "*Harbourfront Trail*".⁵²¹

Site remediation was performed by the City to the implemented parts of the project including "*Bayfront Park*" and the "*Harbourfront Trail*". Site remediation for "*Bayfront Park*" was linked with site redevelopment in terms of soil capping and grading which fulfilled environmental requirement and park design requirement.⁵²² Site remediation for the Harbourfront Trail was also linked with site redevelopment in terms of using the Trail pavement as part of the environmental mitigation measure to separate human contact from soil contamination. Approval time was not an issue since the overall project was not approved.⁵²³

⁵¹⁸ Interview with the City Urban Planner, 2000.

⁵¹⁹ Interview with the City Urban Planner, 2000.

⁵²⁰ Interview with the City Parks Division Manager, 2000.

⁵²¹ The City Urban Planner pointed out that there was intention to continue carrying out the redevelopment project with some modification to the original *Concept Plan* (Key Participants' Interviews, 2000). The City was also considering a public development corporation to implement this project and other projects in the area (follow-up meeting with the same project Senior Planner on June 15, 2009).

⁵²² As outlined by the Coordinator of Parks Development, site remediation and redevelopment for Bayfront Park were one package including four components: 1. Removing hazardous waste, 2. Burying all utility corridor, 3. Clay cap on site including minor regarding, 4. Shoreline protection. (Key Participants' Interviews, 2000).

⁵²³ Interview with the City Urban Planner (Key Participants' Interviews, 2000).

Impact Evaluation of Problems & Selected Policy Directions - Implementation Planning⁵²⁴

The responses from key participants’ interviews revealed that the overall average impact evaluation for selected problems ranked “▲-● moderate-strong,” which indicates their significance in this project (Exhibit 9.13). The highest impact level was “● strong” for “*difficulty of project initiation due to high risks and uncertainty*”, which is consistent with other responses. However, “*long time delays in the process*” also ranked “● strong” impact, but this was inconsistent with other responses by key participants especially when the City was acting as a developer and approval authority at the same time. The other problems ranked “▲-● moderate-strong”, which also indicate their relative importance.

Exhibit 9.13: Impact Evaluation of Problems & Policy Directions: Project Implementation - WHDS			
Level of Impact	Problems and Issues		Policy Directions
Strong	●	<ul style="list-style-type: none"> • Difficulty of proj. initiation due to high risk & uncertainty. • Long Time Delays in the Process. 	-
Moderate - Strong	▲-●	<ul style="list-style-type: none"> • Difficulty of phasing of site remediation as a 1st phase & site development as a 2nd phase. • Difficulty of gradual implementation phasing through sub-area dev. due to legal requirements. • Difficulty of gradual implementation phasing through sub-area dev. due to site conditions 	-
Moderate	▲		<ul style="list-style-type: none"> • Addressing site remediation 1st & site redevelopment as 2nd phase. • Adopting gradual site remediation & redev. strategy especially for large sites
Overall Average		Moderate-Strong (▲-●)	Moderate (▲)

The impact evaluation for the selected policy directions and guidelines of “*addressing site remediation first ...*” and “*adopting gradual site remediation & redevelopment strategy...*” ranked “▲ moderate” impact. It is important to note that the project was not implemented as a whole and site remediation and redevelopment was only performed to the smaller portion of the project. This may explain the “▲ moderate” overall average impact for the mentioned policies.

9.3.7 Key Participants’ Interview Responses on Key Policy Direction (TIF/TIEF) - WHDS

Key participants had indicated that a new redevelopment would have a significant impact on property values and tax base and that the City was considering looking into a form of Tax

⁵²⁴ See Appendix A9.1 and Appendix A9.2 for complete responses from Key Participants on the structured (written) interview questionnaire. The component of Implementation Planning & Phasing included a response rate of 50% for problems impact and 45% for impact of policy directions of the total number of actual questions for this component.

Increment Financing (TIF/TIEF) programme for brownfield redevelopment.⁵²⁵ The main problem facing this policy direction has been the legal framework within the Municipal Act that did not allow municipalities to give grants/bonusing to private developers except where it was exempted. In addition, it was indicated by a City official that a TIF/TIEF programme would be viable given that some obstacles and requirements were resolved and addressed.⁵²⁶

Impact evaluation of Problems and Policy Directions – Key Policy (TIF/TIEF) - WHDS⁵²⁷

As perceived by Key Participants, future property tax increments can capitalize the cost of site remediation within 15 years (Exhibit 9.14). Also, there was perception of “*legal and institutional constraints*” facing the implementation of TIF/TIEF programme, which ranked “▲-● moderate-strong” impact. However, the policy direction of “*developing a self-financing mechanism like TIF/TIEF programme*” also ranked “▲-● moderate-strong” impact which indicates potential viability. In conclusion, there was general understanding among key participants that the impact of redevelopment on future property values and tax revenue increments would be viable for establishing a TIF/TIEF programme.

Exhibit 9.14: Impact Levels of Problems & Policy Directions: Key Policy (TIF/TIEF) - WHDS		
Level of Impact	Problems and Issues	Policy Directions
Very Strong	■	<ul style="list-style-type: none"> • Future property tax increments after site redevelopment can capitalize site remediation cost within 15Y.
Moderate - Strong	▲ - ● <ul style="list-style-type: none"> • Problems facing TIF/TIEF plan like legal (Municipal Act) and institutional organizational factors. • After site development, the expected property tax increments for the site & surrounding properties will be low to finance site remediation cost. 	<ul style="list-style-type: none"> • Developing self-financing mechanism (like TIF/TIEF) to finance cost of site remediation (Canadian Context).
Overall Average	Moderate-Strong (▲-●)	Strong (●)

⁵²⁵ The City Urban Planner indicated City interest in this policy direction and mentioned that there was a general study prepared by Environmental Canada (May 1998) and focusing on “*Rising Property Values on Hamilton’s West Harbourfront: Effects of Environmental Restoration on Real Estate Prices*”. In addition, the City Director for Economic Development was positive about TIF program in general; however there were obstacles that need to be addressed (Key Participants’ Interviews, 2000).

⁵²⁶ As outlined by the City Director of Economic Development Department, those obstacles included: “• *Legislation amended in order to allow for segregating tax revenue to very specific projects associated with a TIF programme*, • *Legislation at provincial level to stratify environmental clean-up costs in relation to a TIF/TIEF programme*, • *Administrative structure for financial institution to monitor a TIF/TIEF programme*, • *School Boards and how to finance their component in the tax revenue*. Also, to find whether they are interested to participate, • It was also proposed to have TIF/TIEF programme with segregated costs including site remediation & preparation, infrastructure, and soft costs; and to exclude social costs (Key Participants’ Interviews, 2000).

⁵²⁷ See Appendix A9.1 and Appendix A9.2 for complete responses from Key Participants on the structured (written) interview questionnaire. The component of Key Policy (TIF/TIEF) included a response rate of 40% for problems impact and 25% for impact of policy directions of the total number of actual questions for this component.

9.3.8 Key Participants' Interview Responses on the Overall Planning Process – WHDS

The WHDS project was initiated by the City of Hamilton. The *Concept Plan* was providing pedestrian public places and mixed land use functions including residential, commercial, and people's entertainment areas. The objective was to create a place to live, work, shop, and entertain. The project attempted to address and balance the physical-functional setting, the environmental factors in terms of the WHP as well as the Hamilton Harbour, cultural heritage, in addition to stakeholders' organizational issues including local residents and interest groups.

Even though there was a "*Vision Game*" monitored by the multi-stakeholder *Steering Committee* and most of the stakeholders were involved in the process of developing the "*Vision/Concept Plan*", it was mentioned that the process was a "Top-Down" approach with a grand design vision prepared by the City.⁵²⁸ The *Concept Plan* was perceived by local residents and interest groups as a physical blue print plan following an urban renewal strategy of displacing existing residences, jobs, and built heritage.⁵²⁹

Evaluation in the planning process was presumably through political multi-stakeholders' representation, weighting elements by a representative *Steering Committee* and through a public consultation process. Trade-offs among stakeholders was on the basis of "Tit-for-Tat". However, the decision making process was not clear to most of the stakeholders. This was in addition to stakeholders' political and knowledge limitations. In general, the City was perceived as the key player in the decision making process, perhaps the City was both the project developer and approval authority.⁵³⁰ The main conflicting issues included level and intensity of development, displacement of residents and cultural heritage, the perimeter road and traffic flow pattern, public open space versus private open space, and role of municipality in terms of funding.

There was no clear plan for integrating planning sub-processes (environmental, physical, economic, social, and political) as if they were bits and pieces and the attempt was to attract potential developers to be responsible for redevelopment.⁵³¹ Even though, the project was not

⁵²⁸ The City Urban Planner mentioned there were limitations in the stakeholders' participation process due to political and knowledge factors. The City played the dominant role in decision making including the grand vision for the project. As stated by a local resident, they felt they were invited to the "*Vision Game*" rather than being involved in the decision making process (Key Participants' Interviews, 2000).

⁵²⁹ Interview with a local resident (Key Participants' Interviews, 2000).

⁵³⁰ Interview with the City Urban Planner and local residents, 2000.

⁵³¹ Interview with the City Urban Planner, 2000.

implemented as a whole, key participants at the City were keen about keeping development opportunities alive by making contacts with potential developers.⁵³²

Impact Evaluation of Problems & Selected Policy Directions - Overall Planning Process⁵³³

The overall average impact for selected problems ranked “▲-● moderate-strong” which indicates their relative importance in this case (Exhibit 9.15). The major interactive problems were “Environmental contamination versus project economic feasibility & marketability” that ranked “● strong” impact. While “*difficulty of developing future vision due to complexity and stakeholders’ varying views*” ranked “▲-● moderate-strong” impact. “*planning strategy*” was another important factor that was added by one respondent and ranked it “● strong” impact. The remaining interactive problems ranked “▲ moderate” impact. This indicates that problems within the overall planning process were complex and interactive.⁵³⁴

Exhibit 9.15: Impact Levels of Problems & Policy Directions: Overall Planning Process - WHDS			
Level of Impact	Problems and Issues		Policy Directions
Strong - V. Strong	●-■		<ul style="list-style-type: none"> • Having clear vision for the project. • Commitment to planning especially in dealing with large sites.
Strong	●	<ul style="list-style-type: none"> • Interactive problems: environmental contamination risks & liabilities versus project econ. feasibility & marketability. • Planning strategy (by key participant). 	<ul style="list-style-type: none"> • Adopting integrative planning framework to link major planning sub-processes including site remediation, physical planning, financial planning & marketing, social planning, and stakeholders’ consensus & partnership
Moderate - Strong	▲-●	<ul style="list-style-type: none"> • Difficulty of establishing future site redevelop. vision due to Multiple-Component Complexity. • Difficulty of establishing future site redev. vision due to stakeholders’ multiplicity & varying views. 	
Moderate	▲	<ul style="list-style-type: none"> • Interactive problems: environmental contamination risks & liabilities versus <ul style="list-style-type: none"> - Physical-Functional declining image. - Stakeholders’ conflicting objectives. - Social equity & security issues. • Difficulty of integrating multiple planning processes including: site remediation, physical planning, financial planning & marketing & stakeholders’ consensus & partnerships. 	
Overall Average	Moderate-Strong (▲-●)		Strong (●)

⁵³² Interviews with the Manager of Parks Division and City Urban Planner, 2000.

⁵³³ See Appendix A9.1 and Appendix A9.2 for complete responses from Key Participants on the structured (written) interview questionnaire. The Political component included a response rate of 49% for problems impact and 60% for impact of policy directions of the total number of actual questions for this component.

⁵³⁴ Even though the actual response rate represented 49%, the nature of responses was valid and represented the informant’s good knowledge about this component. It is important to note that the context is essentially complex and requires extensive knowledge about the overall planning process, which was not the case with all informants.

In general, all selected policy directions and guidelines ranked in the range of “● strong” and “●-■ strong-very strong” impact. The results indicate their significance and adopting an integrative planning approach with a clear vision was related to such large projects.

9.4 CASE STUDY FINDINGS

The case study findings are outlined according to the eight research units of analysis derived for the empirical research method (Chapter Five). The synthesis will outline the planning sub-process(es) within each component in addition to linkages among planning sub-processes.

9.4.1 Environmental-Legal Component: Site Remediation Planning Sub-process - WHDS

Environmental site assessment and remediation was only performed for certain parts of the WHDS area including the Harbourfront Trail and Bayfront Park.

Environmental Site Remediation Sub-process - Bayfront Park

The City acquired the site through expropriation hearing and was not aware of the level of site contamination as a landfill of construction debris and industrial waste. The City assumed legal liability for site clean-up without going back to original owner-polluter. MOE secured major funding for the project provided that the City would implement a clean-up plan following Section 46 of the EPA for landfill remediation and to develop the site as a waterfront park. The City provided the remaining amount of funding. A site remediation plan was developed by a private consultant in collaboration with MOE in accordance with Section 46 of the EPA and following a Site Specific Risk Assessment approach (SSRA). The plan included the removal of hazardous waste on top of the soil and providing a protective clay cap instead of total removal of contaminated soil. The implementation of site remediation and redevelopment of the park were performed simultaneously. As part of the plan, the MOE required from the City to perform ground water monitoring for two years in order to insure that contaminants were not migrating into the Harbour. The City had to provide indemnification for MOE from future legal liabilities. The project was considered a successful model for site remediation and redevelopment.⁵³⁵

Site Remediation Sub-process - Harbourfront Trail.

Site environmental contamination included petroleum contamination at sub-surface soil, in addition to ground water contamination. The City of Hamilton purchased the strip of land from CN Railway “As-is”, which implied that the City would assume responsibility for site environmental remediation. The selected site remediation approach was SSRA following MOE

⁵³⁵ City of Hamilton (March 1997).

Guidelines of 1997. Site contamination was very widespread and difficult to separate spot area contamination due to the narrow nature of the site and migratory nature of ground water contamination. The risk management approach was to cap the Trail area with a solid material like asphalt or concrete to avoid contact between receptors (humans) and potential site contamination. The site remediation process was proponent driven by the new owner (City of Hamilton) and its environmental consultant. Accordingly, record of site condition was not required by MOE. Monitoring for ground water contamination was not required within the Harbourfront Trail land because it was performed by CN Railway within the adjacent rail land.

Connectivities/Linkages in the Environmental Site Remediation Sub-process

The main linkages between site remediation and other sub-processes were as follow:

- Site Contamination and Remediation versus Future Land Use
- Site Contamination and Remediation versus Clean-up Cost & Initial Property Prices
- Within Site Contamination versus Surrounding Environmental Conditions
- Site Contamination and Remediation versus Future Land Use: In both cases of the

Harbourfront Trail and Bayfront Park, the required site remediation was directed toward a specific use, which was public open space. In the case of the Bayfront Park, site remediation was according to Section 46 of the EPA for a landfill site which specifies future land use as public open space. In general, clean-up criteria vary according to proposed land use functions.

- Site Contamination and Remediation versus Cost of Clean-up and Property Price: Cost of site remediation for the Bayfront Park was prohibitive to the City of Hamilton and it was MOE grant to the City that triggered the process. Also, the adopted SSRA approach for site remediation was relatively more cost-effective. In the case of the Harbourfront Trail, financing was available from remaining funds from Bayfront Park. However, for the area of the CN rail yard and surrounding industrial properties, there was no real study as to how much site remediation would cost.⁵³⁶ In addition, mean property prices had been rising faster within the WHP than in other areas and there was an increasing mean property price gradient in terms of proximity to the waterfront.⁵³⁷

- Within Site Contamination/Remediation versus Surrounding Environmental Conditions:

The Harbourfront Trail was originally part of the overall CN rail area and was sold to the City.

⁵³⁶ However, there was a study that estimated the cost for relocating the CN marshalling yard to Aldershot for about \$100 million (City of Hamilton, 1995).

⁵³⁷ During the period from 1983 to 1996, there was about 115% increase in mean property values within the West Harbourfront Precinct, while the increase in other areas was about 33% (Environment Canada, 1998).

Site contamination within the Harbourfront Trail was a resemblance of the overall CN rail area. Since ground water remediation and monitoring was performed in the overall CN rail area, then ground water monitoring was not required within the Harbourfront Trail. Also, site contamination (both soil and groundwater) within these areas including Bayfront Park may have an effect on the Hamilton Harbour due to the migratory nature of ground water contamination.

An important conclusion is that the outlined linkages formed multiple chain including “Site Remediation - Future Land Use - Clean-up Cost – Environmental Clean-up Requirements.”

9.4.2 Physical-Functional Component: Physical-functional Planning Sub-processes
Land Use Planning and Urban Design Sub-processes

The *Concept Plan* was primarily a physical-functional planning product, including a land use plan, an urban design vision and district sub-division plan for the WHP, and to a certain extent building architectural design. The physical-functional planning sub-processes represented the core planning vision and the other components and their pertinent planning sub-processes were in a way complementary including the environmental, social, political and economic planning sub-process. The physical-functional planning sub-processes may be classified at several interrelated and hierarchical spatial levels. The contextual applications of each level of the planning and design sub-processes, in addition to the government regulatory basis for each level are outlined in Exhibit 9.16. It is important to note that the regulatory planning process as exemplified in the Regional and City Official Plan, Central Area Plan, and Zoning by-laws, have been primarily based on physical-functional criteria and objectives.

Exhibit 9.16: Physical Levels of the Planning Process and Their Contextual Application - WHDS			
	Physical Levels of the Planning Process	Case Study Contextual Application	Government Plans Regulatory/Legal Basis
1.	Land Use Planning	<ul style="list-style-type: none"> • Review of City Official Plan and Zoning and Required Amendments. • Review of Central Area Plan • Review of Neighbourhood Plans • Precinct Land Use Schematic Plan. 	<ul style="list-style-type: none"> • Planning Act • Official Plan for the Region of Hamilton-Wentworth • City Official Plan. • Central Area Plan • Zoning By-laws
2.	Urban Design West Harbourfront Precinct Subdivision	<ul style="list-style-type: none"> • West Harbourfront Precinct Concept Plan • Bayfront Park and Pier 4 Park Concept Plan • West Harbourfront Districts Plan • Three Dimensional Model for Precinct Concept Plan. • Urban Design and Development Guidelines • Comprehensive Heritage Study. • Transportation Studies • Site Development Models 	
3.	Architectural Design	<ul style="list-style-type: none"> • The Heritage Study including identification of Buildings of Architectural and/or Historic Interest. 	

As perceived by Key Participants in the process, the proposed *Concept Plan* was based on major transformation and removal of existing buildings and city street pattern, which was in a way similar to an urban renewal approach for redevelopment. The *Concept Plan* would imply removal of existing heritage buildings/houses and jobs, which was against original planning objectives. The studies for site development models included only two alternative scenarios of keeping or relocating the marshalling yard and the latter was selected for the proposed *Concept Plan*. However, no comparative evaluation was performed for other alternatives like urban infill approach that would retain existing buildings and city fabric or showing lower levels of physical transformation. Providing alternative redevelopment options and comparative evaluation of those alternatives could provide a better coverage for different stakeholders' views as well as providing flexibility of choice among alternatives. Having one proposed alternative *Concept Plan*, even though stated as a planning vision, gave the impression of a fixed blue print plan that was imposed on the public. The local community opposed the *Concept Plan*.

Connectivities/Linkages in the Physical Planning Sub-process

Linkages between the physical-functional planning sub-process and the environmental planning sub-process were discussed in the previous section.⁵³⁸ Connectivities with other planning sub-processes included the following:

- West Harbourfront Precinct (WHP) *Concept Plan* versus Bayfront Park
- WHP *Concept Plan* versus Hamilton Bay
- WHP *Concept Plan* versus Phasing of Project Implementation
- WHP *Concept Plan* versus Stakeholders' Views and Objectives
- WHP *Concept Plan* versus Bayfront Park Plan: The successful implementation of the

original Bayfront Park project was one of the main incentives for initiating the WHDS project. Also, in terms of the project *Concept Plan* and the proposed subdivision into Development Districts, the "*Bayfront Park District*" was planned as a continuation of the "*Special Attractions District*" and the "*Historic District*" which all together formed the waterfront edge. Development Districts are interrelated and altogether they form the overall plan.

- WHP *Concept Plan* versus Hamilton Harbour: The location of the WHP at the waterfront of the Hamilton Harbour was a significant factor in terms of the historical context of the area, as well as for public access and appreciation of the Harbour as a natural resource.⁵³⁹

⁵³⁸ The environmental linkages included "Site Contamination/Remediation versus Future Land Use".

- WHP Concept Plan versus Phasing of Project Implementation: The WHP “Plan”, even though a “Concept,” lacked a clear definition of a prioritized phasing of implementation plan. Also, a phasing plan should address how environmental site remediation would be performed within the overall site redevelopment process, which was not clearly defined as well. A prioritized phasing of implementation plan would help in giving a vision for an incremental and adaptive implementation of the overall Plan. The Cultural Landscape units and the proposed subdivision of the Development Districts Plan could have been used as the basis for a prioritized phasing of implementation. The CN marshalling yard and surrounding industrial areas formed the heart of the WHP, which had the potential to be phase one in the redevelopment process.

- WHP Concept Plan versus Stakeholders’ Views and Objectives: The proposed Diagonal Axis for the open space system together with the Perimeter Road implied major modification and change of the historical city fabric for the street network, removal of 300 houses including heritage buildings, as well as changing the form and character of the Central Park. Also, this was inconsistent with the project objectives of heritage conservation. The proposed major transformation was negatively perceived by local residents and other stakeholders. This difference in planning vision and objectives created conflicts among main stakeholders and resulted in opposition to the project.

9.4.3 Economic Component: Economic Planning Sub-process

Financial Planning & Marketing – WHDS: The WHDS project was publicly initiated and sponsored.⁵⁴⁰ However, financing of individual site redevelopment was envisioned to be through private sector developers except for the Harbourfront Trail that was financed by the City. Also, funding of infrastructure development was to be carried by the public sector.⁵⁴¹

The project did not include an integrated economic feasibility study for the WHDS or part of it. However, the City prepared an overall economic impact analysis for the *Concept Plan* including *Construction Analysis* (cost), employment analysis, visitors’ attendance and spending, tax assessment, and development charges. In addition, cost analysis was provided for the

⁵³⁹ Maximizing public access to the Harbour was a primary objective. A key component of the *Concept Plan* was the pedestrian/bicycle Trail that extended from Eastwood Park to Cootes Paradise & Desjardins Canal to Valley Inn Rd., where the Trail would link with the Waterfront Trail in Burlington (City of Hamilton, 1995).

⁵⁴⁰ The City of Hamilton was the main driving force in the planning process. The City Council approved a budget of \$300,000 to finance the Study of the WHDS (Key Participants’ Interviews, 2000).

⁵⁴¹ For financing major infrastructure development, the City was envisioning a Super Build Fund where the federal, provincial and municipal governments would each contribute one third of the total cost (Interview with City Director of Economic Development Department, 2000).

different functional components of the project for the purpose of establishing the Capital Budget required for the project. The cost estimates of the *Construction Analysis* did not include the cost of environmental site remediation, which in away did not reflect the real cost for redevelopment. Also, there was no indication that the required funds were available or can be provided for the cost items that were supposed to be covered by the municipality. More than half of the estimated costs were to be provided by the private sector, which would be pending project financial feasibility and marketability.

In addition, a form of feasibility study was performed for the relocation of the CN marshalling yard including space availability at the alternate location at Aldershot, Burlington as well as cost analysis for relocation.⁵⁴² Considering the relocation of the CN marshalling yard as the cornerstone for the WHDS project, it would have been instrumental as a marketing tool if a preliminary financial feasibility (return on investment) was performed for the redevelopment of this area. Also, it would be more viable if this key portion of the project was defined as a separate phase one redevelopment so that a specific financial feasibility and marketability study would be performed on a smaller scale project area instead of the overall *WHP Concept Plan*.

Project Marketing - WHDS: Project marketing was based on targeting developers at the global, national, and local levels. The marketing approach for the City of Hamilton and its planning team, who were the driving force for this project, was to have a modest marketing campaign in order to introduce the project to developers and to create awareness of project location within Southern Ontario and within the North American context.⁵⁴³ The project was presented for the entire *WHP Concept Plan*. However, the project would be more marketable to developers if it was clearly defined in terms of smaller redevelopment packages/phases, with financial feasibility for priority phase, as well as defined costs and liabilities of environmental contamination and required site remediation.

⁵⁴² The Study gave an order of magnitude cost estimate of \$100 million for relocating the yard. As mentioned in the Study, the cost estimate excluded land acquisition, operational and environmental impacts, and employee dislocation costs. CN wanted the sale of land agreement to be “As-is” and “Where-is,” which implied that the purchaser/City would be liable for site environmental remediation cost. The City was unable to cover the above mentioned costs for the marshalling yard and other sources of funding would be required (Key Participants’ Interviews, 2000).

⁵⁴³ The City prepared a project marketing brochure that outlined the project as well as the City context. This was used as part of their marketing tools. In addition some of the planning team members had attended an international conference in San Francisco titled “Global Super Projects Conference,” attempting to meet potential international developers for the project (Key Participants Interviews, 2000).

Connectivities/Linkages in the Economic Planning Sub-process:

The linkages between the economic planning sub-process versus the physical and environmental planning sub-processes were previously outlined. The main linkages with other planning sub-processes include the following:

- Project Economic Feasibility versus Cost of Site Remediation
- Project Economic Feasibility versus Multiple Private Property Ownership
- Project Economic Feasibility versus Heritage Conservation & Building Density
- Project Marketability versus Perception of Site Contamination/Remediation
- Project Marketability versus Project Financial Feasibility
- Project Economic Feasibility versus Cost of Site Remediation: The cost of environmental site remediation was not clearly defined, which created a negative perception and uncertainty about project economic feasibility. As conveyed by key participants in the process, cost of site remediation had a “Strong” impact on project financial feasibility.
- Project Economic Feasibility versus Multiple Private Property Ownership: One of the main problems that faced the planning team was the multiple property ownership which was predominantly private. In the case of the CN marshalling yard, CNR was initially a federal agency and during the WHDS project it was privatized. This condition added a cost of purchasing the land and preparing it for redevelopment that was exhaustive to the City. Also, this would leave the two packages of site remediation and site redevelopment be performed by the prospective private developer.
- Project Economic Feasibility versus Heritage Conservation & Building Density: High cost of heritage building conservation was perceived by key participants in the process as having a “moderate-strong” impact on the project and its economic feasibility.⁵⁴⁴ Also, project economic feasibility was related to building density and consequent usable floor space. The planning team attempted to achieve a balance between building density/height and the natural heritage by not exceeding the height of the Niagara Escarpment (10 stories).
- Project Marketability versus Perception of Site Contamination & Remediation: Perception of site contamination and related liabilities had a negative effect on the perceived project feasibility and project marketing. To overcome this negative perception, it would be

⁵⁴⁴ Conservation of heritage buildings and sites could be contained and implemented as an individual package within the project. Also, heritage building conservation could be linked with the overall project and cost of heritage conservation could be provided by the private developer in exchange of added building density and according to Section 37 of the Heritage Act, which allows bonuses for the purpose of securing heritage easement agreement.

essential to address environmental assessment and define cost of site remediation in the beginning of the process rather than leaving it open for developers perception.

- Project Marketability versus Project Financial Feasibility: For project marketability to global and local developers, it would be essential that an economic/financial feasibility be clearly outlined for at least a portion of the project. The WHDS included cost analysis of certain components which could be used by potential developers in preparing their own feasibility studies. But there were undefined cost components like the cost of environmental site remediation and its future liabilities, which could raise concerns about project feasibility. As perceived by Key Participants in the planning process, the impact of the problem of “project perception being economically not feasible” had “Moderate-Strong” impact on the project.⁵⁴⁵

9.4.4 Social Component - Social Planning Sub-process:

Social Equity & Safety Planning & Related Issues: The overall planning process did not include a specific social planning sub-process. However, the process included numerous social objectives.⁵⁴⁶ Also, the process did not include a defined social equity planning in terms of distribution of costs and benefits as well as accessibility of local residents to potential new jobs and other opportunities; however there was awareness about social equity issues during the process.⁵⁴⁷ Local community residents and groups had concern about residential displacement and relocation as a result of the proposed plan. Also, there was concern about losing jobs as a result of displacing some existing industrial functions as well as travelling farther distances as a result of relocation of CN yard. Even though the proposed plan included new residential units and new jobs, local residents perceived the project as losing existing resources and opportunities including building and city heritage. In addition, local residents did not perceive that they will have secured access to newly generated jobs and opportunities, given a competitive market. One reason was possibly the lack of social equity plan that would secure this access.

Also, social safety and security planning was not explicitly addressed in the process. As perceived by Key Participants in the planning process, there was no crime, vandalism or other

⁵⁴⁵ Key Participants’ Interviews, 2000.

⁵⁴⁶ The *Concept Plan* included several social objectives: • Enhancing public access to the Harbour including a pedestrian trail along the project waterfront, • Redeveloping public parks like Bayfront Park, • Conservation of heritage buildings and sites, • Environmental restoration within the Harbourfront, • Providing numerous public cultural functions. Also, the process targeted significant socio-economic objectives including: • Job creation, • Increasing municipal tax base, • Transforming the blighted site image into a vibrant mixed use complex.

⁵⁴⁷ Interview with City project planner (Key Participants’ Interviews, 2000).

security problems within the project area. However, the perceived impact of the problem of “social stigmatization of the area”, ranked “Moderate-Strong” impact.

The redevelopment planning process was in a way community based, in terms of having community representatives in the WHDS *Steering Committee* that monitored the planning process (Exhibit 9.3). In addition, there were several public meetings involving local and city residents in the process. However, local community residents did not perceive real participation in the decision making process in formulating the proposed plan. Also, local residents had negative perceptions on the proposed *Concept Plan* as a fixed blue print, single alternative option plan. This might have been resolved by having multiple alternative options for the proposed plan and more public involvement in the selection of the final plan.⁵⁴⁸

In conclusion, and even though the redevelopment process would result in added positive social and socio-economic values, there was perceived negative impact on local residents and City residents at large. This resulted in community opposition and project failure. Having a defined social planning sub-process with sustained community involvement would increase chances of community acceptance of the project.

Connectivities/Linkages in the Social Planning Sub-process

The main linkages between the social planning sub-process and other components included:

- Proposed Plan and Land Use Functions versus Residential Neighbourhoods
- City and Community Objectives versus Perception of Heritage Conservation
- City & Community Objectives versus Perception of Blighted Contaminated Sites
- Proposed Plan and Land Use Functions versus Existing Residential Neighbourhoods

One of the objectives of the WHDS was “*to integrate future development and be compatible with adjacent residential neighbourhoods and the community at large.*” However, the proposed plan included major physical-functional transformation on parts of the southern neighbourhood, which resulted in displacement of a considerable number of houses, some of them having heritage value. Also, there was concern among residents over losing affordable housing which resulted in residents’ opposition to the project.

- City and Community Objectives versus Heritage Conservation

Conservation of cultural heritage was a major recommendation of the West Harbourfront Heritage Study which outlined five major cultural landscape units, as well as the built heritage

⁵⁴⁸ The alternative plan options may show various levels and forms of urban transformation with flexibility for modification and adaptability over time.

features within the project area.⁵⁴⁹ Also, conservation of the natural heritage was a main objective in the WHDS. In addition, cultural and natural heritage conservation was the vision of local residents. Even though heritage conservation was a sought objective in the WHDS, the proposed plan included partial transformation of the historical city fabric and displacement of heritage buildings which was inconsistent with heritage planning objectives.

- City & Community Objectives versus Perception of Blighted Contaminated Sites

As perceived by Key Participants in the process, the problem of social stigmatization of the Harbourfront area near the CN rail corridor and adjacent industrial sites was a strong factor in the project. City and community objectives were in transforming the unutilized contaminated site into a relatively healthier mixed use complex. However, this was a costly process.

9.4.5 Political Component: Political Planning Sub-process

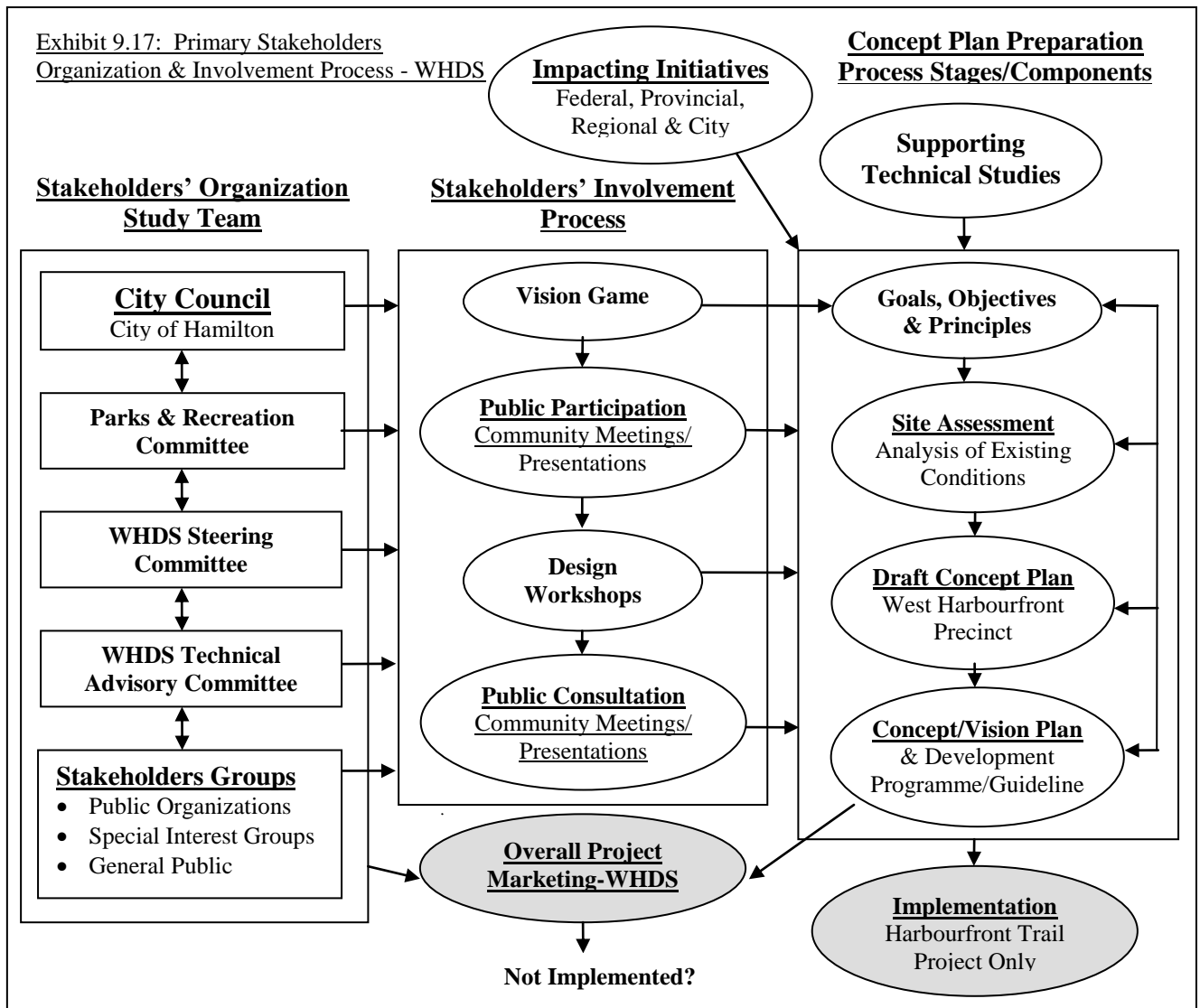
Stakeholders' Organizational Planning & Partnership: In general, the planning process was publicly-driven, primarily monitored and directed by the City of Hamilton. The City established a “*Study Team Organization*” with a *Steering Committee* that coordinated the project and included representatives from the public sector, private sector, and community residents and groups. In addition, the “*Study Team Organization*” also included a *Technical Advisory Committee* and other *Stakeholder Groups* that were represented by public organizations, special interest groups, and the general public (Exhibits 9.3 & 9.17).

The “*Study Team Organization*” was a form of multi-stakeholder collaborative planning process and partnership; however the City had the final planning decision and approval. Stakeholders’ involvement included a “*Vision Game*”, “*Design Workshops*” and *Public Consultation* represented in community meetings and presentations. The outcome of the process was the *Concept Plan* for the West Harbourfront Precinct that was approved by City Council.

The stakeholders’ involvement process including the “*Vision Game*”, “*Design Workshops*”, and *Public Consultation* was in a way representing the rational decision making stages in terms of analysis, synthesis, and evaluation.⁵⁵⁰ Exhibit 9.17 briefly outlines stakeholders’ organizational set-up and involvement process in the preparation of the *Concept Plan* for the WHP.

⁵⁴⁹ The West Harbourfront Heritage Study was part of the WHDS (City of Hamilton, February 1995).

⁵⁵⁰ The “*Vision Game*” including the preparation of goals and objectives in addition to the site assessment represented the Analysis stage. The *Design Workshops* that helped in synthesizing ideas for the *Concept Plan* represented the Design Synthesis stage. While Evaluation was represented by the reviews by the *Steering Committee*, *Public Consultation* process and finally review and approval by City Council.



The “*Study Team Organization*” was a very useful organizational tool in getting the various views and objectives of different stakeholders including local citizens and in the beginning of the process. This collaborative organizational set-up had the potential to resolve conflicting views and objectives, given there was a level of inclusion of different stakeholders’ in the decision making process. The “*Concept Plan*”, even though only a vision, was finally decided by the City as a single alternative urban design option with major displacement of residential units and jobs in addition to transformation of existing street pattern.⁵⁵¹ This was in conflict with views of local community residents and groups. Anyway the “*Concept Plan*” was

⁵⁵¹ Even though the process was collaborative in the beginning and including various stakeholders, the perception by local residents was that the decision was ultimately made by the City (Key Participants’ Interviews, 2000).

approved by City Council. Since the task of preparing the “*Concept Plan*” was completed, City recommendation was to disband the “*Steering Committee*” and “*Technical Advisory Committee*”.

The “*Concept Plan*” was a preliminary planning stage to attract potential developers to the project. The City was primarily involved in the overall project marketing. The project, as a whole was not implemented. However, the Bayfront Park and Harbourfront Trail projects were implemented and the City was acting as the developer and approval authority at the same time.

Connectivities/Linkages in the Political-Organizational Planning Sub-process

Some of the connectivities between the political-organizational planning sub-process and other sub-processes were discussed in the previous sections. In addition, connectivities can be in the form of collaboration and partnership or common objectives between or among main stakeholders. The “*Study Team Organization*” and stakeholders involvement in the “*Vision Game*”, “*Design Workshops*” and “*Public Consultation*” meetings was a good example of Public-Private-Community collaboration and partnership (Exhibit 9.3). Development agreement was not made for the overall project since it did not go through complete implementation. However, there was a real estate transaction/purchase agreement for the Harbourfront Trail between the City and CNR (Public-Private).

In the case of the Bayfront Park, the main partnership was between MOE and the City (Public-Public) in terms of being the main financier and developer for the project. In addition, there was collaboration among the Hamilton Harbour Commission, the City of Hamilton, and Chamber of Commerce on related issues in the process.

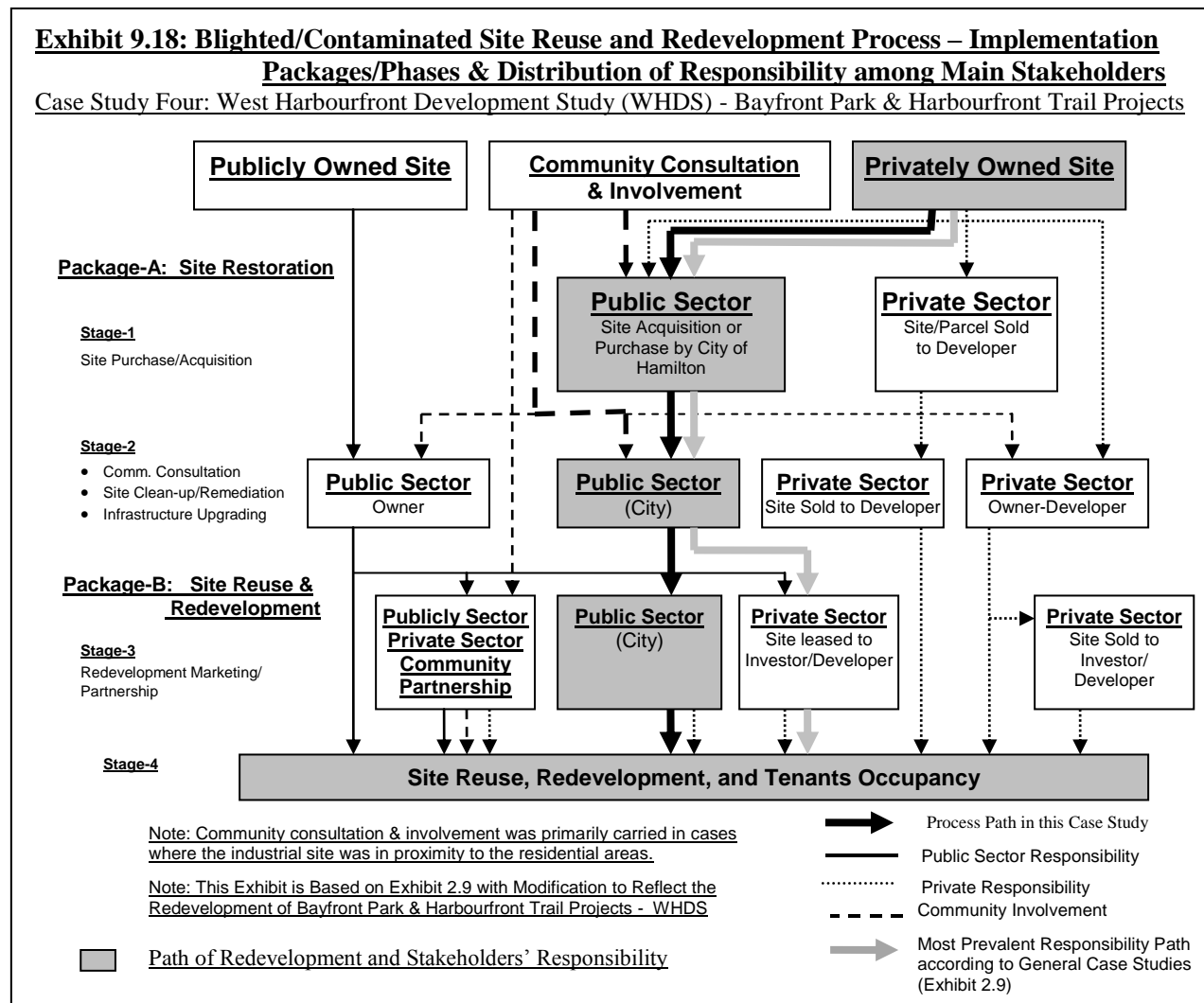
9.4.6 Project Implementation Planning & Phasing – WHDS (Exhibit 9.18)

Only part of the WHDS project was implemented, mainly the Harbourfront Trail, in addition to the Bayfront Park. In general, the project *Concept Plan* did not include a clearly defined phasing strategy for implementation that would allow incremental site redevelopment, given the large area of the WHDS project. However, the project physical plan included development districts that could be used as a basis for a prioritized phasing strategy.⁵⁵² Furthermore, the City did not address the cost of site remediation for the overall project as well as for the relocation of the CN

⁵⁵² Subdivision of the overall site into smaller redevelopment packages would stagger the financial burden and allow for an adaptive change in the Plan. The major redevelopment component was the relocation of the marshalling yard which could have been phase one in the redevelopment. The City could not afford financial cost for this phase at that time (\$100 million) (Key Participants’ Interviews, 2000). Marketing for potential developers could have been primarily for this phase with the potential of implementing the remaining phases later on.

yard. The reliance of the City was primarily on getting strong developers who could handle the overall or parts of the project in terms of site remediation and site redevelopment. This process would have been more feasible and marketable if the project plan included a prioritized phasing for implementation strategy and to start with relatively smaller area phases.

The Bayfront Park and Harbourfront Trail projects could also be considered as the initial phases of the overall project redevelopment. For these projects, site remediation and site redevelopment were performed as one package due to the linkages between the two processes.⁵⁵³ In both cases, the City was primarily responsible for implementation. Exhibit 9.18 outlines the phasing of implementation packages and the pertinent redevelopment path for primary stakeholders' responsibility.



⁵⁵³ Site remediation for Bayfront Park was according to Section 46 of the EPA, which included criteria for transforming a landfill site to public open space. For the Harbourfront Trail project, site remediation was based on a SSRA approach,

9.4.7 Key Policy Direction - Tax Increment Financing (TIF/TIEF) as a Self-Financing Tool to Cover Cost of Site Remediation-WHDS

The objective in this section is to evaluate whether future tax increments after site redevelopment can potentially finance the cost of site remediation. Responses from Key Participants in the process indicate that future property tax increments can capitalize the cost of site remediation within 15 years. However, there was perception of legal and institutional constraints facing the implementation of TIF/TIEF programme in the Canadian context. The main problem facing this policy direction is the legal framework within the Municipal Act, which does not allow municipalities give grants/bonusing with certain exceptions.⁵⁵⁴ In addition, a key participant had indicated other needed requirements for establishing a TIF/TIEF programme including legislation to allow for segregating tax revenues for specific projects, provincial legislation to stratify environmental clean-up costs related to a TIF/TIEF program, administrative structure for financial institution to monitor the programme, and how to finance school board component in the tax revenue, if included in the programme.⁵⁵⁵

In addition to the above, a study by Environment Canada that examined property values on Hamilton's West Harbourfront near Bayfront and Pier 4 Parks, had concluded that "*clean-up and restoration of formerly contaminated and derelict land, as well as improvements to the harbour's water quality, contributed to higher property values in the area.*"⁵⁵⁶

In conclusion, TIF/TIEF programme, as a policy direction, has potential viability within this context. However, further research is required to address the mentioned obstacles and requirements, especially the legal framework within the Municipal Act and the Planning Act, in order to finalize this policy.

9.4.8 Overall Multiple Component Planning Process - WHDS

The WHDS project was initiated by the City of Hamilton. However, developing the "*Concept/Vision Plan*" was in a way collaborative among main stakeholders. The City

⁵⁵⁴ Section 28 of the Planning Act, and within designated community improvement areas, allows municipalities to provide grants or loans. This approach had been used by some Ontario cities/municipalities like London and Thunder Bay to set up programmes (like Tax Increment Equivalent Financing – TIEF) for the purpose of providing property owners with grants equivalent to a deemed tax increment (MMAH 2000a, Brownfields Showcase).

⁵⁵⁵ Interview with the City Director for Economic Development Department, 2000.

⁵⁵⁶ *The study's conclusion is based on two observations from real estate transactions over a 14-year period: 1) Distance from the parks and distance from the waterfront had measurable and significant effects on property values in the West Harbourfront, and these effects became increasingly positive as harbour clean up progressed and as the parks were opened. 2) Between 1983 and 1996, property values in the West Harbourfront area increased significantly more than values in a control group of similar properties farther from the parks and waterfront (Environment Canada, May 1998).*

established a “*Project Team Organization*” including a *Steering Committee* that monitored the planning process and consisted of representatives from the City, business community, citizens and the Hamilton Harbour Commission (Exhibit 9.3). Even though the planning process included multi-stakeholder collaboration, ***the perception by the local community was a Top-Down planning process.***

The *Concept Plan* for the WHP was ***predominantly physical-functional land use plan and urban design vision.*** The main issues of other components (like environmental site remediation, project financial feasibility, and achieving social equity in terms of distribution of generated opportunities/jobs and access), if considered, were not integrally applied in the *Concept Plan*. Site remediation cost was not considered in the project as a whole or in the feasibility study for relocating the marshalling yard. Also, the *Concept Plan* did not include a financial feasibility study that would outline the return on investment as whole or for a phase in the project.⁵⁵⁷ Furthermore, the proposed *Concept Plan* included major transformation in the urban fabric which would have a negative social impact in terms of displacement of existing residential units and city street pattern that were part of cultural heritage. As a result, there was opposition from local residents and interest groups. This is a good example that highlights the importance of balanced integration among planning components (environmental, physical, economic, social, political) and to avoid prior bias toward a certain component as it was the case in the proposed *Concept Plan* towards the physical-functional component.

In addition, ***the Concept Plan was finally a single alternative proposal.*** Normally, the planning process provides several alternative plan options for comparative evaluation, especially at a concept plan stage and when in complex conditions like brownfield redevelopment.⁵⁵⁸ The proposed *Concept Plan* was also inconsistent with the project objectives of heritage conservation and achieving social benefits which finally created conflicting views among stakeholders. A favourable condition in the planning process would be to reflect stakeholders’ interests and visions in order to reach common grounds and to avoid conflicts. This could have been achieved by providing alternative options for the *Concept Plan* that would reflect the various stakeholders’

⁵⁵⁷ The WHDS Study provided cost analysis for project components including the relocation of the marshalling yard as well as an economic impact analysis in terms of job generation and increased tax revenues after redevelopment.

⁵⁵⁸ Two alternatives were considered in preparing the *Concept Plan* based on the options of relocating the marshalling yard and keeping it in its current location. The first option was finally selected. Alternative options for the *Concept Plan* should also consider other critical and conflicting issues like an infill redevelopment option without removing existing buildings and transforming city fabric. This is critical because the proposed physical *Concept Plan* would result in high level of transformation and displacement of city historical fabric and buildings.

views and objectives. Alternative options for the *Concept Plan* may remain through the marketing stage in order to include further evaluation and input from potential developers.

It is important to note that the ***WHDS project was only a study and preliminary Concept Plan and vision*** for the redevelopment of a relatively large area. Actual redevelopment would require more detailed planning and design at relatively smaller scale areas or precincts. As mentioned in the WHDS Report, the proposed *Concept Plan* could be modified when working out the micro-level planning and design details. Furthermore, the *Concept Plan did not include a clear phasing of implementation and prioritization strategy*. However, the *Concept Plan* provided for the subdivision of the overall project area into “*Development Districts*”, which might be considered as the basis for prioritized phasing of implementation. Since the relocation of the CN marshalling yard was the key to project redevelopment, this area District Plan could have been phase one implementation.

Marketing the project for national and international developers was based on the overall *Concept Plan* that was associated with uncertainty in terms of unclear phasing of implementation strategy and unclear project financial feasibility, in addition to uncertainties of environmental contamination liabilities and clean-up cost. The City reliance was on attracting potential developers who would be responsible for working out the details of the project and the results were not successful. A better marketing approach might include a clear definition of implementation phasing and to emphasize phase one (like marshalling yard area) with a tentative financial feasibility study (return on investment) for at least this phase. Also, it is important to keep the vision for the overall *Concept Plan* in order to relate micro-level planning (phase one) with macro-level vision (WHDS) as well as the City as a whole.

Characteristics of the Overall Planning Process – WHDS

The overall planning process can be characterized as complex in terms of multiple components, multi-disciplinary, large project area, and multiple stakeholders with varying views and interests. An outline of this complexity is as follows:

1. **Multiple-Component Planning Process:** The overall planning process may be envisioned as a synthesis of the following planning sub-processes within multiple components:
 - **Environmental Planning Sub-process:** This primarily included environmental site remediation and restoration planning which was implemented for the Bayfront Park project as well as for the Harbourfront Trail project, which is a portion of the WHDS project. Also,

environmental site remediation for ground water contamination within the rail lands was performed by the property Owner (CNR). Also, the environmental planning sub-process included supporting environmental studies and plans including the Remedial Action Plan (RAP) for Hamilton Harbour and the Fish and Wildlife Habitat Restoration Project. In addition, and as part of the WHDS, the Hamilton Naturalist' Club prepared the report "West Harbour Biological Survey." Based on evaluation of existing environmental conditions, a decision was made to protect natural areas by limiting development in significant areas and to prepare development guidelines that would address environmental issues (City of Hamilton, 1995).

- Physical-Functional Planning Sub-process: This included the wide range of land use planning and site assessment, heritage planning, transportation planning, infrastructure planning, urban design, and open space landscape design.⁵⁵⁹ Some of the physical-functional planning and design studies and outcomes included the West Harbourfront Precinct *Concept Plan* with a definition of special development districts, urban design including a three dimensional model for the project area and design guidelines, heritage planning study including recommendations and adaptive reuse of heritage buildings. Transportation planning studies included a feasibility study for relocating the CN marshalling yard, CN main line corridor and crossing study, in addition to regional transportation and local traffic studies that included the perimeter road.

- Economic Planning Sub-process: This included the following financial and cost analyses in addition to marketing:⁵⁶⁰

- Economic impact analysis included construction cost analysis for the entire project, employment analysis, visitor attendance and spending analysis, and tax assessment.
- Feasibility study for relocating the CN marshalling yard including a cost estimate.
- Component cost estimates, maintenance costs and capital budget.
- Marketing campaign to introduce the project to local and international developers.

The original Bayfront Park project was initiated and financed by MOE and the City. The City prepared a cost estimate for the initial project as well as for the development of the Park.

- Social Planning Sub-process: Even though, the social planning sub-process was not explicitly defined, the Precinct Plan included several social objectives and the provision of social amenities and buildings that would serve the public interest. In addition, the site redevelopment process targeted significant socio-economic objectives including creating jobs, increasing

⁵⁵⁹ The physical-functional planning component was relative large and could be subdivided into sub-components and pertinent planning sub-processes like heritage planning, transportation planning and infrastructure planning.

⁵⁶⁰ Usually this planning sub-component includes project financial feasibility in terms of return on investment. This was not included in the WHDS and considered to be done by the potential developers that would redevelop the area.

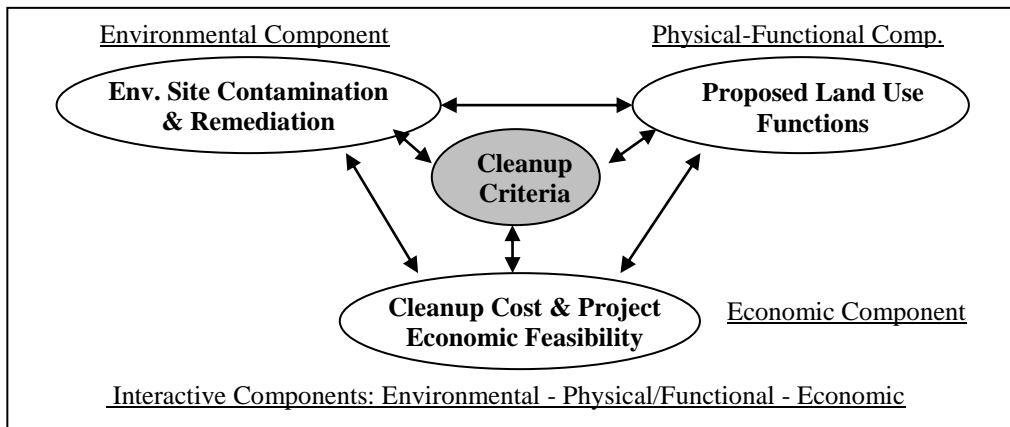
property values and tax base, and transforming the blighted area into a vibrant waterfront area. Social problems like crime, vandalism or other insecurity issues were not perceived within the project area.⁵⁶¹ There was no specific equity plan, but there was awareness about equity issues and concern about residential displacement and relocation as a result of the proposed plan. The planning process was in a way community based in terms of having community representatives in the *Steering Committee* that coordinated the project as well as having several public meetings involving local and City residents where they had expressed their needs and objectives.

- Political-Organizational Planning Sub-process: This included stakeholders collaboration planning and partnerships. Also, the political planning sub-process was exemplified in the *Study Team Organization* for the WHDS project, which included multi-stakeholders at the *Steering Committee*, *Technical Advisory Committee*, and other *Stakeholders Groups*. Stakeholders' collaboration was also represented in the *Visioning Game*, *Design Workshops* and *Public Consultation* meetings organized for the project. However, major private developers were not included in the beginning of the planning process, which makes the process lacking an important stakeholder. Having private developers and investors involved in the “*Study Team Organization*” would be essential for establishing public-private-community collaboration and partnership as well as having an opportunity for early marketing for the project. This would be an added value for project marketing, especially when the project redevelopment strategy was primarily based on private sector investment and attracting prospective developers.

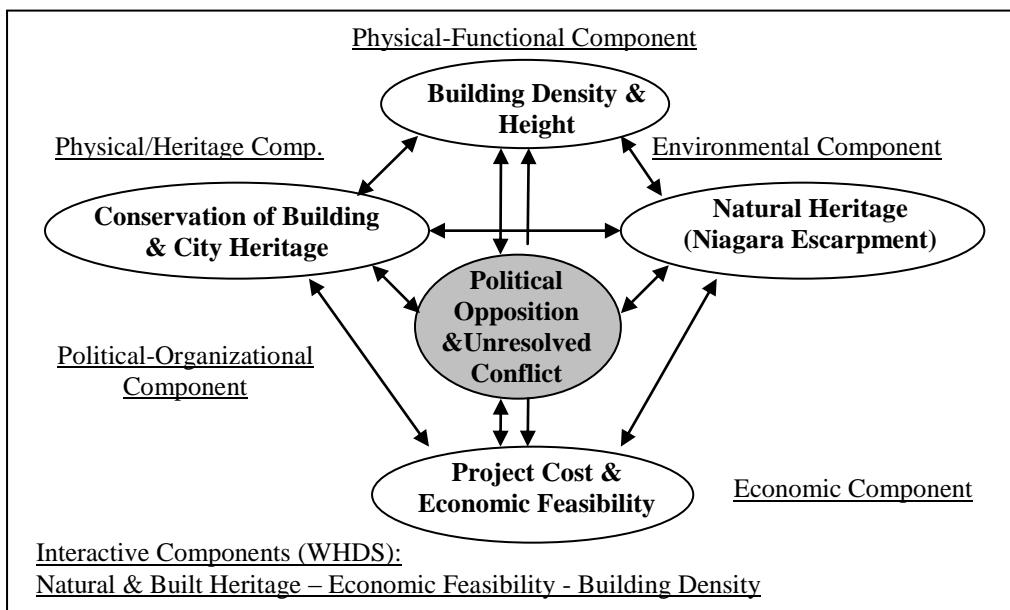
2. **Multiple-Component Interactive Planning Process:** Each component planning sub-process had an impact on the other planning sub-processes. For the Harbourfront Trail project, the site remediation plan was based on a Site Specific Risk Assessment approach (SSRA); clean-up criteria would vary according to the proposed land use function within a particular area and clean-up cost would be affected as a result.⁵⁶² In the case of the Bayfront Park, the site remediation plan was in accordance with Section 46 of the Environmental Act, which was based on land fill site clean-up approval process that stipulated a park or open space land use function. The following diagram outlines the interactive effect between site remediation, proposed land use functions, clean-up criteria, and eventual impact on clean-up cost and economic feasibility.

⁵⁶¹ Key Participants' Interviews, 2000.

⁵⁶² Environmental clean-up criteria for residential use are more stringent than those for industrial and commercial uses. Accordingly, clean-up cost for residential use is higher.

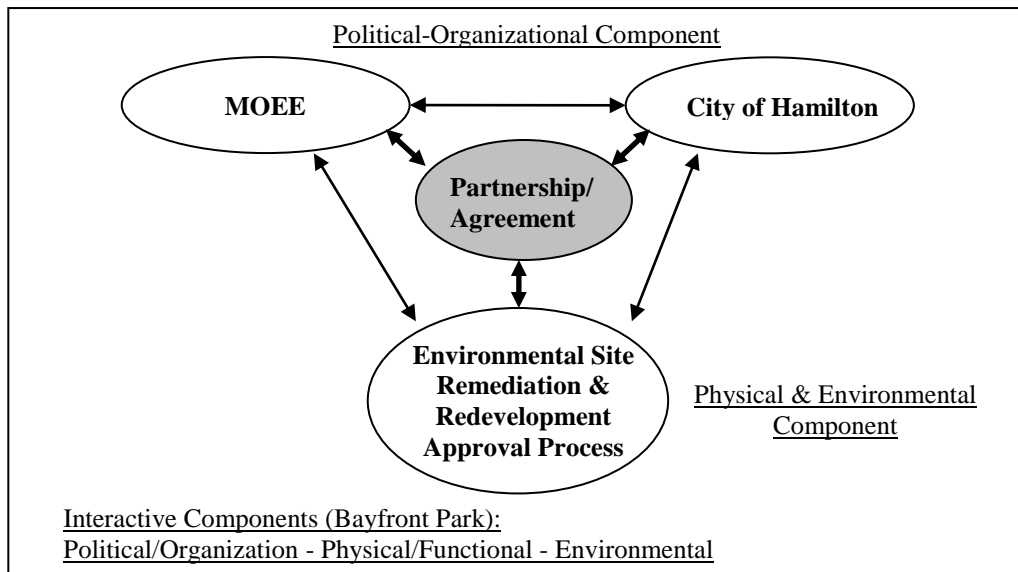


The new redevelopment would require an economically feasible building density, which would imply certain building heights. Due to concern about impact on the natural landscape heritage of the Niagara Escarpment as well as on built heritage the plan limited building height to 10 floors to avoid being higher than the Escarpment. Despite of setting of building height limit for new redevelopment, there was opposition from community residents and stakeholders' groups to the proposed physical built form and density.⁵⁶³ In addition, the proposed heritage conservation would imply higher cost, which could affect project economic feasibility. This interactive effect among factors had an impact on stakeholders' decision making toward a balanced tradeoff among those factors and as outlined in the following diagram.



⁵⁶³ Opposition was also because of major physical-functional transformation which resulted in displacement of existing houses and negatively impacted building and city heritage (Key Participants Interviews, 2000).

In the case of the Bayfront Park, the environmental approval process, including site remediation, was intertwined with the project redevelopment process. The City of Hamilton was responsible for the project and redevelopment approval. MOE secured major project financing provided that the City would perform the environmental clean-up in accordance with the EPA Section 46 for landfill site approval and redevelopment as a park. This was a form of Public-Public partnership between MOE and the City of Hamilton.



Given the interactive nature among components and their planning sub-processes outlined above, proper integration would be essential by focusing on the design of main linkages within and among components.

3. **Multiple Spatial Levels of Planning:** The planning and design process was represented at various spatial levels including the following:

- **Overall Project Site (Macro-Level):** This was represented in the *Concept Plan* for the WHP including the urban design built form for the project site. This planning level would outline the project area and its relation to the surrounding and the City of Hamilton in general.
- **Development Planning Districts (Intermediate Level):** The *Concept Plan* for the WHP was subdivided into fifteen *Development Planning Districts* based on existing cultural heritage landscapes, existing and proposed land uses, and future development zones. Even though the overall WHDS project was not implemented, it was recommended in the planning report that those redevelopment districts be adopted and detailed design guidelines and criteria be prepared and enacted under the appropriate site plan control legislation to regulate the use, character, density, architectural form and quality of development in each district (City of Hamilton, 1995).

- Individual Building Site (Micro-Level): This was represented in the proposed adaptive reuse of heritage buildings like the old CN station.

In addition, the overall project area (WHDS) was studied in relation to the surrounding residential communities as well as the city context. All the above planning and design Macro-Micro levels were interrelated to form the overall planning process.

4. Incremental Redevelopment Planning Process: The WHDS project did not include a phasing plan for implementation, which was one of its drawbacks. The subdivision into development planning districts could have been used as the basis for a prioritized incremental phasing plan. The implementation of the Bayfront Park and Harbourfront Trail could be envisioned as the initial phases of the overall project and the remaining parts would be pending adjustments on the plan to gain approval by main stakeholders.

5. Heritage Conservation Planning in the Context of Urban Transformation & Revitalization: The WHDS project included transformation of industrial sites and rail lands into a higher density residential-commercial-recreational mixed land use redevelopment. In addition, the project area was rich in terms of natural and built heritage that would require conservation. The planning challenge was to achieve a balance between level of urban transformation and heritage conservation that would be acceptable to the main stakeholders.

9.5 Current Status of West Harbourfront Development Study (WHDS) - Hamilton

The main development and actions taken so far regarding the WHDS area are as follows:⁵⁶⁴

- Only Bayfront Park and Harbourfront Trail were implemented parts of the WHDS Plan.
- The Planning and Economic Development Department at the City of Hamilton had prepared a new land use plan for the area titled “Setting Sail - Secondary Plan for Hamilton West Harbour” dated March 2005. The proposed plan required official plan amendment which was still pending approval. The main differences between the new plan of 2005 and the previous plan of 1995 (WHDS) included the following:
 - The new plan did not propose major transformation of the city fabric and maintained the original orthogonal street pattern. The new redevelopment will be like an infill.
 - The new plan proposed residential and mixed use development within the Barton-Tiffany special policy area, which is the industrial area adjacent to the CN yard.
 - Relatively lower density development is proposed within the Barton-Tiffany special policy area and higher density development near Pier 8.
 - The CN marshalling yard is kept as it was since no final agreement has been reached between the City and CN Rail.

⁵⁶⁴ This update is based on an interview performed with a senior planner at the City of Hamilton on June 15, 2009. The mentioned senior planner was one of the Key Participants interviewed during the field survey in 2000.

- The proposed Secondary Plan was appealed by the following parties:
 - CN Rail appealed the plan due to having residence close to the rail lines.
 - Neighbourhood Association appealed whole plan for reasons of increased traffic.
 - Two local industries (Rheem and B & M Recycling) appealed the plan. Rheem has closed its operations.
 - Tim Horton's appealed the plan, but this appeal was resolved.

The above appeals were still pending resolution except for Tim Horton's.



Exhibit 9.19: Photos of Bayfront Park and WHDS Project (June 15, 2009)

- The Public Works Department of the City of Hamilton was preparing West Harbourfront Recreational Plan for the area from Bayfront Park to Pier 8. The plan was nearing completion.
- The City of Hamilton was also considering another idea for Barton-Tiffany area to be the site for a new stadium (30,000 person capacity) for the Pan Am games in 2015. These games occur every four years. The stadium will also be used for Hamilton Tigers games. The decision on this site selection was still pending and the Official Plan was not final yet.
- The City was still interested in moving the CN marshalling yard from the existing Harbourfront location. However, CN Rail was not interested at that point.

- The City Council gave direction to consider establishing a development corporation that would be directly responsible for development in this area. Work on this issue was still in progress and final decision had not been made yet.

It is important to note that one of the recommended policy directions within this research was to establish a special redevelopment authority that would be directly responsible for brownfield redevelopment.

9.6 Lessons Learned - Reasons for Success of Bayfront Park & Failure of Implementing the WHDS Overall Project - Hamilton

1. **Bayfront Park was relatively small in size** and defined in terms future land use as a park which was based on the site remediation approval process in accordance with Section 46 of the EPA that specified clean-up for landfill site to be for open space/park use only. The redevelopment of Bayfront Park may be considered like a phase in the WHDS project.

2. **Public-Public Partnership** between the MOE and the City of Hamilton was key to the initiation and successful completion of the Bayfront Park site remediation project. The province provided the major portion of funding for the project.

3. **Environmental Site Contamination and Remediation for Bayfront Park was Addressed in the Beginning of the Process.**

The Bayfront Park project started as a site remediation project to be developed as a public park. Detailed development of Bayfront Park was included in the WHDS project. On the other hand, in the WHDS project environmental site remediation and related cost was not properly addressed in the beginning of the process. The expectation of the planning team was that the prospective private developers would address site remediation. This created an uncertain condition of perceived liabilities and related cost of site remediation which was not a favourable condition for marketing to private developers.

4. **Study Team Organization:** The formation of the “*Study Team Organization*” for the WHDS in the beginning of the process was a successful step for fostering public-private-community collaboration and partnership. This helped in collective decision making in the beginning and having stakeholders’ consensus on the main objectives for the project. However, this collective decision making and stakeholders’ consensus did not continue all the way through the end of the process of preparing the vision plan, especially the proposed physical urban design

scheme. Apparently, there was opposition to the physical urban design scheme by major stakeholders including the local residents.⁵⁶⁵

5. **Physical Urban Design Proposal Perceived as a Blue Print:** The Concept Plan for the WHDS project, even though intended as a general vision, it was perceived as a blue print physical urban design proposal. No options were provided to reflect the different possible redevelopment themes, which may also reflect the different directions/values among the stakeholders as well as providing different levels of urban conservation-transformation mixes. In the case of Bayfront Park, and even though it was relatively small in size, there were three development options/alternatives that were evaluated as part of the planning process.

6. **Heritage Conservation versus Urban Transformation:** Even though a main objective of the WHDS project was to preserve the city cultural heritage and five Cultural Landscape Heritage Units were defined, the Concept Plan was a major urban transformation of the City historic fabric as well as change in character of some residential neighbourhoods. A new strong diagonal axis was introduced in the city orthogonal grid pattern in order to create a visual and movement corridor that connects the city core with the Harbour front. The objective may be acceptable by itself, but it has to be acceptable to the major stakeholders. Ultimately, the image of the Concept Plan was like an urban renewal project, which faced strong opposition at least from the local community and the heritage preservation groups.

7. **Project Phasing of Implementation was not Clearly Defined:** The WHDS Concept Plan did not include a clear and prioritized phasing of implementation strategy, especially when dealing with a large area like the WHP. The subdivision of the Precinct into Cultural Landscape Units and planning districts could have been used as the basis for defining a phasing strategy for implementation. Prioritized phasing of implementation strategy would help in focusing on outlining detailed issues of a smaller priority area including its financial feasibility, which in turn would create a favourable condition for marketing to potential developers.

⁵⁶⁵ The opposition to the urban design scheme was mainly due to major transformation of the old city fabric including removal of existing houses that have heritage value (Key Participants' Interviews, 2000).

CHAPTER TEN: CROSS CASE STUDY COMPARATIVE ANALYSIS & CONCLUSIONS

The comparative analysis among findings of empirical case studies is based on the eight research units of analysis that are previously defined in the research methodology of Chapter Five (Section 5.2.1). The comparative analysis for each research unit and among the four empirical case studies includes an outline of the constituent parts of the planning framework including:

- **Problem Context:** An impact evaluation of the main problems and issues as perceived by key participants in the planning process.
- **Policy Directions:** An impact evaluation of main policy directions and guidelines as perceived by key participants in the planning process.
- **Planning Process:** Outlining common patterns that characterize the planning sub-processes as well as highlighting the main linkages among components of the process.

10.1 ENVIRONMENTAL-LEGAL COMPONENT: Site Remediation Planning

10.1.1 Comparative Analysis of Problems and Policy Directions and their Impacts

The problem of environmental contamination ranked the highest impact for all case studies, ranging from “● strong” to “●-■ strong-very strong” impact (Exhibit 10.1). The second highest total average impact level was for “*clarity and consistency of government approval process*” which ranked “● strong”. All other problems ranked “▲-● moderate-strong” for total average impact except for “*length of government approval process*” that ranked “▲ moderate” impact. This shows a consistent pattern and indicates relative importance of this problem component.

The policy directions with the highest overall average impact level were “*addressing environmental contamination in the beginning of the process*” and “*defining legal liability for contamination*” that ranked “▲-● moderate-strong”. The policy direction of “*conditional lift of future liability ...*” ranked “▲ moderate” on total average impact. In general, the results show consistency among case studies and the stated policies have potential for application.

Exhibit 10.1: Comparative Analysis of Impacts of Problems & Policy Directions among Four Case Studies ⁵⁶⁶					
1. Environmental-Legal Component: <i>Site Remediation and Preparation Planning</i>	Overall Average Impact for Each Case Study				
	■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0				
Note: The problems/Issues and Policy Directions are the same as those in the Original Participants Questionnaire (Exhibit 6b & 7b)	Case Study-1	Case Study-2	Case Study-3	Case Study-4	Total Ave.
Problems and Issues					
1.1 Environmental contamination of site and/or buildings	●-■	●	●	●-■	●-■
1.2 Other human & natural ecosystems health hazard	▲-●	●	▲	▲-●	▲-●
1.3 Legal liabilities of contamination and decontamination:					
● Current liabilities	▲	□-▲	●	▲-●	▲-●
● Future liabilities	▲-●	▲	●	●	▲-●

⁵⁶⁶ The impact values for this Exhibit are taken from the pertinent exhibits for impact evaluation of problems and policy directions for the four case studies including Exhibits 6.7, 7.9, 8.7, and 9.8.

• Real liabilities (certain like identified contamination)	●	□-▲	▲	●	▲-●
• Perceived liabilities (expected but not certain)	▲-●	▲	▲-●	●-■	▲-●
1.4 Current government approval process for site remediation:					
• Clarity and consistency of procedure	●	□	●	▲-●	▲-●
• Length of procedure (time delay)	●	□	▲	▲-●	▲
• Government commitment to approval for site remediation	▲-●	□-▲	▲-●	●	▲-●
1.5 Others (P6): Former Decommissioning Guidelines (1989)			■		■
Overall Average Impact of Problems	●	▲	▲-●	●	▲-●
Policy Directions					
1.1 To address environmental contamination and site remediation in the beginning of the process	▲-●	●	▲-●	●	▲-●
1.2 To define and confine legal liabilities for contamination	□-▲	●	▲	▲-●	▲-●
1.3 Conditional lift of future liability of probable contamination from new purchasers of already cleaned-up sites	▲-●	▲-●	□	▲-●	▲
1.4 Others (P1): MOE Sign off on SSRA etc.	■				■
Overall Average Impact of Policy Directions	▲-●	●	▲	▲-●	▲-●

10.1.2 Common Patterns that Characterize the Environmental Remediation Sub-process

The common patterns are briefly summarized as follows:

1. It was previously known that all case study sites had a form of environmental contamination, but it was not clear the types and levels of contamination.

2. A form of Site Specific Risk Assessment (SSRA) was adopted in almost all cases, including land fill sites. This was due to high cost of background and generic approaches for site remediation that specified relatively more stringent criteria for decontamination. The SSRA process was following the rational decision making process including the following stages:

- Level One Environmental Site Assessment ESA-1 General Analysis
- Level Two Environmental Site Assessment ESA-2 Intensive Analysis
- Environmental Site Remediation Plan Synthesis & Evaluation
- Implementation of Remediation Plan Implementation
- Verification of Results Evaluation (Post Implementation)
- Future Environmental Monitoring Monitoring

3. Site remediation of landfill sites in two different case studies, was in compliance with Section 46 of the Environmental Protection Act (EPA), which specifies a future land use as a public open space or park.⁵⁶⁷

4. In all implemented cases, future environmental monitoring was mandatory since the SSRA approach implied some contaminants remaining on-site to be covered or contained in a way to eliminate exposure of receptors to contaminants.

⁵⁶⁷ If a different land use would be proposed within a land fill site then more stringent clean-up criteria and site remediation approach would be applied. Also, this would be a more costly process.

5. The site remediation plan was part of the development agreement between the developer and the city. The record of site condition (RSC) was registered on title.

6. Since there were potential future legal liabilities due to remaining contaminants and as a result of the SSRA remediation approach, the developer had to indemnify the approval authority (City, Region, and Province/MOE) from future liabilities.⁵⁶⁸

10.1.3 Main Linkages between the Environmental Planning Sub-process & other Planning Sub-processes – Four Empirical Case Studies

Case study findings indicate that main linkages exist between factors within the same problem component (like Environmental-Environmental) as well as between factors within different components (like Environmental-Economic). The main linkages and common patterns among the four empirical case studies are briefly as follows (see Appendix A10.1 for detailed outline):

- *Site Contamination and Remediation versus Legal Liabilities*
- *Site Contamination versus Cost of Site Remediation*
- *Site Contamination & Remediation versus Future Land Use*
- *Site Contamination & Remediation versus Surrounding Environment*
- *Site Contamination versus Area Social Stigmatization*
- *Site Contamination & Remediation versus Stakeholders Interest*

Multiple interactive linkages are also found among several factors within different components like “Site Contamination – Future Land Use – Cost of Site Remediation.”

1. Site Contamination and Remediation versus Legal Liabilities (Environmental-Legal):

Current and future legal liabilities for site contamination are evident in all case studies. Legal liabilities were applicable to previous users/owners as well as current and future users/owners. Site remediation in all case studies was a form of Site Specific Risk Assessment (SSRA) approach, which implied leaving part of the contaminants within the site provided a mitigation plan was implemented to control/monitor the impact of remaining contaminants on receptors. Record of site condition after site remediation would be registered on property title. In the cases with private developers, the City and MOE mandated their indemnification from legal liabilities.

2. Site Contamination versus Cost of Site Remediation (Environmental-Economic):

In all case studies, impact of site contamination on cost of project development was evident. In most of the cases, the developer was responsible for paying decontamination costs.⁵⁶⁹ Restoring

⁵⁶⁸ In the case of Hamilton Bayfront Park and Harbourfront Trail, the City was responsible for development and had to indemnify the Province/MOE.

⁵⁶⁹ One exception was the PCD project, where the Developer TEDCO managed to obtain the cost of site remediation from the previous users/polluters of the site (Sunoco and Imperial Oil).

the site to original conditions was relatively costly. Adopting Site Specific Risk Assessment (SSRA) approach for site remediation plan was primarily to reduce the cost of decontamination.

3. Site Contamination & Remediation versus Future Land Use (Environmental-Physical):

In general, the site remediation plan was based on clean-up criteria which vary in terms of level of decontamination and according to the proposed land use.⁵⁷⁰ For land fill sites, as in the case of the flyash area within the Cooksville Quarry project in Mississauga and Hamilton Bayfront Park project, the site remediation plan was based on Section 46 of the EPA which specified future land use as public open space (park).

4. Site Contamination & Remediation versus Surrounding Environment:

In most of the case studies, there was a potential impact of site contamination on surrounding environmental conditions.⁵⁷¹ In some case studies, there was potential impact of surrounding sites contaminants on project sites.⁵⁷² These conditions necessitated future monitoring.

5. Site Contamination versus Area Social Stigmatization (Environmental-Social):

In general, contaminated sites with abandoned/derelict conditions were perceived as eyesores and had negative social connotation or stigma. In some cases, negative social stigma had an impact on surrounding residential communities as in the case of G&W in Toronto, and WHDS and Bayfront Park in Hamilton.

6. Site Contamination & Remediation versus Stakeholders Interest (Environmental-Political):

In all case studies, the main stakeholders were in favor of site clean-up. However, there were different views and concerns regarding the site remediation plan especially the site specific risk assessment approach (SSRA) where part of the contamination was contained within the site. For example, stakeholders were concerned certain about the remediation plan for the flyash area of the Cooksville Quarry project in Mississauga which was transformed into a neighbourhood park. The development approval included three indemnification agreements involving the four parties, Ontario Hydro, project Developer, City of Mississauga and MOE.⁵⁷³ Also, the site remediation plan included future monitoring of flyash leachate.

⁵⁷⁰ Clean-up criteria for residential uses are more stringent and hence imply higher cost in comparison to clean-up criteria for open space, commercial or industrial functions.

⁵⁷¹ This included potential impact of flyash leachate on Mary Fix Creek (Cooksville project), potential impact of site contamination within the CN rail area on ground water and Hamilton Harbour, potential impact of site contamination within Bayfront Park on the Hamilton Harbour.

⁵⁷² In the G&W project, coal tar contamination of ground water was migratory in nature and there was potential impact from surrounding properties on cleaned sites within the project. In the case of Cooksville project, there was potential impact of waste land fill site that was abutting the project.

⁵⁷³ See Chapter Eight, Section 8.4.5.3 for an outline of the three indemnification agreements.

10.2 PHYSICAL-FUNCTIONAL COMPONENT: Land Use Planning, Urban Design, Architecture, Site Planning, Heritage Planning & Others

10.2.1 Comparative Analysis of Problems and Policy Directions and their Impacts

In general, the impact level of the physical-functional problems as perceived by key participants was “▲-● moderate-strong” on overall average (Exhibit 10.2). The problems of “*site accessibility and visibility from main transportation routes*” and “*surrounding land uses*” had relatively the highest impact level “● strong” and this was relatively consistent among case studies. On the other hand, the impact of some problems varied among case studies like “*unused or underutilized buildings and sites*,” which averaged “○ very weak” in Case Study-3 (Cooksville Quarry), and ranked “● strong” in Case Study-1 (G&W), and Case Study-2 (PCD).

The average impact level of policy directions was in the range of “▲ moderate” and “▲-● moderate-strong”, which indicated their relative importance. The highest average impact level ranked “▲-● moderate-strong” for the policy directions/guidelines of “*reclaiming lost urban space through an adaptive reuse approach*” and “*achieving responsive environments with a sense of place and community.*” This indicates that these policy directions have potential for application.

Exhibit 10.2: Comparative Analysis of Impacts of Problems & Policy Directions among Four Case Studies ⁵⁷⁴					
2. Physical-Functional Component: <i>Land Use Planning, Urban Design, Architecture, Site Planning, Heritage Planning, etc.</i>	Overall Average Impact for Each Case Study				
	■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0				
Note: The problems/Issues and Policy Directions are the same as those in the Original Participants Questionnaire (Exhibit 6b & 7b)	Case Study-1	Case Study-2	Case Study-3	Case Study-4	Total Ave.
Problems and Issues					
2.1 Unused or underutilized buildings/ sites:					
● Vacant or abandoned buildings/ sites	●-■	●	○	▲	▲
● Underutilized buildings/ sites	●	●	○	▲	▲
2.2 Structural/physical dilapidation of buildings	□-▲	■	○	▲-●	▲
2.3 Deterioration of physical infrastructure networks	□-▲	▲	○	□-▲	□-▲
2.4 Declining environmental image of the area	▲	▲	▲	▲	▲
2.5 Site accessibility and visibility:					
● Accessibility to/from main transportation routes	▲-●	●-■	▲-●	▲	▲-●
● Site visibility from main transportation routes	▲-●	●-■	●	▲	●
● Availability of public transportation	▲	▲-●	●-■	▲	▲-●
2.6 Others (P2: Surrounding Uses and Use Designation)				●	●
Overall Average Impact of Problems	▲-●	●	□-▲	▲	▲-●
Policy Directions					
2.1 To prepare an inventory of existing blighted industrial sites in order to address interrelated planning problems collectively	▲-●	□-▲	▲-●	▲	▲
2.2 To reclaim lost urban space through an adaptive reuse/ redevelopment of existing and potential resources	●	▲	▲-●	▲-●	▲-●
2.3 To maintain a balance between heritage conservation & urban innovation in the context of urban transformation	●	□-▲	▲	▲	▲

⁵⁷⁴ The impact values for this Exhibit are taken from the pertinent exhibits for impact evaluation of problems and policy directions for the four case studies including Exhibits 6.8, 7.10, 8.8, and 9.9.

2.4 To aim at achieving responsive environments with a sense of place and community	▲-●	▲	▲-●	▲-●	▲-●
2.5 Others (P2: Underutilized Infrastructure)				▲	▲
Overall Average Impact of Policy Directions	●	□-▲	▲-●	▲	▲

10.2.2 Common Patterns that Characterize the Physical Planning Sub-process

The main characteristic patterns can be grouped into the following areas:

- *Levels of the physical planning sub-process*
- *Physical planning levels and the development approval process*
- *Incremental physical planning sub-process*

- **Levels of the Physical-Functional Planning Sub-process**

The physical-functional planning sub-process was represented at the following levels:

- *Overall Site - Land Use Planning, Sub-division Planning & Urban Design (Macro-Level)*
- *Site Sub-division, Site Planning and Building Architectural Design (Micro-Level)*

Overall Site Land Use Planning, Subdivision Planning and Urban Design: This was exemplified in the site subdivision plan of the Cooksville Quarry project in Mississauga, or the master development concept plan for the G&W project, master plan for PCD project, and the concept plan for the WHDS project. Urban Design guidelines were provided as complementary components to the master development or sub-division plan. For the implemented projects, the master development concept plan and the subdivision plan as well as the urban design guidelines formed the planning framework for micro-level site planning and building design.

Site Plan and Architectural Building Design was clearly exemplified in the implemented projects of the G&W and Cooksville Quarry projects. Specific site sub-divisions within the overall master development plan went through site plan development approval process on an incremental basis. Site plan approval process, including building architectural design, may require changes in the master development plan and in this case, the development agreement between the City and the Developer had to be amended accordingly.

10.2.3 Main Linkages between the Physical/Functional Planning Sub-process & Other Sub-processes – Four Empirical Case Studies

The main linkages between the Physical-Functional Planning sub-process and other sub-processes can be briefly summarized as follows (see Appendix A10.2 for details):

- *Heritage Conservation versus Urban Renewal & Redevelopment Cost*
- *Building Form & Density versus Environmental Adaptation & Urban Redevelopment*
- *Land Use Diversity versus Daily Site Activity & Public Accessibility*
- *Project Site Functions versus Surrounding Context*
- *Land Use Functions versus Transportation Access*
- *Land Use Mix versus Approval Process*

- *Distribution & size of Land Use Functions versus Market Analysis & Feasibility*

1. Heritage Conservation versus Urban Renewal & Redevelopment Cost)

Heritage was a strong factor in the redevelopment process for projects that included historical/heritage buildings and/or sites as in the cases of the G&W in Toronto and WHDS in Hamilton.⁵⁷⁵ The adaptive reuse of heritage buildings was a main conservation strategy at the G&W project, which was relatively costly process and affected project feasibility. New building density and building height had an effect on Heritage issues as perceived by main stakeholders.⁵⁷⁶ Consequently, there was a restriction on building density and building height, which in turn had an effect on project feasibility.

2. Building Form & Density versus Environmental Adaptation & Urban Redevelopment

Building form and density had impacts on environmental and social issues. In the case of G&W, special studies were performed on building form and density to achieve better environmental results in terms of wind and solar effects within the project. In the case of the Cooksville Quarry, the building height of high density residential area along the southern edge had visual impact on residential communities across the street, which had to be adjusted. In the Hamilton case, a ten story building height was set as a limit to be within the height of the Niagara Escarpment.

3. Land Use Diversity versus Daily Activity & Public Accessibility (Physical-Functional)

The mixed land use development provided daily activity within the project. With residential functions included, the project was active throughout the whole day cycle. The residential community at the Cooksville Quarry site as well as the G&W project was good examples.

4. Project Site Functions versus Surrounding Context (Physical-Functional)

Integration of the project land use functions with the surrounding context was one of the main objectives in all case studies. This integration was in different forms, including compatibility of land use functions at edges, connecting movement systems both vehicular and pedestrian, as well as connective green corridors. In the Hamilton case, the plan included relocation of the CN Marshalling yard in order to allow for reintegrating the residential communities with the Hamilton Harbour. In case of incompatible functions like the Cooksville Quarry site, a buffer zone was provided to separate the existing CPR rail from the residential area on the north side.

⁵⁷⁵ In the Hamilton case, the site also included natural heritage like Niagara Escarpment and the Hamilton Bay.

⁵⁷⁶ Local residents, heritage groups in addition to the City were in favor of Heritage conservation.

5. **Land Use Functions versus Transportation Access (Physical-Functional-Transportation)**

In general, transportation access to and from the site was important in all case studies. Even though case study projects were within the inner city and part of the transportation network, however, accessibility to public transit and to expressway was important for certain projects.

6. **Land Use Mix versus Approval Process (Physical/Functional-Political)**

In all case studies, the proposed mixed land use functions implied an application for Official Plan amendment and rezoning as part of the development approval process.

7. **Distribution and size of Land Use Functions versus Market Analysis & Economic Feasibility (Physical/Functional-Economic)**

Selection of type, size and location of land use functions, especially for commercial and industrial functions were all based on a market analysis studies.

10.3 ECONOMIC COMPONENT: Financial Planning and Marketing

10.3.1 Comparative Analysis of Problems and Policy Directions and their Impacts

In general, the overall average impact level of the “*Economic*” component problems is “▲-● moderate-strong”, which indicates its relative importance (Exhibit 10.3). This was also the average impact level for three problem issues including “*site remediation cost effect on project financial feasibility*”, “*high cost of building conservation ...*”, and “*scarcity of public and private funding*”. While the problem of “*project perception as economically not feasible*” ranked the lowest among case studies “□-▲ weak-moderate” this indicated that the projects were generally perceived as feasible. The overall average impact of this problem component was also in the range of “▲-● moderate-strong” impact for three case studies, except case study-2 (PCD), which ranked “□-▲ weak-moderate” impact. This indicated that the problems of the economic component were not critical for the (PCD) project because initial cost of environmental clean-up was paid by the previous users and TEDCO arranged potential private investors for the project.

The overall average impact level of policy directions was also “▲-● moderate-strong”. Two policy directions ranked “● strong” on total average among the four case studies, which included “*arrangement for early marketing in the process ...*” and “*developing financial & other redevelopment incentives ...*”. The other two policy directions ranked “▲-● moderate-strong”, which included “*establishing public-private partnerships*” and “*availability of environmental liability insurance to cap site remediation cost ...*” For Case study-3 (Cooksville Quarry), the perceived overall average impact of the selected policy directions ranked the highest “●-■ strong-very strong”, while the perceived average impact of policy directions for Case Study-1

(G&W project) ranked the lowest “▲ moderate”. In general, this indicated that policy directions were relatively important and had the potential for application.

Exhibit 10.3: Comparative Analysis of Impacts of Problems & Policy Directions among Four Case Studies⁵⁷⁷						
3. Economic Component: <i>Financial and Marketing Planning</i>		Overall Average Impact for Each Case Study				
Note: The problems/Issues and Policy Directions are the same as those in the Original Participants Questionnaire (Exhibit 6b & 7b)		■ V. Strong / 5		● Strong / 4 ▲ Moderate / 3		
		□ Weak / 2		○ V. Weak / 1 - NA / 0		
		Case Study-1	Case Study-2	Case Study-3	Case Study-4	Total Ave.
Problems and Issues						
3.1	Project perception is economically not feasible	▲	□	○	▲-●	□-▲
3.2	Site remediation cost effect on project financial feasibility	▲	□-▲	■	●	▲-●
3.3	High cost of building conservation, renovation & restoration	●-■	□	-	▲-●	▲-●
3.4	Scarcity of public & private funding	●	□	■	▲	▲-●
3.5	Declining property values and tax base	▲	▲	-	▲-●	▲
3.6	Declining economic redevelopment market of the area	●	□-▲	▲	□-▲	▲
3.7	Others (P1: Market impacts on local retail market)		■			■
Overall Average Impact of Problems		▲-●	□-▲	▲-●	▲-●	▲-●
Policy Directions						
3.1	To establish public-private partnership for project financing	▲	▲	●	●	▲-●
3.2	To arrange for project marketing in the early stages of the process in order to secure potential developers, investors,	▲-●	▲-●	■	●	●
3.3	To develop financial and other redevelopment incentives in order to create an attractive redevelopment package	□-▲	●	■	●	●
3.4	Availability of environmental liability insurance to cap site remediation costs and to control future liabilities of	□	▲-●	■	▲-●	▲-●
Overall Average Impact of Policy Directions		▲	▲-●	●-■	●	▲-●

10.3.2 Common Patterns that Characterize the Economic Planning Sub-process

The main common patterns can be briefly summarized in the following areas:

- *Cost of Site Remediation and Perception of Legal Liabilities*
- *Project Financial Feasibility*
- *Market Analysis Studies*
- *Project Marketing*

● **Cost of Site Remediation and Perception of Legal Liabilities:** Cost of site remediation was a factor that affected project financial feasibility as well as the overall planning process. This factor resulted in selecting the site specific risk assessment (SSRA) approach for site remediation as a cost effective approach.⁵⁷⁸ Also, this chain of interactive issues had perceived impact in terms of current and future legal liability for remaining environmental contamination. In general, brownfield site remediation cost and pertinent legal liabilities were one factor influencing developers’ decision to prefer greenfield site rather than brownfield redevelopment.

⁵⁷⁷ The impact values for this Exhibit are taken from the pertinent exhibits for impact evaluation of problems and policy directions for the four case studies including Exhibits 6.9, 7.11, 8.9, and 9.10.

⁵⁷⁸ The SSRA implies leaving part of the contamination within the site provided mitigation measures are provided to protect humans and the environment.

In the case studies, the project developers considered the overall process as economically feasible when combining site remediation and site redevelopment. The cost of site remediation may be paid incrementally when the process is based on site by site subdivision redevelopment as in the G&W project. In the Cooksville Quarry project, the overall site remediation cost was paid by the project developer prior to actual redevelopment to allow for a better marketing. In the Bayfront Park in Hamilton, site remediation cost was primarily paid by MOE grant. In the PCD project, the site remediation cost for two sites was paid by the previous user/polluters.

- **Project Financial Feasibility:** In general, the projects were conceived by their respective developers as financially feasible. The case of the WHDS in Hamilton did not include an overall or partial redevelopment financial (investment) feasibility study, which might be one main reason why the project was not that successful or completely implemented.⁵⁷⁹

Projects also provided public benefits in terms of employment generation, increased tax base, heritage conservation, and other public functions like public parks and public art. The provision of public functions/benefits was included in a way in the overall financial feasibility of the projects, mainly in the redevelopment agreement between the City and the developer as part of giving approval and permit. The City, acting on behalf of the public interest, would try to maximize public benefits and the developer would try to maximize financial profit. In the case of the G&W, the development agreement between the City and the developer included heritage easement and an increase in development density/area as a bonus for heritage conservation.⁵⁸⁰ Also, added building area and building height was used as a bonus given to the developer in exchange of providing added public benefits/uses within the project.⁵⁸¹ Anyway, trying to balance provision of public benefits versus developer's financial feasibility is a form and part of applying public feasibility framework which should be included in the economic planning sub-process for brownfield redevelopment.

- **Market Analysis Studies for Proposed Land Use Functions:** Market analysis studies were usually prepared by private consultants on behalf of the developer to secure that the proposed functions and their sizes are viable. Such studies were primarily prepared for commercial and industrial functions. In the case of the Cooksville Quarry project, market studies

⁵⁷⁹ The WHDS included cost estimates for the major functional components in the project. Also, it included a feasibility study for relocating the CN Marshalling Yard, which provided cost estimates and potential site for relocation in Aldershot (City of Hamilton, WHDS, 1995).

⁵⁸⁰ That was done according to Section 37 of Ontario Heritage Act (City of Toronto, February 1994).

⁵⁸¹ That was done according to Section 37 of Ontario Planning Act (Ibid.).

for the neighbourhood commercial were prepared by both the private developer and by the City of Mississauga. Location studies for proposed functions were also prepared to secure viability of those functions as in the case of the sport complex and multicultural gardens in the WHDS in Hamilton. In the Cooksville Quarry project, the proposed high-rise high density residential was found not marketable and an agreement between the City and the Developer was made to change the development form to high-density low rise (4 stories) that was marketable.

- **Project Marketing** was performed by various stakeholders and for various targets like public authorities trying to attract potential private developers to be involved in project redevelopment (as in the WHDS project) and developers targeting builders/investors to be responsible for redeveloping parts of the project, as well as targeting potential purchasers/tenants for specific functions. In the case of the PCD project in Toronto, the developer/TEDCO managed to make initial agreements with main investors in the project like Costco and Knob Hill Farms. In the Cooksville Quarry project, the developer and builders intentionally planned all site remediation to be implemented before inviting potential purchasers and users to be on site.⁵⁸²

10.3.3 Main Linkages between the Economic Planning Sub-process & Other Planning Sub-processes - Four Empirical Case Studies

The main common linkages between the Economic Planning sub-process and other sub-processes can be briefly summarized as follows (see Appendix A10.3 for detailed outline):

- *Cost of Site Remediation versus Level of Site Contamination and Decontamination*
- *Cost of Site Remediation versus Legal Liabilities*
- *Cost of Site Remediation versus Future Land Use*
- *Project Economic Feasibility versus Heritage Conservation & Building Density*
- *Project Marketability versus Perception of Site Contamination & Remediation*
- *Project Marketability versus Stakeholders Acceptability of Functional-Physical Theme*

1. Cost of Site Remediation versus Level of Site Contamination & Required Clean-up:

Cost of site remediation was relatively high and related to the level of contamination and acceptable clean-up plan. Site specific risk assessment (SSRA) and mitigation approach was a cost-effective approach to achieve a balance between a level of decontamination that was acceptable to the approval authority as well as financially feasible to the project developer.

2. Cost of Site Remediation versus Legal Liabilities: Environmental legislation mandates that contaminated sites that pose adverse impact on human or ecosystem health be cleaned-up in

⁵⁸² The developer and builders thought that in this way they may clear or minimize the negative image of a previously contaminated site and part of the contamination is still capped within.

order to perform any development or redevelopment.⁵⁸³ Legal liabilities were manifested in real and perceptual terms and in both cases implied cost of decontamination, as well as affecting property prices.⁵⁸⁴ The adopted SSRA approach for site remediation implied some of the contaminants to remain on site and exposure to receptors (humans and natural environment) should be controlled and monitored over time. Record of site condition after environmental remediation was registered on property title. This may affect future liability for new owners/users, as well as affecting property prices for subdivisions and the overall project.

3. **Cost of Site Remediation versus Future Land Use:** The proposed functions can affect cost of site remediation in terms of clean-up criteria, which vary between residential functions versus commercial and industrial functions. Clean-up criteria for residential functions are more stringent and hence more costly remediation.

4. **Project Economic Feasibility versus Heritage Conservation & Building Density:** Heritage conservation was costly and hence affected financial feasibility for the developer, as in the G&W project. The issue was who would pay for heritage conservation? A trade-off agreement was made between the City and the Developer whereby added building area/density was given to the developer in exchange for performing the required heritage conservation and in accordance with section 37 of Ontario Heritage Act.⁵⁸⁵

5. **Project Marketability versus Perception of Site Contamination & Remediation:** In general, there was a negative perception for a contaminated site and related liabilities even after site remediation. Record of site condition was registered on property title. These factors had a negative effect on project marketing.⁵⁸⁶

6. **Project Marketability versus Stakeholders Acceptability of Functional-Physical Theme:** The proposed functional-physical theme was an important issue for major stakeholders. In general, the functional theme for the case studies was a form of mixed use including residential, commercial and office functions except for the PCD project which primarily included commercial and industrial functions. In the latter case, both the functional theme as warehouse type retail functions, as well as the physical “Big Box” development which was not accepted by

⁵⁸³ For an outline of pertinent environmental legislation in Ontario, see Chapter 2, Section 2.2.3.

⁵⁸⁴ In three of the subdivided sites of the PCD project, the cost of site remediation was paid by the previous user/polluter of the property (Imperial Oil). The estimated cost was agreed on between TEDCO and Imperial Oil.

⁵⁸⁵ Added area was also given to the developer as a bonus in exchange of providing public benefit functions and in accordance with Section 37 of Ontario Planning Act, 1990.

⁵⁸⁶ In the Cooksville Quarry project, the developer and builders were keen about completing site remediation for the entire project site before having potential buyers coming on site to reduce perception of a contaminated site.

the City as well as local residents and local small business groups that would be negatively impacted by the new development.

10.4 **SOCIAL COMPONENT: Social Equity Planning & Safe Community Planning**

10.4.1 **Comparative Analysis of Problems and Policy Directions and their Impacts**

In general, and as perceived by key participants in the process, the overall impact level of the “*Social*” problems was “□-▲ weak-moderate” on average, which indicated that the problems of this component were relatively less affective (Exhibit 10.4). The problem of “*social stigmatization of the area*” had relatively the highest impact level averaging to “▲ moderate” impact, which was consistent among case studies except for the Cooksville Quarry Site where this problem ranked “□ weak” Conversely, the overall impact of the problem “*social inequities due to negative socioeconomic impacts*” ranked “□-▲ weak-moderate” among case studies. The remaining social problems ranked “□ weak” impact among case studies. In general, the results indicate that the stated social problems did not impinge on the project.

Exhibit 10.4: Comparative Analysis of Impacts of Problems & Policy Directions among Four Case Studies ⁵⁸⁷					
4. Social Component: <i>Social Equity Planning & Safe Equity Planning</i>	Overall Average Impact for Each Case Study				
	Case Study-1	Case Study-2	Case Study-3	Case Study-4	Total Ave.
Note: The problems/Issues and Policy Directions are the same as those in the Original Participants Questionnaire (Exhibit 6b & 7b)	■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0				
Problems and Issues					
4.1 Social inequities due to negative socioeconomic impacts	□-▲	□-▲	▲	□-▲	□-▲
4.2 Low educational levels & high unemployment rate among residents enhances problems of inaccessibility to jobs.	○-□	□	○	□-▲	□
4.3 Social problems associated with dilapidated and/or abandoned buildings and sites (e.g. vandalism & crime)	□-▲	□	○	□-▲	□
4.4 Social stigmatization of the area	▲	▲	□	▲-●	▲
4.5 Others					
Overall Average Impact of Problems	□-▲	□-▲	□	□-▲	□-▲
Policy Directions					
4.1 To develop mechanisms that will secure accessibility of local residents to newly provided opportunities (jobs)	□	▲	■	□-▲	▲
4.2 To foster social equity and justice through community participation in the decision making process	□-▲	▲-●	●	▲	▲-●
4.3 To aim at achieving socially safe environment (defensible space) through community participation	▲	▲-●	▲	□-▲	▲
4.4 Others					
Overall Average Impact of Policy Directions	□-▲	▲-●	▲-●	□-▲	▲

The average impact level for the policy direction “*fostering social equity & justice through community participation ...*” ranked “▲-● moderate-strong” among case studies. While

⁵⁸⁷ The impact values for this Exhibit are taken from the pertinent exhibits for impact evaluation of problems and policy directions for the four case studies including Exhibits 6.10, 7.12, 8.10, and 9.11.

the average impact level for the policies of “*securing accessibility to provided opportunities ...*” and “*achieving socially safe environments ...*” ranked “▲ moderate” impact. The overall average impact level of policy directions among case studies was “▲ moderate”. In general, the impact level of the selected policy directions indicated their potential application.

10.4.2 Common Patterns that Characterize the Social Planning Sub-process

The main elements that characterize the social planning sub-process were as follows:

- *No Specific Definition of the Social Planning Sub-process*
- *Social Equity and Safety Planning was not Explicitly Addressed*
- *The Process Included Social and Socio-economic Objectives/Benefits*

In general, a specific **social planning sub-process** was not explicitly defined and manifested in the case studies. Also, social equity planning, that addresses distribution and accessibility of local residents to newly generated opportunities (like jobs), was not specifically included in the planning process. However, in the WHDS case study the City of Hamilton mentioned they were aware of social equity issues in the project.⁵⁸⁸ Also, in the PCD project in Toronto, the planning report recommended that “*City Economic Division and local community groups develop an awareness and employment access programs to ensure local community access to new jobs*” (TEDCO, 1996). Regarding social safety planning, the process was not explicitly addressed, however and before redevelopment, vacant brownfield sites were perceived as “No Man’s Land” that were associated with safety issues and stigma.⁵⁸⁹

Even though the social planning sub-process was not explicitly defined, the redevelopment process included **social and socio-economic objectives** like provision of affordable housing, public parks and recreational facilities, community services, heritage conservation, and other public interest functions.⁵⁹⁰ Also, implemented projects, resulted in numerous socio-economic objectives including new job generation and increasing property values and tax base. In addition, all case studies included a form of community participation in the planning process where local residents expressed their opinion and needs. Residents’ participation was through public meetings, open houses, and workshops.⁵⁹¹

⁵⁸⁸ Interview with City Urban Planner, 2000.

⁵⁸⁹ In most of the cases, the problem of “Social Stigmatization of the Area” had an impact level of “moderate” to “moderate-strong” as perceived by Key Participants in the process (Key Participants Interviews, 2000).

⁵⁹⁰ The G&W project and Cooksville Quarry project included provision of 25% affordable housing, in addition to public functions/benefits that were included in the development agreement between the City and the developer.

⁵⁹¹ In one case (WHDS in Hamilton) there were residents’ representatives on a steering committee that monitored the planning process. However, community perception was as if they were only invited to participate and convey opinion but not involved in the final planning decision making process (Key Participants’ Interviews, 2000).

In conclusion, and even though social and socio-economic objectives were addressed in the redevelopment process as individual items or requirements, this research asserts the need to address social, socio-economic and socio-political issues as an integrated social planning sub-process and as part of the overall multiple component planning process.

10.4.3 The Main Linkages between the Social Planning Sub-process & Other Planning Sub-processes – Four Empirical Case Studies

The main common linkages between the social planning sub-process and other planning sub-processes were as follows (see Appendix A10.4 for detailed outline):

- *City, Community and Developer's Objectives versus Perception of a Contaminated Site*
- *City & Heritage Community Objectives versus Perception of Heritage Conservation*
- *Open Space/Environmental Context versus Social Context*
- *Social Context within the Project Site versus Surrounding Communities*

1. City, Community and Developer's Objectives versus Perception of a Contaminated Site

There were positive and negative linkages in this regard. In general, there was consensus among all stakeholders that contaminated sites needed clean-up and revitalization. However, cost of clean-up of all contaminants was costly and not feasible to the developer. In order to overcome this obstacle, a Site Specific Risk Assessment (SSRA) approach for site remediation was adopted for clean-up which allowed leaving a level of contamination on-site, provided that risk mitigation and monitoring measures were taken. The perception of future environmental risks from remaining contamination was a conflicting concern for many stakeholders, mainly the public.⁵⁹²

2. City, Heritage Community & Developer's Objectives versus Heritage Conservation

Heritage conservation was an important factor in the case study projects that included this factor. In the case of the G&W project in Toronto, there was a strong drive from the heritage community for high level of heritage conservation which would imply a relatively higher cost of redevelopment. The redevelopment plan included a master heritage plan and both the City and the private developer contributed to the preparation of the master plan. There was stakeholders' consensus on heritage conservation and the differences were on the level of conservation and the impact of added development density and height on heritage buildings. The added building density as a bonus was needed to balance cost of heritage conservation.

⁵⁹² A good example of public/community concern is the case of capping the flyash landfill at Cooksville Quarry project in Mississauga that was proposed as the community park.

3. Proposed Open Space/Environmental System versus Social Context

Provision of public functions and public open space contribute to the social context of a given area and its surrounding. The proposed open space system included public parks and parkettes, open space for movement systems, in addition to other open space environmental systems. Open space systems that emphasize pedestrian and cycling movement are more conducive to meaningful social space with a sense of people's place than car oriented open space systems.⁵⁹³

4. Social Context within the Project Site versus Surrounding Communities

All case study projects included a form of mixed use complex surrounded by existing residential communities and/or commercial/industrial land use functions. The social planning objective would be to provide a level of integration between the project social context with the surrounding social context. In the case of the G&W, the newly proposed residential functions would be a link to the existing residential neighbourhood of Saint Lawrence on the west side and a potential link with future development within the Ataratiri site on the east side. In the Cooksville Quarry project in Mississauga, a major vehicular/pedestrian street was planned as a connector between the new residential community and the existing community on the east side, in addition to main boundary streets acting as interfaces with the other surrounding communities. In the WHDS project in Hamilton, a major planning objective was to integrate the new residential community with the existing surrounding residential neighbourhoods.

10.5 POLITICAL COMPONENT: Political-Organizational Planning Sub-process, Stakeholders' Collaboration and Partnerships – Four Case Studies

10.5.1 Comparative Analysis of Problems and Policy Directions and their Impacts

As perceived by key participants in the process, the average overall impact level of the political problems ranked “▲-● moderate-strong” impact, which was consistent with individual case studies except for Case Study-3 (Cooksville) that ranked “▲-● weak-moderate” (Exhibit 10.5). This was an indication that the selected problems for this component were relatively effective.

⁵⁹³ In the G&W project, the open space system aimed at enhancing the heritage character and buildings as well as providing connective links to the surrounding communities. The open space was predominantly pedestrian and comprised 50% of the ground floor including lanes, courtyards and parkettes. In the WHDS in Hamilton, the open space system emphasized public parks and waterfront connective pedestrian trail, in addition to a visual and physical connective pedestrian movement axis between inner city functions and Hamilton Harbour. The proposed diagonal open space system was partly on the expense of removing existing buildings, houses and other city fabric. In the Cooksville Quarry project, the open space system focused on the Neighbourhood Park and recreational sports grounds as the main open space and heart of the residential community, in addition to pedestrian/vehicular movement space system that provided connections within the community as well as with surrounding areas. In the PCD project in Toronto, the proposed functional theme was fostering car movement rather than pedestrian and cyclist movement which raised stakeholders' concerns including the City and local residents.

The highest ranking problems on average were “*conflicting goals, interests & values of primary stakeholders*” and “*lack of stakeholders’ consensus on major objectives & issues*” that rated “▲-● moderate-strong”. These problems ranked higher “●-■ strong-very strong” impact in Case Study-2 (PCD), which could be considered as the main factors that led to the failure of this project. In general, the impact of these problems was in a way consistent among other case studies except Case Study-3 (Cookeville) where they ranked “□ weak” and “□-▲ weak-moderate” respectively.⁵⁹⁴ The impact of other political problems ranked “▲ moderate” on average. In Case Study-4 (WHDS) in Hamilton, “*political support*” was an added factor that ranked “● strong” impact on the project.

Exhibit 10.5: Comparative Analysis of Impacts of Problems & Policy Directions among Four Case Studies⁵⁹⁵					
5. Political Component: <i>Stakeholders’ Collaborative and Organizational Planning.</i> Note: The problems/Issues and Policy Directions are the same as those in the Original Participants Questionnaire (Exhibit 6b & 7b)	Overall Average Impact for Each Case Study ■ V. Strong/ 5 ● Strong/ 4 ▲ Moderate/ 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0				
	Case Study-1	Case Study-2	Case Study-3	Case Study-4	Total Ave.
Problems and Issues					
5.1 Conflicting goals, interests & values of primary stakeholders	▲-●	●-■	□	▲-●	▲-●
5.2 Lack of stakeholders’ commitment to achieve objectives	▲-●	▲-●	□	▲	▲
5.3 Lack of stakeholders’ consensus on major objectives & issues	▲-●	●-■	□-▲	▲	▲-●
5.4 Lack of stakeholders’ organizational/collaborative commitment	▲-●	●	□	□-▲	▲
5.5 Lack of special redevelop. authority that is directly responsible	□-▲	▲	▲	▲-●	▲
5.6 Others (P2: Political Support)				●	●
Overall Average Impact of Problems					
Policy Directions					
5.1 To develop a special redevelopment authority that is directly responsible for the reuse and redevelopment process. This may be in the form of a public authority, public-private, or public-private-community partnership. (P3) Private Authority Also.	○-□	●	▲	▲-●	▲
5.2 To establish network linkages among stakeholders in order to foster consensus, collaboration & partnership:					
• Public-Public Partnership	□-▲	●	▲	▲-●	▲
• Public-Private Partnership	□	●	▲	▲-●	▲
• Public-Private-Community Partnership	▲-●	●	▲	▲-●	▲-●
5.3 Others. (P2: Community Support)				■	■
Overall Average Impact of Policy Directions					
	□-▲	●	▲	●	▲-●

Regarding policy directions, the overall average impact level among all case studies ranked “▲-● moderate-strong”. In general, most of the policy directions ranked “▲ moderate” except for the policy direction of “*establishing public-private-community partnership*” which

⁵⁹⁴ Also, in this case study project, the overall average impact of all political problems ranked lowest among case studies “Weak-Moderate” which might also explain the successful implementation of this project.

⁵⁹⁵ The impact values for this Exhibit are taken from the pertinent exhibits for impact evaluation of problems and policy directions for the four case studies including Exhibits 6.11, 7.13, 8.11, and 9.12.

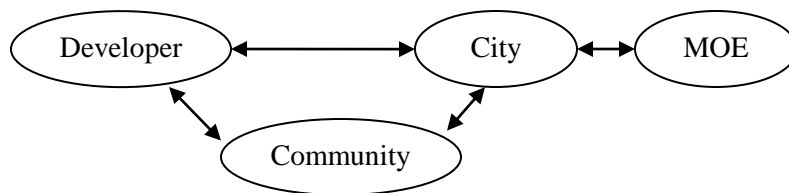
ranked “▲-● moderate-strong”. Also, in Case Study-4 (WHDS) “community support” was an added policy factor by a key participant and ranked it “● strong” impact. This was another indicator for the importance of community involvement in the planning decision making process.

10.5.2 Common Patterns and Linkages that Characterize the Political Planning Sub-process – Four Empirical Case Studies

The main patterns that characterize the political planning sub-process included the following:

- *Main Stakeholders and their Organization in the Process*
- *Main Issues of Stakeholders’ Agreement and Conflict*
- *Development Approval Process and Main Plan Outcomes*

1. **Main Stakeholders and their Organization:** The development approval process represented the organizational set-up for primary stakeholders. The planning process was polarized at two main poles including the project developer and his team of consultants the first pole and the public approval authority represented by the city/municipality as the second pole. The MOE was also involved in monitoring environmental approval and site remediation process. In addition, the local community residents and interest groups were also involved in public consultation meetings. Private project developers were responsible for the redevelopment of the two cases of the G&W project in Toronto and Cooksville Quarry project in Mississauga.⁵⁹⁶ While a quasi-public development corporation (TEDCO) was responsible for the PCD project.



The WHDS project was driven by the City of Hamilton with the aim of marketing the project concept plan to private developers (national and international) who would be responsible for redevelopment. The City was also acting as the developer for the initial redevelopment of Bayfront Park and Harbourfront Trail. The planning process for the WHDS included stakeholders’ study team organization with a Steering Committee having representatives from the public, private, and community sectors (Exhibit 9.3). This stakeholders’ organization was unique among case studies and a key facilitator to decision making in the process.

⁵⁹⁶ In the cases of the G&W and Cooksville Quarry project, the City was collaborating with the developer in conducting its own planning processes in updating City Official Plan amendments, developing urban design guidelines and heritage studies in the case of the G&W.

2. **Main Issues of Stakeholders' Agreement and Conflict:** Stakeholders' consensus was primarily on achieving the objectives of site environmental clean-up and transforming blighted industrial sites into vibrant communities. Also, there was agreement on heritage conservation in the pertinent projects; however, there was difference of opinion on the level of heritage conservation. The main stakeholders' conflicts were between local community residents and interest groups, and the City in some cases, vis-à-vis the developer regarding certain aspects of the redevelopment project. Some of the conflicting issues were as follows:

- Impact and risk of left in contamination as part risk based remediation (SSRA). Even though there was future monitoring, local residents and interest groups were not completely satisfied. This was the perception in all the case studies.
- Impact of building density/height on heritage character as in the G&W in Toronto.
- Impact of newly proposed "Big Box" redevelopment on small retail businesses (PCD project, Toronto).
- Impact of remaining flyash contamination on ground water (Cooksville Quarry project).
- The nature and potential impact of the physical concept plan for the WHDS project in Hamilton, which reflected a major transformation of city fabric and character as well as displacing existing houses and buildings that were characterized as part of City heritage.

In successful case studies like the G&W and Cooksville Quarry projects, the conflicts were resolved through sustained stakeholders' collaboration (and partnership) including the private developer, public approval authority, and community residents and interest groups. On the other hand unsuccessful cases stakeholders' collaboration was not sustained and the redevelopment process was in a way perceived as a "Top-Down" decision making.⁵⁹⁷

3. **Redevelopment Approval Process and Main Plan Outcomes:** The redevelopment approval process primarily included the physical-functional process and the environmental site remediation process, in addition to heritage planning where applicable. The outcome of the physical-functional planning was represented in the form of land use subdivision master plan and urban design guidelines, in addition to heritage plans where applicable. The redevelopment process also included site plan approval process at the level of specific site subdivision areas. The outcome of the redevelopment approval process was a form of redevelopment agreement

⁵⁹⁷ In the case of the WHDS, the City of Hamilton established a successful "Study Team Organization" that had a Steering Committee with wide range stakeholder representatives including the local community and interest groups. In the beginning of the process, this organizational set-up was successful in addressing stakeholders' objectives and reaching agreement. However, toward the end, the City had their own preconceived vision for a physical urban design Concept Plan and how to use it for marketing. Furthermore, the City dissolved the Steering Committee after completing the WHDS Concept Plan. The local community residents and interest groups were against the proposed Concept Plan and perceived it as another "Blue Print" for urban renewal (Key Participants' Interviews, 2000).

between the approval authority and the developer. The City used the redevelopment agreement as a mechanism to bind the developer in order to achieve the desired public interest objectives.

10.5.3 Forms of Stakeholders' Collaboration and Partnership:

The redevelopment process included various forms of collaboration and partnerships among stakeholders. Those partnerships (or agreements) were the backbone for the development approval process as well as for the successful project implementation. Collaboration and partnerships were in the following main forms:⁵⁹⁸

- Public-Private Partnership/Agreement: The main development agreement between the City and the developer was the common form among all implemented projects. The main development agreement also included indemnification agreements in which the original site polluter and the new developer/owner indemnified the City (and MOE in some case) from future liability of remaining site contamination. In some cases, the development agreement also included provision of certain social objectives like social housing and heritage easement.

- Public-Public Partnership/Agreement: In general, the City was collaborating with related local, regional, provincial and federal government entities when conducting the approval process or performing the redevelopment process directly. Financing of the Bayfront Park project in Hamilton was City-MOE partnership where the latter provided the City with a grant provided that the City would arrange for implementing a site remediation plan for the proposed Park. In the case of the G&W project, the City was collaborating with different levels of public sector bodies regarding heritage conservation and the project as a whole.

- Private-Private Partnership/Agreement: Partnerships/agreements were mainly arranged between the primary developer and secondary developer as in the case of the G&W project in Toronto, or with builders of certain parts of the project as in the Cooksville Quarry project.

- Public-Private-Community Collaboration: The community involvement in the project was very important in achieving stakeholders' agreement on main issues. This collaboration was primarily within public consultation meetings, workshops and open houses. In the WHDS project, there was a special project team organization with a Steering Committee that had representatives from all sectors including public sector, private sector and the community.

⁵⁹⁸ See Appendix A10.5 for detailed outline of forms of stakeholders' collaboration and partnership.

10.6 PROJECT IMPLEMENTATION PLANNING AND PHASING

10.6.1 Comparative Analysis of Problems and Policy Directions and their Impacts

As perceived by key participants in the process, the overall average impact level for the selected problems associated with “Implementation” ranked “▲ moderate” impact (Exhibit 10.6). The higher ranking problems impact was “difficulty of project initiation ...” and “long time delays in the process” which rated “▲-● moderate-strong” impact.⁵⁹⁹ This was an indication that the selected problems for this component were fairly effective.

The overall average impact level for policy directions ranked “▲-● moderate-strong” impact. The policy direction of “adopting a gradual site remediation and redevelopment strategy through site subdivision into prioritized sub-area implementation packages” ranked “▲-● moderate-strong” on average for all case studies. This is especially the case for large sites. The same policy direction ranked “● strong” in the cases of the G&W project and Cooksville Quarry project. The policy direction of “addressing site remediation as the first implementation package and then site reuse and redevelopment as a second package” ranked “▲ moderate” impact on average for all case study projects. While the same policy direction ranked “● strong” for the case of the G&W project. Overall, the selected policy directions had an effect on the success or failure of the case study projects.⁶⁰⁰

6. Project Implementation Component: <i>Implementation Planning and Phasing</i>	Overall Average Impact for Each Case Study					
	■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0					
	Case Study-1	Case Study-2	Case Study-3	Case Study-4		Total Ave.
Problems and Issues						
6.1 Difficulty of project initiation due to high risks & uncertainty	▲-●	▲-●	●	●		●
6.2 Difficulty of phasing site remediation as a first and separate implementation package before actual site redevelopment	▲	□	▲-●	▲-●		▲
6.3 Difficulty of gradual implementation through phasing the overall site redevelopment into sub-area packages that are prioritized for site remediation and redevelopment due to:						
• Legal requirements for approved overall site remediation.	□-▲	○-□	▲	▲-●		□-▲
• Site conditions and the proposed reuse/redevelop. project.	□-▲	□	▲	▲-●		▲
6.4 Long time delays in the process	▲-●	□-▲	▲	●		▲-●
6.5 Others						
Overall Average Impact of Problems	▲	□-▲	▲-●	▲-●		▲

⁵⁹⁹ The problem of “Difficulty of Project Initiation” ranked “strong” impact in the cases of Cooksville Quarry project in Mississauga and WHDS in Hamilton. Also, the problem of “Long Time Delay in the Process” ranked “strong” impact in the case of WHDS in Hamilton.

⁶⁰⁰ In the case of the WHDS in Hamilton, the project was relatively large and would definitely require a phasing strategy for implementation which was lacking in the plan for the project.

⁶⁰¹ The impact values for this Exhibit are taken from the pertinent exhibits for impact evaluation of problems and policy directions for the four case studies including Exhibits 6.12, 7.14, 8.12, and 9.13.

Policy Directions for Implementation						
6.1	To address site remediation as 1st implementation package and then site reuse and redevelopment as a 2 nd package	●	▲	□-▲	▲	▲
6.2	To adopt a gradual site remediation and redevelopment strategy (especially for large sites) through site subdivision into prioritized sub-area implementation packages.	●	▲	●	▲	▲-●
Overall Average Impact of Policy Directions		●	▲	▲	▲	▲-●

10.6.2 Common Patterns that Characterize Implementation Planning & Phasing

All case study projects included a form of master development plan, whether it was a concept plan like in the G&W project in Toronto and the WHDS in Hamilton, or it was a plan of site subdivision as in the Cooksville Quarry project in Mississauga, or a plan for an already subdivided project area as in the PCD project in Toronto. In some cases, the master plan included a defined phasing strategy in terms of subdividing the project site into prioritized smaller implementation areas as in the G&W project with special identity districts and the subdivision plan for the Cooksville site with three defined phases for implementation. In the case of the PCD, the project was already subdivided into smaller site areas that can be the basis for a phasing strategy. In the case of WHDS project, and even though there was no defined phasing of implementation strategy, the master concept plan included a subdivision into smaller district areas that might have worked as the basis for a phasing strategy. The subdivision of the project into smaller area phases of implementation can be explained by the fact that all project sites were relatively large and it would be more viable to have smaller redevelopment packages to be implemented incrementally.

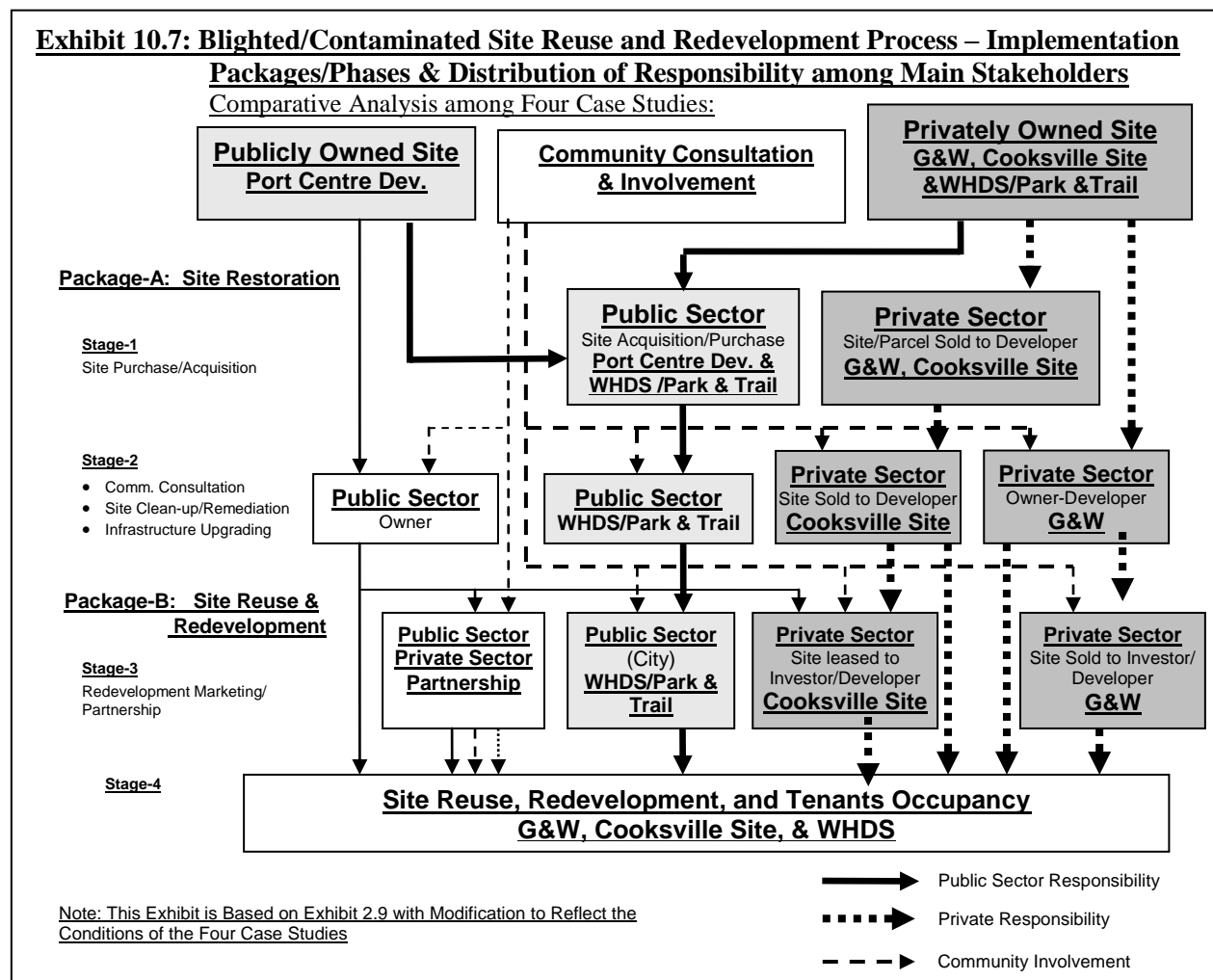
A phasing strategy for project implementation was also affected by the fact that redevelopment of a contaminated site would require prior environmental approval and implementation of a site remediation plan. In general, it was accepted by approval authorities to have site remediation and site redevelopment performed incrementally on a smaller subdivided site basis, provided that monitoring was performed for potential impacts. This was the case in the G&W project. However, in the case of the Cooksville Quarry project, the developer and builders preferred performing site remediation for the entire project site before starting project marketing and site redevelopment in order to reduce negative perception of a contaminated site.⁶⁰²

Stakeholders' Responsibility versus Project Implementation Phasing Packages

⁶⁰² Also in the case of the Cooksville Quarry project, and due to different types of site contamination, the plan for site remediation process included two phases of implementation, namely the flyash landfill area and other project areas that were affected by contamination from brick factory operations.

In general, the implementation planning process for contaminated sites redevelopment included two packages (or phases), namely site remediation-restoration and then site redevelopment. The first phase also included arrangements for site acquisition or purchase by the potential developer. The site redevelopment package (or phase) may also include project marketing for potential builders or investors as well as to tenants for occupancy (Exhibit 10.7).

Originally, three of the project sites were totally or predominantly privately owned including the G&W, Cooksville Quarry, and the WHDS projects.⁶⁰³ In the G&W and Cooksville Quarry projects, the private developer/owner was responsible for both site remediation and site redevelopment. Stakeholders' partnerships helped in implementing the projects.⁶⁰⁴



⁶⁰³ The WHDS project area was relatively large and included mixed private and public property ownership. However, property ownership was predominantly private. CN Rail which owned the marshalling yard and the rail corridor, was originally a federal agency but was transformed into a private entity during the process of the WHDS project (Key Participants' Interviews, 2000).

⁶⁰⁴ In the G&W project, a secondary developer was also responsible for the social/housing.

In the case of the WHDS, the City of Hamilton that initiated the process purchased from CN Rail the land designated for the Harbourfront Trail project and the City was responsible for site remediation. Also, the Bayfront Park site was originally privately owned and the City had purchased it and performed site remediation and redevelopment.⁶⁰⁵ Primarily, the City was aiming at marketing the WHDS project concept plan to private developers because of its size and cost which was beyond City capacity. The project was not implemented except for the Bayfront Park and Harbourfront Trail.

The PCD project site in Toronto was predominantly owned by TEDCO with the exception of three properties that were privately owned.⁶⁰⁶ In general, TEDCO was responsible for site remediation and site redevelopment.⁶⁰⁷ TEDCO had arranged prior agreements with private retail investors like Costco and Knob Hill Farms with a long term lease and the investors will be responsible for actual construction of the project within their designated sites. The project was not implemented due to conflict of vision and objectives between TEDCO and the City of Toronto as well as with local small business groups.

10.7 POTENTIAL POLICY DIRECTION: Self-Financing like Tax Increment Financing or Tax Increment Equivalent Financing (TIF/ TIEF)⁶⁰⁸

The TIF/TIEF program was not implemented in any of the case study projects. The purpose of including this policy direction is to study and evaluate its potential for application to cover site remediation cost.

10.7.1 Comparative Analysis of Problems and Policy Directions and their Impacts

As perceived by key participants in the process, the main problems in establishing a self-financing policy program like TIF/TIEF were “*conflicts with the Municipal Act and institutional organizational issues*” which ranked “● strong” on an overall average among case studies (Exhibit 10.8). The Municipal Act does not permit bonusing and TIF/TIEF program was perceived as bonusing the developer. Regarding “*capability of a TIF/TIEF program to finance the cost of site remediation through future tax increments*”, the perception of key participants ranked “▲ moderate” impact on overall average.

⁶⁰⁵ Public-public partnership between MOE and the City was essential in implementing the Bayfront Park project.

⁶⁰⁶ There was a fourth site that was privately owned and used by Imperial Oil and TEDCO had purchased it.

⁶⁰⁷ The previous users/polluters of the two sites (Imperial Oil and Sunoco) were responsible for site remediation. Sunoco chose to perform site remediation themselves and Imperial Oil compensated TEDCO for remediation cost.

⁶⁰⁸ Tax Increment Equivalent Financing (TIEF) is the Canadian program that is similar to Tax Increment Financing (TIF) program that is applied in the U.S. For more details, see Section 2.2.1, Chapter Two.

The policy direction of “*establishing a self-financing program like TIF/TIEF*” ranked “● strong” according to key participants in the process. The potential of a “*TIF/TIEF program to cover site remediation cost within fifteen years*” ranked “▲-● moderate-strong” on overall average perception while the potential for covering the cost within twenty years or more was perceived as “● strong” on overall average among the four case studies.⁶⁰⁹

Exhibit 10.8: Comparative Analysis of Impacts of Problems & Policy Directions among Four Case Studies⁶¹⁰						
7. Potential Policy Direction: <i>Self-Financing Approach Like TIF/TIEF</i>		Overall Average Impact for Each Case Study				
		■ V. Strong / 5		● Strong / 4		▲ Moderate / 3
Note: The problems/Issues and Policy Directions are the same as those in the Original Participants Questionnaire (Exhibit 6b & 7b)		□ Weak / 2		○ V. Weak / 1		- NA / 0
		Case Study-1	Case Study-2	Case Study-3	Case Study-4	Total Ave.
Problems and Issues						
7.1	After site redevelopment, the expected property tax increments for the site and surrounding properties will be relatively low for financing the initial site remediation cost.	■	□-▲	○	▲	▲
7.2	Outline other problems/obstacles facing a (TIF) plan like:					
	• Legal factors - Municipal Act	■	□-▲	●-■	▲-●	●
	• Institutional or organizational factors -	■	■	▲	▲-●	●
Overall Average Impact of Problems		■	▲	▲-●	▲-●	▲-●
Policy Directions						
7.1	To develop a self-financing mechanism (like TIF/TIEF) to finance the cost of site remediation	▲	●-■	■	▲-●	●
7.2	Roughly estimate and relate the following: After redevelopment, future tax increments on the site (and surrounding properties) can capitalize initial site remediation cost within a period of:					
	• Fifteen years	○	●	■	■	▲-●
	• Twenty years	-	●-■	▲	●	●
	• More than twenty years	-	■	□	■	●
7.3	Other Financing Methods	▲	▲			▲
Overall Average Impact of Policy Directions		□-▲	●	▲-●	●	▲-●

10.7.2 Common Issues that are Related to Tax Increment Financing (TIF/TIEF) as Self-Financing Policy Direction

The essence of TIF/TIEF programs is based on using future tax increments for the property as a result of site redevelopment in order to cover the cost of site remediation. The main pertinent issues were as follows:

⁶⁰⁹ A good number of Key Participants had limited knowledge about the TIF/TIEF program and accordingly, the validity of their responses was questionable. Other sources of information would be required to verify findings.

⁶¹⁰ The impact values for this Exhibit are taken from the pertinent exhibits for impact evaluation of problems and policy directions for the four case studies including Exhibits 6.13, 7.15, 8.13, and 9.14.

Financial Applicability of a Form of TIF/TIEF Program

Even though the TIF/TIEF program was not implemented in the selected case study projects, there was a strong inclination among Key Participants that such a self-financing approach would be viable for covering the cost of site remediation within a period of ten to fifteen years.⁶¹¹

Obstacles and Potential for Establishing TIF/ TIEF Program in Canada

The main problem facing the establishment of a TIF/TIEF program in Canada was not financial feasibility of the program, but the legal and organizational issues. In Ontario, the main obstacle is the stipulation of the Municipal Act, which does not permit bonusing the developer. The TIF/TIEF program was perceived as bonusing the developer, especially when tax increment funds were granted to the developer as an incentive for site clean-up and redevelopment. In one approach to resolve this obstacle, some Municipalities in Ontario had to establish a community improvement area so that bonusing the private developer would be allowed according to the Planning Act. Another approach to resolve this obstacle was to have the municipality be responsible for managing and using the tax increment funds for site remediation and in this case a private entity would not be needed and bonusing could be avoided. However, this approach would imply an added responsibility on the municipality to perform site clean-up themselves which would be more of a developer's responsibility. Also, this approach may imply a need for establishing a form of public development authority that would be linked with the municipality, and would be directly responsible for managing this program.⁶¹² In this case, the development company may use the funds from TIF/TIEF to perform or manage site clean-up.

Main Linkages between TIF/TIEF Policy Direction & Other Planning Sub-processes

Cost of site remediation was considered as one of the key problems facing the redevelopment of contaminated sites. This was evidenced by the adoption of a site specific risk assessment approach (SSRA) for site remediation as a cost effective approach. The TIF/TIEF financing program can be a proper solution for this issue in terms of securing the initial funding for site remediation cost. Also, this financial program can be set up to achieve a continuous revolving

⁶¹¹ In the Cooksville project in Mississauga, the Developer mentioned that property tax had increased from \$0.5 M. per year before redevelopment to \$6.5-\$7 M. per year after redevelopment and cost of site remediation was \$13 M. Accordingly, future tax increments may cover this cost within five years (Key Participants Interviews, 2000). Regarding the PCD project in Toronto, and based on information from Key Participants as well as the Planning Report (TEDCO 1996), the cost of site remediation may be covered by future tax increments within a period of 10-15 years. For more details, see Section 7.3.7, Chapter Seven and Section 8.3.7, Chapter Eight.

⁶¹² In most of the case studies in the U.S. that were reviewed in Chapter One and that included the implementation of a TIF program, the municipality had a special redevelopment authority that was responsible for such projects. In the PCD project in Toronto, TEDCO was responsible for redevelopment and can be the development authority.

fund for site remediation and redeveloping other contaminated sites. In conclusion, the proper functioning of TIF/TIEF financial program as a micro-level financial policy plan can have a significant impact on the overall planning process.

10.8 OVERALL PLANNING PROCESS

10.8.1 Comparative Analysis of Problems and Policy Directions and their Impacts

Problems within the overall planning process were complex and interactive as previously outlined. In this context, and according to perceptions by key participants in the process, the interactive problem impact varied among case studies. The overall average impact for each interactive problem ranged between “▲ moderate” to “● strong” impact among case studies (Exhibit 10.9). The interactive problems “environmental contamination versus project economic feasibility & marketability” ranked “● strong” impact, which is the highest compared to other problems. Three selected problems ranked “▲-● moderate-strong” impact including “*environmental contamination versus stakeholders’ conflicting objectives,*” “*difficulty of developing future planning vision due to multiple-component complexity and due to stakeholders’ conflicting interests & objectives.*” While the remaining problems ranked “▲ moderate” impact including “*difficulty of integrating multiple planning processes*” and “*environmental contamination versus physical-functional declining image and versus social equity & security issues.*” Even though there was variation in problem impact levels among case studies, there was indication that the selected problems had a level of significance.

The perceptions of key participants for selected policy directions ranked between “●-■ strong-very strong” impact for “*having a clear vision for the project*” and “● strong” impact for “*adopting an integrative planning framework*” and for “*commitment to planning in dealing with large sites.*” In general, this indicated that adopting a clear integrative planning approach is relatively effective and related to such projects.

8. Overall Planning Process: <i>Multiple-Component Planning with a Clear Vision</i>		Overall Average Impact for Each Case Study				
		■ V. Strong / 5		● Strong / 4		▲ Moderate / 3
Note: The problems/Issues and Policy Directions are the same as those in the Original Participants Questionnaire (Exhibit 6b & 7b)		□ Weak / 2		○ V. Weak / 1		- NA / 0
		Case Study-1	Case Study-2	Case Study-3	Case Study-4	Total Ave.
Problems and Issues						
8.1	Site problems are complex and interactive in nature like environmental contamination risks and liabilities vs.: ● project economic feasibility and marketability,	●-■	▲-●	▲-●	●	●

⁶¹³ The impact values for this Exhibit are taken from the pertinent exhibits for impact evaluation of problems and policy directions for the four case studies including Exhibits 6.14, 7.16, 8.14, and 9.15.

• physical-functional declining image and blight,	□-▲	▲	▲	▲	▲
• stakeholders' conflicting interests and objectives,	▲-●	●	●	▲	▲-●
• social equity and security issues.	□	□	●-■	▲	▲
8.2 Difficulty of developing future site redevelop. vision due to:					
• multiple-component problem complexity,	▲	●	▲	▲-●	▲-●
• stakeholders' multiplicity and varying views.	▲-●	●	▲-●	▲-●	▲-●
8.3 Difficulty of integrating multiple planning processes including: site remediation, physical planning/design, financial planning & marketing, social equity planning, & stakeholders' partnerships	▲-●	▲-●	▲	▲	▲
8.4 Others (P2: Planning Strategy)				●	●
Overall Average Impact of Problems	▲	▲-●	▲-●	▲-●	▲-●
Policy Directions					
8.1 Having a clear vision and/or plan for the project	▲-●	●-■	●-■	●-■	●-■
8.2 Commitment to planning especially in dealing with large sites	□-▲	●-■	●-■	●-■	●
8.3 Adopting an integrative planning framework to link the major planning sub-processes including: site remediation, physical planning & design, project financing & marketing, social equity/security planning, & stakeholders' partnership	●	●-■	▲	●	●
8.4 Others					
Overall Average Impact of Policy Directions	▲-●	●-■	●	●	●

10.8.2 Common Patterns that Characterize the Overall Planning Process

The main elements that characterize the overall planning process include the following:

- *Multiple Component Planning Process including Sub-processes*
- *Interactive Planning Process among Components & Planning Sub-processes*
- *Multiple Levels Planning Process*
- *Incremental Redevelopment Process*
- *Context of Urban Transformation and Inner City Revitalization*

1. Multiple Component Planning Process including Planning Sub-processes

The overall planning process was complex and constituting multiple components and planning sub-processes. The problem components are consolidated in the following five main groups:

- Environmental Component: Environmental Site Remediation Planning Sub-process
- Physical-Functional Component: Land Use Planning Sub-process and Urban Design
- Economic Component: Financial Planning Sub-process and Marketing
- Social Component: Social Planning Sub-process, Social Equity and Safety Planning
- Political Component: Stakeholders' Organizational Planning Sub-process

Each planning component and sub-process consisted of various sub-components that had other levels of decision making sub-processes.⁶¹⁴ Some of the sub-components, like heritage planning, were very important in certain projects like the G&W project, which made them

⁶¹⁴ In certain projects, the environmental planning sub-process, and in addition to site remediation planning, included flood proofing, park planning, noise and vibration mitigation, as well as solar studies. The physical-functional planning sub-process included several sub-components including land use planning, urban design, heritage conservation, transportation planning, and architectural design.

dominant factors in the decision making process. Decision making within planning sub-processes and their sub-components were intertwined to form an integrated setting.

An important conclusion is that multiple component problems and their pertinent planning sub-processes should be treated with prior neutrality and it is contextual analysis in a given project that will outline the priority factors in the process. Any prior bias toward any component may deviate the planning process and may lead to stakeholders' conflicts.⁶¹⁵

2. Interactive Planning Process among Components & Planning Sub-processes

Clear pattern of interactive linkages were identified among components and planning sub-processes. The major linkages have to be addressed in the overall planning process as well as in individual planning sub-processes. Most of the major linkages have been discussed in the previous sections on individual planning sub-processes. However, a synopsis of some of the main series of linkages is as follows:

- ***Environmental-Economic-Political Interactive linkages:*** Environmental contamination affects cost of site remediation, which is required as part of the development approval process. Polluters/owners are responsible for site remediation. Also, different stakeholders may have different, and sometimes conflicting, views and interests regarding contamination and required site remediation. The main conflicting issues are liability and cost versus environmental risk of site remediation. The SSRA as a cost-effective site remediation approach is the trade-off.

- ***Physical - Environmental - Economic Interactive linkages:*** Proposed land use functions had different levels of clean-up criteria according to environmental regulations and consequently implied different site remediation cost. Site remediation for residential land use functions required the most stringent clean-up criteria and was relatively more costly than site remediation for industrial and commercial functions.

- ***Physical/Heritage - Building Density - Economic - Political Interactive Linkages:*** Heritage conservation was advocated by heritage groups, as well as by the City and the community. However, it was a relatively costly process which put financial burden on the developer. In the G&W project in Toronto, and in order to achieve financially feasible balance, the project Developer was given more development density as an economic bonus and in return

⁶¹⁵ A good example is the PCD project in Toronto, where the developer/TEDCO was following its mandate that focused on economic objectives. This economic bias led TEDCO to exclusively select industrial and commercial functions for the project due to high economic returns. Even though TEDCO was economically successful in terms of securing cost of site remediation from previous users/polluters, as well in securing potential investors, the project failed because of stakeholders' conflict of vision and interest between TEDCO and the City and the community.

for performing the required heritage conservation. This was part of the development agreement between the City of Toronto and the Developer.

- ***Environmental - Political - Physical Interactive Linkages:*** The environmental approval process was intertwined with the physical site redevelopment approval process. A development agreement was usually signed between the Developer and the City to secure implementation of the site remediation process as approved by the City and other approval authorities.⁶¹⁶

- ***Economic - Physical – Socioeconomic - Political Interactive Linkages:*** The economic feasibility of a project, usually done by the Developer, is related to the land use functions and their marketability. In all the cases, there was stakeholders' consensus on performing site remediation. However, the conflicting issues might be on proposed land use functions (PCD project in Toronto), level of development density/height (Cooksville project in Mississauga), and level of heritage conservation (G&W project). To resolve the conflicts, a balance is required among the objectives of the developer, public approval authority and the local community.

3. **Multi-spatial Level Planning Process:** The overall redevelopment planning process was represented at mainly two physical-functional levels including.⁶¹⁷

- ***Macro-Level Planning:*** This included the overall project site and was represented in the form of land use master planning and site subdivision into smaller individual sites, in addition to urban design guidelines. Master planning included a development master plan or community plan of subdivision, heritage master plan, and landscape master plan as in the G&W project.

- ***Micro-Level Planning:*** This included specific sites and buildings within the project subdivision and architectural design issues were represented at this level. This level also included site plan control approval process as in the case of the G&W project and Cooksville project.

In addition, it was also important to relate the project site redevelopment with the surrounding context including its future vision.

4. **Incremental Redevelopment Process:** In all implemented case studies, the redevelopment process was incremental in various aspects. In the case of the G&W project, both site remediation and site redevelopment were performed on a subdivided site by site plan

⁶¹⁶ The development agreement may also include other issues like heritage conservation and affordable housing as in the G&W project. In addition, it may include indemnification agreements as in the Cooksville Quarry project.

⁶¹⁷ Planning consideration was also represented at larger scales than the project site including surrounding neighbourhoods, District and City levels.

approval and implementation basis. However, there was an overall Master Development Concept Plan that formed the planning guide for the redevelopment process.⁶¹⁸

5. Context of Urban Transformation, Heritage Conservation & Inner City Revitalization:

In all implemented case study projects, the process was a form of brownfield redevelopment planning in the context of urban transformation and inner city revitalization. In certain cases that were rich with heritage features, then heritage planning was an integrative part to the overall planning process. The proposed functions were a form of mixed-use redevelopment including residential, commercial, office, park and recreation functions. Also, the new redevelopment was a form of intensification in terms of higher building density and height.

⁶¹⁸ The Master Development Concept Plan was liable for adjustment as individual sites were being approved and redeveloped. Individual site went through site plan control approval process.

**PART THREE: PROPOSED PLANNING FRAMEWORK,
CONCLUSIONS & RECOMMENDATIONS**

Part Three is a synthesis of common findings of Part One and Part Two which includes an outline of the planning framework for the redevelopment of blighted contaminated industrial sites, in addition to conclusions and recommendations (Exhibit 11.1). Chapter Eleven provides an outline of the substantive/applied and the theoretical planning framework, which includes the problem context, pertinent policy directions, in addition to characteristics of the proposed planning process. The main problems, issues and policy directions identified in this research may form the basis for developing multiple component planning indicators/criteria that can be used for evaluating brownfield redevelopment. A brief summary of conclusions and recommendations for future research are included in Chapter Twelve.

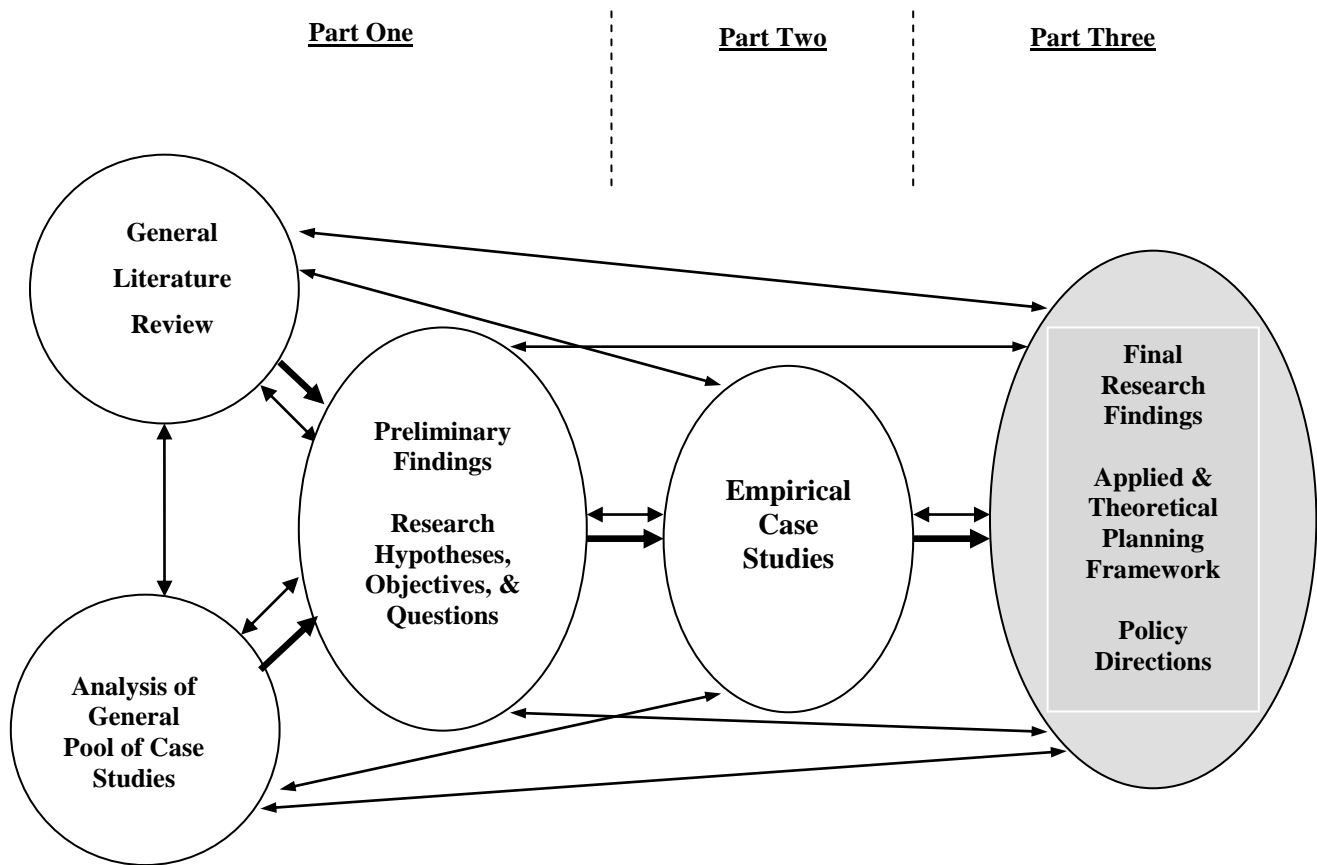


Exhibit 11.1: General Framework for the Research Process Elements Highlighting Part Three

- ➔ Directional Flow of the Research Process
- ↔ Interactive Relationship among Research Stages

CHAPTER ELEVEN: PLANNING FRAMEWORK FOR REDEVELOPMENT OF BLIGHTED/CONTAMINATED INDUSTRIAL SITES

The substantive/applied planning framework is focused on the problem context of redeveloping inner city blighted contaminated industrial sites (brownfields) and the pertinent planning course of action to achieve the desired objectives. Planning course of action includes policy directions and guidelines that may be incorporated into public policy level as well as project planning level as performed by the public approval authority (or authorities) and the project developer's team. In addition, theoretical representation is also provided for the various aspects of the planning process. The outline for the planning framework includes the following:

- *Problem Context.*
- *Pertinent Policy Directions.*
- *Characteristics of the Planning Process.*

The analysis is based on the eight research units of analysis, derived in Part One and applied in Part Two empirical case study analysis.⁶¹⁹ Conclusions are discussed in the context of findings of literature review and empirical case study analysis.

11.1 PROBLEM CONTEXT

The research findings indicate that the problem context is a complex setting in terms of multiplicity and interactive nature of problem components. The impact evaluation of identified problems and issues as perceived by key participants in four empirical case studies may give a general idea for their relative importance as well as an indication for potential policy directions in a given context (Exhibit 11.2).⁶²⁰ The findings of this impact evaluation reveal that each of the problem components has scored “▲-● moderate-strong” on overall average except for the social component and plan implementation that scored “▲ moderate” impact. In general, these findings indicate effectiveness of all problem components. At the level of individual problem factors, the results show that twenty eight out of a total of fifty two selected problem factors (54%) in all components ranked in overall average between “▲-● moderate-strong” to “■ very strong” impact. These problem factors are as follows, starting from the highest impact level.⁶²¹

⁶¹⁹ The eight research units are outlined in Chapter Five, Empirical Research Method. These include the five consolidated components: environmental-legal, physical-functional, economic, social and political-organizational components, in addition to project implementation & phasing, Key Policy Direction (TIF/TIEF), and the overall planning process.

⁶²⁰ Exhibit 11.2 is a compilation of the pertinent Exhibits for impact evaluation of problems and issues outlined in Chapter Ten, which includes Exhibits 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.8, and 10.9.

⁶²¹ See Exhibit 11.2 for a complete outline.

- *Application of former decommissioning guidelines* (■ very strong)
- *Project impact on local retail market* (■ very strong)
- *Environmental contamination of site and/or buildings* (●-■ strong to very strong)
- *Interactive linkages between environmental contamination vs. economic feasibility* (●)
- *Site visibility from main transportation routes* (● strong)
- *Difficulty of project initiation due to high risk and uncertainty* (● strong)
- *Legal, institutional and organizational factors as obstacles facing TIF/TIEF* (● strong)
- *Surrounding land use designation* (● strong)
- *Political support* (●strong)
- *Planning strategy* (●strong)
- *Legal liabilities of contamination and decontamination* (▲-● moderate to strong)
- *Other human & natural ecosystem health hazard* (▲-● moderate to strong)
- *Clarity and consistency of current approval process for site remediation* (▲-●)
- *Linkages: environmental contamination vs. stakeholders' conflicting objectives* (▲-●)
- *Government commitment to approval for site remediation* (▲-● moderate to strong)
- *Accessibility to/from main transportation routes* (▲-● moderate to strong)
- *Availability of public transportation* (▲-● moderate to strong)
- *Site remediation cost effect on project financial feasibility* (▲-● moderate to strong)
- *High cost of heritage conservation and restoration of buildings* (▲-● moderate-strong)
- *Scarcity of public and private funding* (▲-● moderate to strong)
- *Conflicting goals, interests and values of primary stakeholders* (▲-● moderate-strong)
- *Lack of stakeholders' consensus on major objectives and issues* (▲-● moderate-strong)
- *Long time delays in the process* (▲-● moderate to strong)
- *Difficulty of developing site redevelopment vision due to complexity* (▲-●)

General observations and conclusions from impact evaluation of problems are as follows:

1. The problem factors that scored highest impact “■ very strong” included “*application of former decommissioning guidelines*” and “*Project impact on retail market*”. These factors were added during interviews by key participants in the specific case studies of Cooksville Quarry project (Mississauga) and PCD project (Toronto). Accordingly, their evaluation was based on one individual participant in the pertinent case rather than on groups of participants within each of the two case studies. Anyway the first factor was still valid since there were similar factors in the questionnaire list like “*clarity and consistency of environmental approval process*” that ranked “▲-● moderate-strong” impact (Item 1.4, Exhibit 11.2).

2. One problem factor that scored second highest impact “●-■ strong to very strong” was “*environmental contamination of site and/or buildings*”. This is relatively consistent among all four case studies which indicate its relative effectiveness in the process.

3. There were seven problem factors that scored “● strong” impact. Four of those factors showed consistency of impact level among case studies including “*Item 2.5 Site visibility from*

main transportation routes”, “*Item 6.1 Difficulty of project initiation due to high risk and uncertainty*”, “*Item 7.2 Legal, institutional and organizational factors as obstacles facing TIF/TIEF*”, and “*Item 8.1 Interactive linkages between environmental contamination vs. economic feasibility*”. On the other hand, three problem factors that scored “● strong” were added by individual key participants in the pertinent case studies including “*Item 2.6 Surrounding land use designation*”, “*Item 5.6 Political support*”, and “*Item 8.4 Planning strategy*”. Even though these problem factors represent perceptions of individual key participants, they may be considered as potentially important factors. Other sources of evidence are required to verify the significance of these problem factors.

4. There were fourteen problem factors that scored “▲-● moderate to strong” impact. Seven problem factors showed consistency of impact level among 3-4 case studies including:

Item 1.3 Legal liabilities of contamination and decontamination

Item 1.4 Clarity and consistency of environmental approval process

Item 1.4 Government commitment to approval for site remediation

Item 2.5 Accessibility to/from main transportation routes

Item 5.1 Conflicting goals, interests and values of primary stakeholders

Item 5.3 Lack of stakeholders’ consensus on major objectives and issues

Item 8.1 Linkages: environmental contamination vs. stakeholders’ conflicting objectives

The remaining seven problem factors within this impact category showed lower consistency level, basically applicable to two out of the four case studies.

5. In general, the overall impact average of most of the identified problem factors (42 out of 52 factors - 81%) showed “▲ moderate” impact and above, which indicated that identified factors were fairly effective as perceived by key participants.

6. The perception of factors within the social component appeared to be relatively less effective except for social stigmatization of the area that ranked “▲ moderate” impact. The overall average impact level for the social component ranked “□-▲ weak-moderate”. The impact level of social factors was generally consistent among the four case studies (*Items 4.1-4.4*, Exhibit 11.2). In general, the results indicate that stated social problems did not represent a critical issue in the empirical case studies.

7. The impact level of certain factors across case studies varied like legal liabilities and time delay in the site remediation approval process which indicated that those factors were affected by case conditions and/or stakeholders’ perception varied among case studies.

8. In general, the problem factors of the “*Environmental-Legal*” component appeared to have relatively stronger impact ranging from “▲-● moderate-strong” to “■ very strong” as compared to factors of other components. The overall average impact is “● strong”.

9. The relative importance of Environmental Component factors is consistent with the policy recommendations of the NRTEE-2003 “*National Brownfield Redevelopment Strategy*” that emphasized on public investment to address upfront costs of site remediation as well as addressing effective public policy for defining and limiting environmental liability (Exhibit 2.8).

10. Also, the relative importance the Environmental Component factors is in a way consistent with some current research findings like (Heberle & Wernstedt, 2006: 494; and Wedding & Crawford-Brown, 2007: 492);⁶²² however, it is inconsistent with some other research findings like (Lange & McNeil, 2004: 104).⁶²³ These variations in research findings on the relative importance of problem factors within different components make it difficult to generalize such case study findings. However, these variations indicate that the relative importance of problem components and pertinent factors are more case specific and contextual rather than generic.

11. Based on the above outline, one can conclude that most of the identified factors within the multiple problem components have a significant impact on brownfield redevelopment. In the literature, there is an inclination to be holistic in terms of developing sustainability indicators for project evaluation that address different problem components including environmental, social, economic and institutional (Thornton, 2007:48; Wedding & Crawford-Brown, 2006: 487; Pediatiti et al, 2006: 58). In addition, other research asserts the importance of integrating multiple components in planning for brownfield redevelopment (Howland 2007).⁶²⁴ These

⁶²² In a study on brownfield regeneration in the U.S. and based on a sample of 90 respondents from survey of EPA brownfield pilots, Heberle & Wernstedt (2006) found that the highest percentage score for reasons for redevelopment were environmental factors (*protect public health, remove eyesores, and protect the natural environment*), and then came the economic and other factors (*increase tax revenue, provide alternatives to sprawl, create jobs*). Also, in a study on developing a sustainable brownfield redevelopment tool to measure project success, which included a survey of stakeholders scoring of 40 indicators in four components, revealed that the relative importance of the group of *environmental-health indicators* was the highest (30.2%), then *financial indicators* (29.6%), *livability indicators* (21.6%), & *social economic indicators* (18.6%) (Wedding & Crawford-Brown, 2007).

⁶²³ In a study on defining successful brownfield development, and based on survey responses from individuals associated with 228 US EPA brownfield assessment pilots, it was found that the highest score for outcomes that defined development success was “*long term jobs*” and “*new real estate and income tax bases*”, while “*environmental improvements*” scored seventh (Lange & McNeil, 2004: 104).

⁶²⁴ In a study of employment effects on brownfield redevelopment, Howland outlines that remediation is necessary but not sufficient condition to neighbourhood revitalization and additional incentives, subsidies, and social programs will be required for revitalization. Howland further concludes that “*success involves large-scale planning that integrates site clean-up with wider community development, long-term and substantial government resource commitment, a linking of jobs on brownfield sites to local residents, increasingly sophisticated subsidies and*

findings from literature review and empirical case studies support the research hypothesis for the need to address multiple component problem context and to allow contextual analysis of problem factors to define relative importance in a given context.

12. As outlined earlier, there are different opinions in the literature on the relative importance of components and pertinent factors/indicators and consequently it is difficult to generalize relative weights and scoring of components and indicators. However, there are attempts in current research for developing unweighted indicators like the one proposed by (Thornton et al, 2007) for brownfield-specific sustainability and indicator framework. A general framework of unweighted indicators that is relevant to brownfield redevelopment can still be useful in a given project as a preliminary and potential list of factors to be further developed and weighted according to pertinent project stakeholders' perceptions (Pediatiiti et al, 2006: 58). Weighted indicators in a given project context can then be used as the basis for developing evaluation criteria to assess level of success for redevelopment plans before and after implementation.

13. The main problem factors and issues are related to the redevelopment objectives and together they form the basis for developing potential policy directions. In a given project context, weighted factors/indicators for redevelopment and their prioritization can help in identifying the appropriate policy directions that are suitable to a specific project. Potential policy directions are discussed in the following section.

Exhibit 11.2: Main Problems & Issues & their Impact Level on the Project as Perceived by Key Participants in the Planning Process						
No.	Main Problems and Issues by Component and Planning Sub-processes	Problem Impact Level by Case Study (CS)				Impact Level (Tot. Ave.)
		CS-1	CS-2	CS-3	CS-4	
1.	<i>Environmental-Legal Component: Environmental Site Remediation Planning</i>					
1.1	Environmental Contamination of Site and/or Buildings	●-■	●	●	●-■	●-■
1.2	Other Human & Natural Ecosystems Health Hazard	▲-●	●	▲	▲-●	▲-●
1.3	Legal Liabilities of Contamination and Decontamination:					
	● Current Liabilities	▲	□-▲	●	▲-●	▲-●
	● Future Liabilities	▲-●	▲	●	●	▲-●
	● Real Liabilities (certain like identified contamination)	●	□-▲	▲	●	▲-●
	● Perceived Liabilities (expected but not certain)	▲-●	▲	▲-●	●-■	▲-●
1.4	Current Government Approval Process for Site Remediation:					
	● Clarity and Consistency of Procedure	●	□	●	▲-●	▲-●
	● Length of Procedure (time delay)	●	□	▲	▲-●	▲
	● Government Commitment to Approval for Site Remediation	▲-●	□-▲	▲-●	●	▲-●
1.5	Others (by Participant): Former Decommissioning Guidelines (1989)			■		■

incentives, the importance of design that integrates redevelopment with the existing neighbourhood, and social programs that tackle school quality and job training” (Howland, 2007: 102).

	Overall Average Impact of Environmental Problems	●	▲	▲-●	●		▲-●
2.	<i>Physical-Functional Component: Land Use Planning, Urban Design</i>						
2.1	Unused or Underutilized Buildings/Sites:						
	● Vacant or Abandoned Buildings/Sites	●-■	●	○	▲		▲
	● Underutilized Buildings/Sites	●	●	○	▲		▲
2.2	Structural/Physical Dilapidation of Buildings	□-▲	■	○	▲-●		▲
2.3	Deterioration of Physical Infrastructure Networks	□-▲	▲	○	□-▲		□-▲
2.4	Declining Visual/Environmental Image of the Area	▲	▲	▲	▲		▲
2.5	Site Accessibility and Visibility:						
	● Accessibility to/from Main Transportation Routes	▲-●	●-■	▲-●	▲		▲-●
	● Site Visibility from Main Transportation Routes	▲-●	●-■	●	▲		●
	● Availability of Public Transportation	▲	▲-●	●-■	▲		▲-●
2.6	Others (by Key Participant): Surrounding Land Use Designation				●		●
	Overall Average Impact of Physical-Functional Problems	▲-●	●	□-▲	▲		▲-●
3.	<i>Economic Component: Financial Planning & Marketing</i>						
3.1	Project Perception is Economically not Feasible	▲	□	○	▲-●		□-▲
3.2	Site Remediation Cost Effect on Project Financial Feasibility	▲	□-▲	■	●		▲-●
3.3	High Cost of Building Conservation, Renovation, and Restoration	●-■	□	-	▲-●		▲-●
3.4	Scarcity of Public & Private Funding	●	□	■	▲		▲-●
3.5	Declining Property Values and Tax Base	▲	▲	-	▲-●		▲
3.6	Declining Economic Redevelopment Market of the Area	●	□-▲	▲	□-▲		▲
3.7	Others (by Key Participant): Market Impacts on Local Retail		■				■
	Overall Average Impact Economic Problems	▲-●	□-▲	▲-●	▲-●		▲-●
4.	<i>Social Component: Social Equity & Safe Community Planning</i>						
4.1	Social Inequities/Injustice Due to Negative Socio-economic	□-▲	□-▲	▲	□-▲		□-▲
4.2	Low Educational Levels High Unemployment Rate among Residents Enhances Problems of inaccessibility to Jobs	○-□	□	○	□-▲		□
4.3	Social Problems Associated with Dilapidated and Abandoned Buildings & Sites	□-▲	□	○	□-▲		□
4.4	Social Stigmatization of the Area	▲	▲	□	▲-●		▲
	Overall Average Impact of Social Problems	□-▲	□-▲	□	□-▲		□-▲
5.	<i>Political Component: Political-Organizational Planning</i>						
5.1	Conflicting Goals, Interests and Values of Primary Stakeholders	▲-●	●-■	□	▲-●		▲-●
5.2	Lack of Stakeholders' Commitment to Achieve Objectives	▲-●	▲-●	□	▲		▲
5.3	Lack of Stakeholders' Consensus on Major Objectives & Issues	▲-●	●-■	□	▲		▲-●
5.4	Lack of Stakeholders' Organizational & Collaborative Commitment	▲-●	●	□	□-▲		▲
5.5	Lack of Special Redevelopment Authority That is Directly	□-▲	▲	▲	▲-●		▲
5.6	Others (by Key Participant): Political Support				●		●
	Overall Average Impact of Political Problems	▲-●	●	□-▲	▲-●		▲-●
6.	<i>Project Implementation & Phasing</i>						
6.1	Difficulty of Project Initiation due to High Risks & Uncertainty	▲-●	▲-●	●	●		●
6.2	Difficulty of Phasing Site Remediation as a First and Separate Package before Actual Site Redevelopment	▲	□	▲-●	▲-●		▲
6.3	Difficulty of Gradual Implementation through Phasing the overall Site Redevelopment into Sub-Area Packages that are Prioritized for Site Remediation and Site Redevelopment.						
	● Legal Requirements for Approved overall Site Remediation First	□-▲	○-□	▲	▲-●		□-▲
	● Site Conditions & the Proposed Reuse/Redevelopment Project	□-▲	□	▲	▲-●		▲
6.4	Long Time Delays in the Process	▲-●	□-▲	▲	●		▲-●
	Overall Average Impact of Implementation Problems	▲	□-▲	▲-●	▲-●		▲
7.	<i>Potential Policy: Self-Financing Approach like TIF/TIEF</i>						
7.1	After Site Redevelopment, the Expected Property Tax Increments for the Site & Surrounding Properties will be Relatively low for	■	□-▲	○	▲		▲
7.2	Outline other Problems/Obstacles Facing (TIF/TIEF) Plan like:						

	• Legal Factors – Municipal Act	■	□-▲	●-■	▲-●		●
	• Institutional or Organizational Factors -	■	■	▲	▲-●		●
	Overall Average Impact of Problems	■	▲	▲-●	▲-●		▲-●
8.	Overall Multiple Component Planning Process						
8.1	Site Problems are Complex and Interactive in Nature Like Environmental Contamination Risks and Liabilities versus:						
	• Project Economic Feasibility and Marketability	●-■	▲-●	▲-●	●		●
	• Physical-Functional Declining Image and Blight	□-▲	▲	▲	▲		▲
	• Stakeholders’ Conflicting Interests and Objectives	▲-●	●	●	▲		▲-●
	• Social Equity and Security Issues	□	□	●-■	▲		▲
8.2	Difficulty of Developing Future Site Redevelopment Vision due to:						
	• Multiple-Component Problem Complexity	▲	●	▲	▲-●		▲-●
	• Stakeholders’ Multiplicity and Varying Views	▲-●	●	▲-●	▲-●		▲-●
8.3	Difficulty of Integrating Multiple Planning Processes Including Site Remediation, Physical Planning & Design, Financial Planning & Marketing, Social Equity & Security Planning, & Stakeholders’ Organization & Partnership	▲-●	▲-●	▲	▲		▲
8.4	Others (by Key Participant): Planning Strategy				●		●
	Overall Average Impact of Problems	▲	▲-●	▲-●	▲-●		▲-●
■ Very Strong-5 ● Strong-4 ▲ Moderate-3 □ Weak-2 ○ Very Weak-1							
CS-1: G&W, Toronto; CS-2: Port Centre Development, Toronto; CS-3: Cooksville Quarry, Mississauga; CS-4: WHDS, Hamilton							

11.2 PROPOSED POLICY DIRECTIONS & GUIDELINES

The proposed policy directions and guidelines are originally part of research findings of preliminary literature review and general case study analysis outlined in Part One.⁶²⁵ In Part Two empirical case study analysis, the proposed policy directions are further analyzed and their impact evaluation on the four empirical case studies is performed based on perceptions of key participants in the process. Some of the key participants have added few other policy directions which are also included under “Others”. Exhibit 11.3 outlines the proposed policy directions within each component including impact evaluation.⁶²⁶

11.2.1 Analysis of Impact Evaluation of the Proposed Policy Directions and Guidelines

Even though there is some variation in the impact level of policy directions and guidelines among case studies, the overall average impact level appeared to be ranging from “▲ moderate” to “■ very strong” impact, which indicates that the proposed policy directions have some potential for application. The policy directions that scored “▲-● moderate to strong” impact and above in overall average among the four case studies represented 17 out of a total of 28 (61%) which are as follows starting from the highest impact level:

⁶²⁵ The policy directions are primarily synthesized from identifying favourable circumstances for brownfield redevelopment that was part of general case study analysis and literature review outlined in Chapter Two.

⁶²⁶ Exhibit 11.3 is a compilation of policy directions for all components and for all empirical case studies that are extracted from Exhibits 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.8, and 10.9.

- *MOE sign-off on SSRA of site remediation approval.* (■ very strong)
- *Community support.* (■ very strong)
- *Having a clear vision and plan for the project.* (●-■ strong to very strong)
- *To develop financial and redevelopment incentives.* (● strong)
- *To arrange for project marketing in the early stages of the process.* (● strong)
- *To develop self-financing mechanism like TIF/TIEF to finance site remediation.* (●)
- *Commitment to planning especially in dealing with large sites.* (● strong)
- *Adopting an integrative planning framework to link major planning sub-processes.* (●)
- *To address environmental contamination and remediation in the beginning.* (▲-●)
- *To define and confine legal liability for contamination.* (▲-● moderate to strong)
- *To reclaim lost urban space through an adaptive reuse & redevelopment.* (▲-●)
- *To achieve responsive environments with a sense of place and community.* (▲-●)
- *To establish public-private partnership for project financing.* (▲-● moderate to strong)
- *To establish public-private-community partnership.* (▲-● moderate to strong)
- *To foster social equity and justice through community participation.* (▲-●)

Given the above outline, there is potential for developing policies for both the public sector and private sector that can foster brownfield redevelopment process. Development of certain policies requires further analysis. Some of the policy directions may be considered as planning guidelines. The rationale for the proposed policy directions and their potential application are outlined in the following section.

In general, the overall average impact level of policy directions for most of the components scored relatively high and the overall planning process scored the highest “● strong” impact”. Also, the overall average impact level for the environmental, economic, and political components, in addition to project implementation and key policy direction (TIF/TIEF) ranked “▲-● moderate to strong” impact. While the overall average impact level for the physical-functional and social components ranked “▲ moderate” impact. These results indicate the importance of policy directions within most of the components and the need to address multiple components in the planning process.

Exhibit 11.3: Proposed Policy Directions & Guidelines by Component & their Impact Level on the Project as Perceived by Key Participants in the Planning Process						
No.	Policy Directions by Component and Planning Sub-process	Impact Level of Policy Directions by Case Study				Impact Level (Tot.Ave.)
		CS-1	CS-2	CS-3	CS-4	
1.	<i>Environmental-Legal Component: Site Remediation Planning</i>					
1.1	To Address Environmental Contamination & Remediation in the Beginning	▲-●	●	▲-●	●	▲-●
1.2	To Define and confine Legal Liability for Contamination	□-▲	●	▲	▲-●	▲-●
1.3	Conditional Lift of Future Liability of Probable Contamination from new Purchasers of already Cleaned-up Sites	▲-●	▲-●	□	▲-●	▲
1.4	Other Policy Direction by Key Participant: MOE Sign-off on SSRA	■				■

	Overall Average Impact of Environmental Policy Directions	▲-●	●	▲	▲-●	▲-●
2.	<i>Physical-Functional Component: Land Use Planning, Urban Design,</i>					
2.1	To Reclaim Lost Urban Space through Adaptive Reuse & Redev. Process	▲-●	□-▲	▲-●	▲	▲-●
2.2	To Achieve Responsive Environments with a Sense of Place & Community	●	▲	▲-●	▲-●	▲-●
2.3	To Prepare an Inventory of Existing Blighted/Contaminated Industrial	●	□-▲	▲	▲	▲
2.4	To Maintain Balance between Heritage Conservation & Urban Innovation in the Context of Urban Transformation	▲-●	▲	▲-●	▲-●	▲
2.5	Other Policy by Key Participant: To Utilize Under-utilized Infrastructure				▲	▲
	Overall Average Impact of Physical-Functional Policy Directions	●	□-▲	▲-●	▲	▲
3.	<i>Economic Component: Financial Planning and Marketing</i>					
3.1	To Arrange for Project Marketing in the Early Stages of the Process	▲	▲	●	●	●
3.2	To Develop Financial and Redevelopment Incentives	▲-●	▲-●	■	●	●
3.3	To Establish Public-Private Partnership for Project Financing	□-▲	●	■	●	▲-●
3.4	To Provide Environmental Liability Insurance to Cap Site Remediation	□	▲-●	■	▲-●	▲-●
	Overall Average Impact of Economic Policy Directions	▲	▲-●	●-■	●	▲-●
4.	<i>Social Component: Social Equity and Safe Community Planning</i>					
4.1	To Foster Social Equity and Justice through Community Participation	□	▲	■	□-▲	▲-●
4.2	To Secure Accessibility of Local Residents to Newly Provided Opportunities	□-▲	▲-●	●	▲	▲
4.3	To Achieve Socially Safe Environment through Community Participation	▲	▲-●	▲	□-▲	▲
	Overall Average Impact of Social Policy Directions	□-▲	▲-●	▲-●	□-▲	▲
5.	<i>Political-Organization Component: Political and Organizational Planning</i>					
5.1	To Develop Special Redevelopment Authority for the Process	○-□	●	▲	▲-●	▲
5.2	To Foster Stakeholders Collaboration and Partnership					
	• Public-Public Partnership	□	●	▲	▲-●	▲
	• Public-Private Partnership	□	●	▲	▲-●	▲
	• Public-Private- Community Partnership	▲	●	▲	▲-●	▲-●
5.3	Other Policy Direction by Key Participant: Community Support				■	■
	Overall Average Impact of Political Policy Directions	□-▲	●	▲	●	▲-●
6.	<i>Project Implementation & Phasing</i>					
6.1	To Address Site Remediation in the Beginning & then Site Redevelopment	●	▲	□-▲	▲	▲
6.2	To Adopt a Gradual Site Remediation & Redevelopment Strategy	●	▲	●	▲	▲-●
	Overall Average Impact of Policy Directions	●	▲	▲	▲	▲-●
7.	<i>Potential Policy: Self-Financing Approach like TIF/TIEF</i>					
7.1	To Develop Self-Financing Mechanism like TIF/TIEF to Finance Cost of Site Remediation	▲	●-■	■	▲-●	●
7.2	After Redevelopment, Future Tax Increments on the Site (& Surrounding Properties) Can Capitalize Initial Site Remediation Cost within a Period of:					
	• Fifteen Years	○	●	■	■	▲-●
	• Twenty Years	-	●-■	▲	●	●
	• More than Twenty Years	-	■	□	■	●
	Overall Average Impact of Policy Directions	□-▲	●	▲-●	●	▲-●
8.	<i>Overall Multiple Component Planning Process</i>					
8.1	Having a Clear Vision and/or Plan for the Project	▲-●	●-■	●-■	●-■	●-■
8.2	Commitment to Planning Especially in Dealing with Large Sites	□-▲	●-■	●-■	●-■	●
8.3	Adopting an Integrative Planning Framework to Link Major Planning Sub-Processes	●	●-■	▲	●	●
	Overall Average Impact of Policy Directions	▲-●	●-■	●	●	●
■ Very Strong - 5 ● Strong - 4 ▲ Moderate - 3 □ Weak - 2 ○ Very Weak - 1						
CS-1: G&W, Toronto; CS-2: Port Centre Development, Toronto; CS-3: Cooksville Quarry, Mississauga; CS-4: WHDS & Bayfront Park, Hamilton						

11.2.2 Rationale & Potential Application of the Proposed Policy Directions

The discussion in this section will be based on empirical case study findings as well as pertinent literature review. Two references will be of primary importance to this discussion including the “*National Brownfield Redevelopment Strategy (NBRIS)*” prepared by NRTEE in 2003 (Exhibit 2.8) and “*State of Canada’s Brownfield Redevelopment Industry*” prepared by OCETA in 2008 as a review of Canada’s progress in response to the NRTEE 2003 NBRIS.⁶²⁷ Comparative evaluation is made with policy recommendations of the NBRIS to identify potential policy directions that are not addressed in the national strategy and that can be considered for application.⁶²⁸ The analysis will follow the same classification of policy directions following the eight research units of analysis as outlined in Exhibit 11.3.

1. Environmental-Legal Component: Site Remediation Planning⁶²⁹

- 1.1 *To Address Environmental Contamination and Remediation in the Beginning* (▲-●)
- 1.2 *To Define and Confine Legal Liability for Contamination* (▲-●)
- 1.3 *Conditional Lift of Future Legal Liability for Already Cleaned Sites* (▲)
- 1.4 *MOE Sign-off on SSRA (Site Specific Risk Assessment Plan)* (■)

1.1 To Address Environmental Contamination and Remediation in the Beginning (▲-●)

This may also be considered as a planning guideline. The main objective is to have a more defined framework for environmental contamination and needed remediation, which provides a better understanding and control over site remediation cost. Not properly addressing and defining environmental contamination and needed site remediation in the beginning will more likely make the perceived liability cost relatively higher than the real cost.⁶³⁰ Developers are more inclined to take the risk of brownfield redevelopment if they have prior knowledge of liability cost of site remediation (Key Participants’ Interviews, 2000).

1.2 To Define and Confine Legal Liability for Contamination (▲-●)

The main objective is first to define who is liable for environmental contamination including site remediation cost, and second to define its limits within the site context as well as for future time limits. One main issue in the case of the G&W project in Toronto was migration of underground water contamination (coal tar) from one property site to another. In addition, record of site

⁶²⁷ The analysis of the National Brownfield Redevelopment Strategy (NRTEE, 2003) and its input into the proposed policy directions is also discussed in Chapter Two, Section 2.2.7.

⁶²⁸ It is important to note that field work of case study analysis including interviews of key participants was performed in 2000. Potential policy directions were developed and used in the interview questionnaire.

⁶²⁹ The proposed policy directions within this component are interrelated and can be grouped together.

⁶³⁰ A good example is the WHDS project in Hamilton, where environmental remediation cost was not addressed in the project cost as well as for the relocation of the CN marshalling yard (Key Participants’ Interviews, 2000).

condition with left in contamination is registered on property title. These issues raise concern to developers, potential buyers, and new tenants which may affect marketability of such redevelopment. The task of the proposed policy direction is to control and limit the negative impacts of mentioned factors in order to relieve potential developers and investors concerns. New legislation may be required to develop and apply this policy.

The proposed policy direction is in a way included in the policy recommendations of the NRTEE-2003 NBRS (Exhibit 2.8, Item 2). The policy recommendation “2.1 Allow Binding Contractual Allocation of Liability” defines legal liability and permits for transferability of liability from original owner to new buyer given certain conditions are met (NRTEE, 2003: 25). Transfer of liability was also added to the CCME “*Recommended Principles on Contaminated Sites Liability*” (CCME, 2006: 11; OCETA, 2008: 12).⁶³¹

1.3 Conditional Lift of Future Legal Liability for Already Cleaned Sites (▲)

The objective is to relieve new purchasers and users from future liability for contamination regarding sites that have gained approval on an implemented site remediation plan. This may affect the nature of wording for record of site condition that may be required on new property title registration. The application of such a policy will attract more potential property buyers/users within brownfield redevelopment project.

The NRTEE-2003 policy recommendations 2.2 and 2.3 (Exhibit 2.8) provide for termination of regulatory and civil liability after regulatory approval of site remediation and after a limitation period. These policy recommendations are in a way similar to the proposed policy direction in terms of lifting or limiting future liability after an approved site remediation process.

1.4 MOE Sign-off on SSRA (Site Specific Risk Assessment Plan) (■)

This policy direction was proposed by a key participant in a case study interview. In case study projects with implemented site remediation plan, the MOE only acknowledged receipt of record of site condition and did not give approval.⁶³² The reasoning for this policy direction is to have MOE share part of the responsibility for accepting and approving the implemented site

⁶³¹ The Canadian Council of Ministers of the Environment (CCME, 2006) had originally thirteen “Recommended Principles on Contaminated Sites Liability” and added “*Principle 14, Transfer of Liability*” which states “*For the purpose of facilitating the appropriate remediation of a site, the regulatory environmental liability associated with a contaminated site may be transferred between parties (e.g. buyer and seller) in accordance with applicable federal, provincial and/or territorial legislation and with full disclosure of all information regarding the site*” .

⁶³² One exception was the case of the Cooksville Quarry project in Mississauga where MOE provided approval on the implemented site remediation plan. The remediation plan was following the older MOE guidelines for site remediation of 1989 instead of the 1997 MOE guidelines that was initiated during the project.

remediation plan. Having a level of shared liability between the approval authority and the developer may create more favourable market conditions for new buyers. This policy direction is also included in the NRTEE-2003 policy recommendation “2.6 *Provide for Regulatory Approvals of Remediation*”. This indicates its relative importance.

2. **Physical-Functional Component: Land Use Planning, Urban Design, etc.:**

- 2.1 *To Reclaim Lost Urban Space through an Adaptive Reuse Strategy (▲-●)*
- 2.2 *To Achieving Responsive Environments with a Sense of Place & Community (▲-●)*
- 2.3 ***To prepare an Inventory of Existing Blighted/Contaminated Industrial Sites (▲)***
- 2.4 *To Maintain a Balance between Heritage Conservation & Urban Innovation in the Context of Urban Transformation (▲)*
- 2.5 *To Utilize Existing Under-utilized Infrastructure (▲)*

Some of these policy directions may be considered as planning guidelines that may be used by the developer and the public approval authority. As in the first component, the policy directions are inter-related. The main objective of these policy directions and guidelines is to transform physical-functional blight into vibrant areas within an urban revitalization context. This requires emphasis on not only the redevelopment of the individual brownfield site but also on its integration with the surrounding community (Howland, 2007; Heberle & Wernstedt, 2006).⁶³³ Being within the inner city, brownfield sites have strategic locations and possibly site and building resources that are rich in built and natural heritage value, as in the cases of Toronto G&W project and Hamilton WHDS. An inventory of brownfield sites may be a useful planning tool when dealing with multiple brownfield sites within certain strategic locations like Toronto Port Industrial District, Hamilton waterfront areas, and inner city areas in general.

A combined policy direction can be derived from the above policy guidelines, mainly ***preparing an inventory of blighted/contaminated industrial sites and reclaiming lost urban space*** within the context of inner city revitalization. This can be the responsibility of the city (or municipality) to prepare such an inventory outlined on a city plan. Unused or underutilized urban space other than blighted industrial sites can also be added to this inventory map. Such inventories can be instrumental in developing a more comprehensive approach for brownfield redevelopment on a multiple project approach. The planning vision should not only focus on individual site redevelopment outcomes but should be focusing more on how to integrate brownfield redevelopment sites with their surrounding communities.

⁶³³ Howland asserts that success involves large-scale planning that integrates site clean-up with wider community development, long-term and substantial government resource commitments, and the importance of design that integrates redevelopment with the existing neighbourhood (Howland, 2007:102).

One main concern about establishing an inventory of brownfield sites is the perception of risk and stigma associated with such sites and the potential impact on real estate markets of surrounding properties (Adams et al, 2010, De Souse, 2008 & 2006; NRTEE, 2003).⁶³⁴ The counter argument is that most of the potential brownfield sites, if not identified and flagged, they are suspected to have contamination based on the nature of the previous functions and history of operation. The perceived liability of contamination will be exaggerated for suspected sites that have undefined contamination. Also having more brownfield redevelopment projects implemented, and with more advances in site remediation technology, the negative perceptions of brownfields are reduced and a more favourable market condition is created. In a comparative study on brownfield redevelopment approaches in North America and Britain, Adams et al (2010: 86) asserts the need for an inventory of brownfield sites as an informative tool in the planning process and outline that:

*“Despite the advantage of local variation and innovation in the brownfield statistics that are kept in North America, lack of political interest and will keep this aspect of brownfield policy at an immature stage since it remains impossible to know whether the problem is getting larger or smaller. This contrasts with the British experience, where the requirement for comprehensive statistics has been driven from the political centre and has ensured that policy makers can now access better information than their predecessors of two decades ago”.*⁶³⁵

In studies on brownfield redevelopment in Canada and the U.S., De Sousa indicates that information about brownfield sites in Canadian cities is sporadic and not as informative as that for U.S. cities (De Sousa, 2006: 393-394; De Sousa, 2002b: 299; De Sousa, 2008: 6).⁶³⁶ In a study on brownfield redevelopment for housing prepared for CMHC, it is also pointed out that *“the lack of easily accessible and understood information on brownfield redevelopment is still a*

⁶³⁴ Adams et al asserts the need for brownfield inventory of brownfield sites as an informative tool in the planning process as it has been the case in Britain (like the National Land Use Database-NLUD); however they outline that in the U.S. and Canada *“most cities and government agencies continue to postpone the development of formal brownfield inventories for fear that properties might be stigmatized and their values reduced, with liabilities ensuing for the agencies involved in compiling them”*(Adams et al, 2010: 86).

⁶³⁵ The National Land Use Database-NLUD was launched in England in 1998 and updated in 2001. A similar database is the Scottish Vacant and Derelict Land Survey (SVDLS). The NLUD database has five information categories including *“previously developed land (PDL) which is now vacant; vacant buildings; derelict land and buildings; land or buildings currently in use and allocated in the local plan and/or having planning permission; and land or buildings currently in use where it is known there is potential for redevelopment (but the sites do not have any plan allocation or planning permission)”* (Adams et al, 2010: 81).

⁶³⁶ A survey questionnaire was sent to 55 major Canadian cities to obtain responses on specific questions and included data collection on number of brownfield sites, their area, and percentage of urban area; however, only 24 cities (46%) sent their responses (De Sousa, 2006). It was mentioned that the City of Toronto had prepared a map outlining areas of potential soil contamination in 1994 which was published without the dataset (De Sousa, 2002b).

barrier to brownfield redevelopment for housing. In some cases, this can lead to brownfield sites being stigmatized” (CMHC, April 2005).

In conclusion, there is a critical information gap regarding the extent area of brownfield sites in Canada in general and its distribution among provinces and cities. Also, there is lack of adequate information regarding the rate of brownfield redevelopment sites completed over time. A policy direction toward establishing and updating an inventory of brownfield sites is an important planning database. Such inventories illustrated on maps and classified by type will highlight geographic information and patterns that can be instrumental for planning policy and planning decision making in general. Such inventories can also be an important tool for evaluating brownfield redevelopment progress and success.

3. Economic Component: Financial Planning and Marketing

3.1 To Arrange for Project Marketing in the Early Stages of the Process (●)

3.2 To Develop Financial and Redevelopment Incentives (●)

3.3 To Establish Public-Private Partnership for Project Financing (▲-●)

3.4 To Provide Environmental Liability Insurance to Cap Site Remediation Cost (▲-●)

3.1 To Arrange for Project Marketing in the Early Stages of the Process (●)

This policy direction may be considered as a planning guideline primarily for developers willing to redevelop a brownfield site as well as for the city (public sector) that is willing to facilitate redevelopment of brownfield sites. Securing developers, investors, builders, and sometimes tenants in the beginning of the process complements the brownfield redevelopment package and increases likelihood of its success.

3.2 To Develop Financial and Redevelopment Incentives (●)

The main reasoning for public intervention and financial support, especially for the initial phase of site remediation, is cost and liability associated with environmental contamination and clean-up process (NRTEE, 2003; CMHC, 2005; De Sousa, 2006 & 2008; Howland, 2007; Adams et al, 2010). In most of the general case studies reviewed in the U.S., Canada and the U.K., stakeholders’ responsibility for the initial phase of site clean-up and preparation was predominantly by the public sector or a form of public-private partnership or through arrangements of public financial incentives (Exhibit 2.9, Chapter Two). Public financial incentives may include grants, low-interest loans, and/or tax credits. A revolving fund for brownfield redevelopment may be established which can provide low-interest loans for developers. Also, public and/or public-private backup funding (like insurance fund) may be

required during critical times like economic recession. Public financial incentives may include different levels of government including the federal, provincial and/or municipal.

The use of public financial incentives in brownfield redevelopment became relatively more available in Canada especially after the issuing of the NRTEE-2003 National B.R. Strategy, which included specific policy recommendations for “*applying strategic public investments to address upfront costs*” (Exhibit 2.8) (NRTEE, 2003; OCETA, 2008).⁶³⁷

3.3 To Establish Public-Private Partnership for Project Financing (site remediation) (▲-●)

The main objective for this policy direction is to have public-private commitment to overcome the initial barriers of site remediation cost and related legal liabilities. The financial incentives mentioned in the previous policy direction (Item 3.2) may represent the public financial contribution in the public-private partnership. Such an agreement may be arranged in advance between the city (and other related public authorities) with the potential project developer. Having a development corporation that is related to the city can provide a better condition for arranging public-private partnership, mobilizing available public financial incentives, as well as possibly having direct responsibility for brownfield site remediation.⁶³⁸

3.4 To Provide Environmental Liability Insurance to Cap Site Remediation Cost (▲-●)

This policy direction is also related to the environmental component. The main objective of environmental liability insurance is a back-up mechanism to cover costs of real and perceived legal liability of contamination beyond a certain limit. It may provide coverage to cap site remediation cost as well as covering potential future legal liabilities that may arise after site remediation is completed. The provision of environmental liability insurance at acceptable terms to developers was crucial in overcoming risks and uncertainties of legal liability and their effect on project financial feasibility (Heberle & Wernstedt, 2006; Meyer & Lyons, 2000: 53; NRTEE & CMHC, 1997: 49).⁶³⁹ Environmental liability insurance may be provided by the public sector, private sector, or public-private partnership.

⁶³⁷ The National B.R. Strategy policy recommendations included tax system to promote brownfield redevelopment, removing liens and tax arrears against qualifying brownfield sites, providing mortgage guarantees, providing revolving loans and grants (Exhibit 2.8) (NRTEE, 2003).

⁶³⁸ TEDCO is one good example, which is responsible for the management and redevelopment of its properties within Toronto Port Industrial District. See Chapter Seven for the case of PCD project and TEDCO is the developer.

⁶³⁹ In a study on brownfield regeneration in the U.S. Heberle & Wernstedt concluded that “*environmental insurance is useful in closing a brownfield redevelopment deal*”; the results of a public sector survey they performed on brownfield projects revealed that “*three quarters of respondents (n=90) indicated that affordable insurance policies that protect developers from third party liability or afford cost cap protection always or almost always would serve as useful brownfield redevelopment incentives*” (Heberle & Wernstedt, 2006: 489-490).

4. Social Component: Social Equity and Safe Community Planning

4.1 *To Foster Social Equity and Social Justice through Community Participation (▲-●)*

4.2 *To Secure Accessibility of Local Residents to Newly Provided Opportunities (▲)*

4.3 *To achieve Socially Safe Environment through Community Participation (▲)*

These policy directions can be viewed as inter-related planning guidelines in the process. The rationale for these policy guidelines is that brownfield sites have negatively impacted local residents and nearby neighbourhoods in terms of social stigma and economic distress associated with such sites, potential exposure to hazardous environments, unsafe environments resulting from vacant or abandoned sites, and in some cases loss of jobs at once operating factories that stopped functioning for a variety of reasons (Howland, 2007: 96-97; Brooks, 2006). Accordingly, accessibility of local residents to newly generated opportunities (like jobs) in brownfield projects is essential as a form of pay back.⁶⁴⁰ One main obstacle is that level of education and expertise of local residents may not match newly generated jobs and in this case job training and presentation skills for local residents may be required to achieve accessibility.⁶⁴¹

5. Political Component: Stakeholders' Organizational Planning & Partnership

5.1 *To Develop Special Redevelopment Authority for the Process (▲)*

5.2 *To Foster Stakeholders Collaboration and Partnership: Public-Public, Public-Private, Public-Private-Community (▲-●)*

5.3 *Community Support (■)*

5.1 To Develop Special Redevelopment Authority for the Process (▲)

The existence of a development corporation (public or quasi public) that is directly responsible for brownfield redevelopment was instrumental in initiating action and in achieving brownfield redevelopment objectives. Private sector developers are more hesitant to take redevelopment initiative by themselves alone given the high risks of uncertain cost and legal liabilities of brownfields (NRTEE, 2003; CMHC, 2005; Adams et al, 2010; Bartsch & Collaton, 1997: 3). Accordingly, public initiative and direct involvement in brownfield redevelopment is essential. TEDCO is a good example that has been responsible for fostering economic development of Toronto Port Lands and was the initiator or partner in the redevelopment of several projects in this area (TEDCO, 1998). In the U.S., almost every major city has its own development authority

⁶⁴⁰ Howland (2007) outlines that “brownfield redevelopments in which new jobs are committed to local residents have evolved out of projects with community participation and public sector involvement” and indicates that linking jobs to local residents is becoming increasingly common and sophisticated.

⁶⁴¹ Howland (2007) outlines the following methods used to link residents to newly created jobs, “1. public sector- or private sector-initiated workforce training to prepare local residents for the new jobs coming on line, 2. training to improve local residents job search and interview skills, 3. financial incentives for businesses to hire local workers, & 4. formal community or government agreements with businesses to hire a proportion of local residents”.

that is responsible for urban revitalization including brownfield redevelopment.⁶⁴² In the U.K., public development corporations also played an important role in brownfield redevelopment.⁶⁴³

The impact evaluation for this policy direction by key participants in the four empirical case studies ranked “▲ Moderate” impact on overall average. Only in one case study (PCD project in Toronto) there was a development corporation (TEDCO) that was responsible for the project. Even though the PCD project was not implemented,⁶⁴⁴ TEDCO managed to sign a long term land lease with Toronto Film Studios Inc. (TFS) to develop Canada’s largest film and media production complex in the Port Lands. Also, the City of Hamilton was considering the possibility of establishing a development corporation to be responsible for urban development including brownfield redevelopment.⁶⁴⁵

The NRTEE-2003 National B.R. Strategy did not include in its policy recommendations a provision for a public (or quasi-public) development corporation. However, the strategy included policy recommendation addressing public involvement to build capacity to undertake brownfield redevelopment projects (NRTEE, 2003, Exhibit 2.8, Item 3.1).

Given the above outline, there is potential in the policy direction for establishing a public (or quasi-public) development corporation especially for major cities in Canada. Public involvement in brownfield site remediation and redevelopment will be more effective with the existence of a development corporation that is directly responsible for redevelopment.

5.2 To Foster Stakeholders Collaboration and Partnership (Public-Public, Public-Private, and Public-Private-Community) (▲-●)

Collaboration and partnership among the various stakeholders may foster common consensus and commitment to achieve stakeholders’ objectives. Stakeholders’ collaboration and partnership may be represented in various aspects of the brownfield redevelopment process including participation in project planning, public meetings and workshops, project funding and finance for

⁶⁴² The Minneapolis Community Development Agency (MCDA) is a good example of a public authority responsible for facilitating the initial stages of brownfield site purchase, site clean-up and environmental remediation, as well as securing private developers and tenants in some cases (Bartsch & Collaton, 1997).

⁶⁴³ The English Partnership (the government’s urban regeneration agency) was responsible for finding and assembling land, especially brownfield and publicly owned land for sustainable development; in addition, they were charged with developing a comprehensive national strategy for brownfield land and allocated over £500 million over three years to find and assemble housing units (Adams et al, 2010: 90).

⁶⁴⁴ The PCD project was not implemented mainly due to conflict in planning vision between the City of Toronto and TEDCO. Also, local small business groups were against the proposed Big Box retail development in this area due to negative impact on their businesses (Key Participants’ Interviews, 2000).

⁶⁴⁵ Follow-up interview with the senior planner at the City of Hamilton on June 15, 2009 regarding the WHDS.

site remediation phase and for site redevelopment, project implementation and phasing, development agreement, and possibly legal liability sharing.

Stakeholders' collaboration and partnerships may be represented within and among the main sectors including the public sector, private sector, non-for-profit organizations, and the local community. The main forms of collaboration and partnership for brownfield redevelopment may include the following:

- Public-Public: like those among different levels of government including federal, provincial/territorial, and municipal levels.
- Public-Private: between different levels of government with private developers and organizations.
- Public-Private-Community: This includes local community residents and groups in addition to the above.

Collaboration and partnership among different levels of government (**Public-Public**) was instrumental in initiating and completing brownfield redevelopment projects like Bayfront Park in Hamilton (MOE-Municipality) (City of Hamilton, 1995), the Lachine Canal Revitalization Program in Montreal (Federal-Provincial-Municipal) (London, 1998: 16), and Revi-Sols Program in Quebec (Provincial-Municipal) (OCETA, 2008: 11).

In the case study projects, the development agreement between the City and the Developer was essentially a form of **Public-Private** partnership as in the case of the G&W project and Cooksville Quarry project. Also, In the Cooksville Quarry project the development approval included a four party indemnification agreement regarding liability for the flyash area including the private developer, Ontario Hydro, the City of Mississauga, and MOE (Key Participants' interviews, 2000).

The development approval process may also be considered as a form of **public-private-community** collaboration and partnership, given the local community is involved in the process whether in public meetings, workshops or in other forms of participation. In the case of the WHDS, a "*Study Team Organization*" was designed with a Steering Committee that controlled the planning process and which included representatives from the public sector, private sector, and local community residents and groups (Exhibit 9.3).

In the U.S. case study of the Industri-plex project in Woburn, Massachusetts that is a superfund site, a unique public-private-community partnership was designed with an independent third party (Custodial Trust) that controlled the redevelopment process and had direct responsibility to the community, private sector "potentially responsible parties" (PRPs)

who were responsible for site remediation, and public sector regulators (City of Woburn and USEPA) (Brooks, 2006: 236).

The NRTEE-2003 National B.R. Strategy included policy recommendations that all levels of government cooperate with the private and non-for-profit sectors to establish a National Brownfield Association to coordinate efforts in this regard (Exhibit 2.8, Item 3.1). In a study prepared for CMHC (2005), and in order to overcome planning barriers, it is recommended that “municipalities act as facilitators and even partners in brownfield redevelopment projects for housing”. Given the above outline, there is potential application for this policy direction.

Community Support is related to the policy of public-private-community collaboration and partnership. Community support was considered by different references as a relatively important factor in brownfield redevelopment (Lange and McNeil, 2004; Howland, 2007).⁶⁴⁶ Also, community support was crucial to the successful implementation of case study projects, especially when there was a critical negative impact of brownfields on surrounding residential communities as in the WHDS project in Hamilton (Key Participants Interviews, 2000) and in the Super Fund project Industri-plex site in Woburn, Massachusetts (Brooks, 2006: 235).⁶⁴⁷

This policy direction highlights the importance of community participation and direct involvement as active stakeholders in the redevelopment process. Also, and in a given context, it is essential to collectively organize the process from the beginning so that community involvement is clearly defined and accepted by stakeholders.

6. Project Implementation and Phasing:

- 6.1 *To Address Site Remediation in the Beginning & then Site Redevelopment (▲)*
- 6.2 *To Adopt Gradual Site Remediation & Redevelopment Strategy (▲-●)*

These policy directions may be considered as guidelines for the planning process. The purpose of the first guideline is to insure addressing site remediation in terms of method, its implied cost and other important linkages in the process. Site remediation and restoration may be considered as a first implementation package in the redevelopment process and may be performed by a

⁶⁴⁶ The results of a survey study on defining successful brownfield redevelopment in the U.S., and as perceived by stakeholders (N=158), revealed that community support ranked first as an important factor among 18 selected factors. In a scale of 1 to 5 scoring from strongly disagree to strongly agree as important variable, 97.4% of stakeholders ranked community support as 4 and 5, which indicates their agreement as a relatively more important factor (Lange & McNeil, 2004: 103).

⁶⁴⁷ Community based redevelopment approach was adopted in the Industri-plex project in Woburn, Massachusetts. There was an adverse impact of ground water contamination on local residents which resulted in law suits. The Custodial Trust (newly formed independent third party entity) that was responsible for site redevelopment and its alliance with the Community was critical to their efforts in securing state and federal support and funding for major new infrastructure projects (Brooks, 2006: 235).

different stakeholder. The second policy direction is important in terms of allowing incremental redevelopment which results in staggering cost of redevelopment over time and allows for generating revenue and achieve the objectives for completed parts of the project.

Phasing of implementation and prioritization is especially important in large site projects. The case of the G&W project in Toronto is a good example of phasing of implementation and prioritization for incremental redevelopment, which allowed for adaptive planning. While in the case of the WHDS project in Hamilton, which was relatively large in scale, there was no clear definition of phasing of implementation and prioritization which made planning control and vision for the project unclear and undefined. This analysis indicates that these policy guidelines are worth considering in the process.

7. Potential Policy of Self-Financing Approach like TIF/TIEF:

7.1 To Develop Self-Financing Mechanism Like TIF/TIEF to Finance Cost of Site Remediation (●)

Having a self financing mechanism like tax increment financing TIF/TIEF can be an important source for covering cost of site remediation, which is the initial obstacle of brownfield redevelopment. This policy direction is based on using the increase in future taxes after redevelopment for the specific site property (and possibly surrounding properties) and for a specified period of time. It is assumed that there will be a significant increase in property values and real estate taxes that will be sufficient to cover site remediation cost for a period of time.⁶⁴⁸

Tax increment financing (TIF) was successfully utilized in some of the U.S. case studies (Schwartz, 1995: 189; Bartsch & Collaton, 1997: 97; De Sousa, 2008: 14). In these cases, the city municipality or its related development authority was directly responsible for applying the TIF program. Also in these cases, the TIF program had the potential for a continuous rolling effect by providing a revolving fund for revitalizing other brownfield sites.

In Canada and due to legal barriers, only few municipalities in Ontario were considering a similar program referred to Tax Increment Equivalent Financing (TIEF) in which future tax increments for a certain number of years were provided as a grant to potential developers.⁶⁴⁹ In this case, the project developer is using the TIF fund for redevelopment. The NRTEE-2003

⁶⁴⁸ The results of a study on two U.S. cities focusing on the effect of brownfield redevelopment (BR) on surrounding property values revealed that such projects not only generate desirable economic outcomes themselves (increased property tax) but also have spillover effects on surrounding properties. According to this Study, BR led to a net increase of 11.4% in nearby housing prices in Milwaukee and 2.7% in Minneapolis (De Sousa et al, 2009).

⁶⁴⁹ MMAH, 2000b: 9. The main barrier for applying a TIF program in Ontario is the Municipal Act, subsection 111(1), which “prohibits municipalities from directly or indirectly assisting any manufacturing business or other industrial or commercial enterprise through the granting of bonuses (bonusing rule)” (MMAH, 2000b: 4).

National B.R. Strategy did not include a specific policy recommendation in this regard; however, policy recommendations were included for the public sector to provide investments including tax credits and other financial incentives to help in covering upfront costs of brownfield redevelopment (Exhibit 2.8, Item 1). After five years since the release of the NRTEE-2003 strategy, some provinces (Ontario and Alberta) took initiatives to allow their municipalities to make use of tax increment financing (TIF) (OCETA, 2008: 7). It appears that the TIF program is still not widely used in the Canadian context and there is potential for wider application.

The TIF policy direction can be fostered if linked with other policy directions like establishing a special public (or quasi-public) redevelopment authority that will be directly responsible for redevelopment. In this case the application of the TIF program will be potentially more effective since it is going to be directly managed by the special redevelopment authority. The redevelopment authority may use the TIF fund for site remediation or to coordinate with private developers to perform site remediation. The TIF program may be in the form of grants or low interest rate loan.

8. Overall Multiple Component Planning Process:

- 8.1 *Having a Clear Vision and Plan for the Project (●-■)*
- 8.2 *Commitment to Planning especially in Dealing with Large Sites (●)*
- 8.3 *Adopting Multiple Component Integrative Planning Framework to Link Major Planning Sub-processes (●)*
- 8.4 *To Develop Multiple Component Evaluation Criteria Indicators*

These may be used as policy guidelines by both the project developer and his team as well as by the public approval authority. *Commitment to planning with a clear vision* is essential especially when considering brownfield redevelopment in the context of its surrounding. Since brownfield redevelopment is more likely going to require official plan amendment and rezoning, the municipality will inevitably have to update the official plan and possibly the zoning by-laws. In addition, and in order to achieve better results for planning approval, the municipality have to develop a clear planning vision for the district plan including the specific project site in order to be the basis for review for redevelopment proposal.⁶⁵⁰

The guideline for *adopting multiple component integrative planning framework* to link major planning sub-processes implies a need for multiple component analysis, synthesis and evaluation, basically multiple component rational decision making process. Another policy

⁶⁵⁰ In the PCD project, conflict of planning vision for the proposed functions between the City of Toronto and TEDCO was the major factor causing project failure. At the time of this project, the City of Toronto did not have an updated planning vision for the Port Industrial District. In the G&W project the City of Toronto updated the pertinent District Plan which worked as the basis for project approval (Key Participants' Interviews, 2000).

direction may be derived from this guideline and that is “*to develop multiple component evaluation framework for the planning process*”. This will include evaluation criteria within the environmental, physical-functional, economic, social, and political components. Also, the problems and policy directions identified in this research (Exhibits 11.2 and 11.3) can be used as the basis for developing multiple component evaluation criteria/indicators. These evaluation criteria/indicators may be used for evaluating proposed alternative redevelopment plans as well as for evaluating level of success for implemented plans. Evaluation criteria for a given brownfield redevelopment project are preferably reviewed and evaluated according to views and preferences of the pertinent stakeholders for the specific project context. Literature review also provides research done on developing multiple component “sustainability”⁶⁵¹ indicators to be used as a framework to evaluate brownfield redevelopment projects (Wedding & Crawford-Brown, 2006; Thornton et al, 2007; Pediatiti et al, 2006). In conclusion, developing an evaluation framework that includes multiple component “sustainability” criteria/indicators can be a useful tool for evaluating brownfield redevelopment projects. The evaluation framework will be subject to multi-stakeholder review and evaluation in a given project context.

Brief Summary of Recommended Policy Directions and Comparison with the NRTEE-2003 National Brownfield Redevelopment Strategy(NBR)

Based on the previous analysis, some of the proposed policy directions in this research are also addressed (directly or indirectly) in the policy recommendations of the NRTEE-2003 *National Brownfield Redevelopment Strategy* - NBR (Exhibit 2.8, Chapter Two).⁶⁵² However, some policy directions are not included (or not directly addressed) in the NBR which can be recommended for potential application. In addition, some of the proposed policy directions may be considered as planning guidelines in the process. Exhibit 11.4 provides an outline of the mentioned classification for the recommended policy directions and planning guidelines as well as outlining those addressed in the NBR. The recommended policy directions for potential development and application include the following:

⁶⁵¹ In a study on developing brownfield sustainability indicator framework, Thornton et al (2007:47) propose a multiple component indicator/evaluation framework. They define sustainable brownfield regeneration as “*the management, rehabilitation and return to beneficial use of brownfields in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations in environmentally sensitive, economically viable, institutionally robust, socially acceptable and balanced way within the particular regional context*”. In essence this definition includes all components addressed in this research including social, economic, environmental, political/institutional, and physical components.

⁶⁵² It is important to note that the proposed policy directions in this research were first developed and used in the questionnaire for key participants’ interviews that were performed in the year 2000.

- *To prepare an inventory of existing blighted/contaminated industrial sites*
- *To establish public-private partnership for project financing*
- *To secure accessibility of local residents to newly generated opportunities (jobs)*
- *To develop special redevelopment authority (public or semi-public) that is directly responsible for the process*
- *To foster stakeholders' collaboration and partnership (public-private-community)*
- *To develop self-financing mechanism like TIF/TIEF to finance site remediation cost*
- *To adopt multiple component integrative planning framework*
- *To develop multiple component evaluation criteria/indicators for evaluating brownfield redevelopment alternatives and implemented projects*

Exhibit 11.4: Proposed Policy Directions with Indication of those addressed in the NRTEE-2003 National Brownfield Redevelopment Strategy (NBRS)				
No	Proposed Policy Direction	Recommended Policy Directions (New)	Recommended Planning Guidelines	Policy Directions Addressed in NRTEE-2003
1.	<i>Environmental-Legal Component: Site Remediation Planning</i>			(Exhibit 2.8, Ch. 2)
1.1	To Address Environmental Contamination & Remediation in the Beginning			x - Item 2
1.2	To Define and confine Legal Liability for			x - Item 2
1.3	Conditional Lift of Future Liability of Probable Contamination from new Purchasers of already			xx - Items 2.2/2.3
1.4	Other Policy by Key Participant: MOE Sign-off on			xx - Item 2.6
2.	<i>Physical-Functional Component: Land Use Planning, Urban Design, etc.</i>			
2.1	To Reclaim Lost Urban Space through an Adaptive Reuse & Redevelopment Process		X	
2.2	To Aim at Achieving Responsive Environments with a Sense of Place & Community		X	
2.3	To Prepare an Inventory of Existing	X		
2.4	To Maintain Balance between Heritage Conservation & Urban Innovation in the Context		X	
2.5	Other Policy by Participant: To Utilize Under-		X	
3.	<i>Economic Component: Financial Planning and Marketing</i>			
3.1	To Arrange for Project Marketing in the beginning		X	
3.2	To Develop Financial and Redevelopment			xx - Item 1
3.3	To Establish Public-Private Partnership for	X		x - Item 3
3.4	To Provide Environmental Liability Insurance to Cap Site Remediation Cost			x - Item 2.4
4.	<i>Social Component: Social Equity and Safe Community Planning</i>			
4.1	To Foster Social Equity and Justice through Community Participation		X	
4.2	Accessibility of Local Residents to Newly Provide	X		
4.3	To Achieve Socially Safe Environment through Community Participation		X	
5.	<i>Political-Organization Component: Stakeholders Organizational Planning &</i>			

5.1	To Develop Special Redevelopment Authority that is Directly Responsible	X								
5.2	To Forster Stakeholders Collaboration and		X							
	• Public-Public Partnership			xx - Items 1,2&3						
	• Public-Private Partnership			x - Item 3						
	• Public-Private- Community Partnership	X		x - Item 3						
5.3	Other Policy by Key Participant: Community			x - Item 3						
6.	<i>Project Implementation & Phasing</i>									
6.1	To Address Site Remediation First & then Site		X							
6.2	To Adopt a Gradual Site Remediation & Redev.		X							
7.	<i>Potential Policy: Self-Financing Approach</i>									
7.1	To Develop Self-Financing Mechanism like TIF/TIEF to Finance Cost of Site Remediation	X		x - Item 1						
8.	<i>Overall Multiple Component Planning</i>									
8.1	Having a Clear Vision and/or Plan for the		X							
8.2	Commitment to Planning Especially in Dealing		X							
8.3	Adopting an Integrative Planning Framework to Link Major Planning Sub-Processes	X								
8.4	To Develop Multiple Component Evaluation	X								
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="text-align: center;">xx</td> <td>Policies Directly Addressed in the NRTEE-2003 NBRS</td> </tr> <tr> <td style="text-align: center;">x</td> <td>Policies Indirectly Addressed in the NRTEE-2003 NBRS</td> </tr> </table>		xx	Policies Directly Addressed in the NRTEE-2003 NBRS	x	Policies Indirectly Addressed in the NRTEE-2003 NBRS	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="text-align: center;">x</td> <td>Recommended Policy Direction for Application</td> </tr> </table>			x	Recommended Policy Direction for Application
xx	Policies Directly Addressed in the NRTEE-2003 NBRS									
x	Policies Indirectly Addressed in the NRTEE-2003 NBRS									
x	Recommended Policy Direction for Application									

Some of the recommended policy directions were indirectly addressed or implied in the recommendations provided by the NBRS (like No. 3.3, 5.2 & 7.1); however, there was no specific statement or indication in the NBRS regarding the mentioned policy directions. The recommended policy directions may be applied individually. However, adopting a key policy direction may trigger collective application of related policy directions as outlined earlier.⁶⁵³

The selected policy directions are recommended for development and application by primarily the public sector (municipality and related public authorities) as well as application by the private sector developer and his consulting team. In general, public-private-community collaboration is needed in the development and application of these policy directions.

11.3 PLANNING FRAMEWORK & CHARACTERISTICS OF THE PLANNING PROCESS

Planning is essentially setting a course of action to solve problems and/or to achieve other pertinent objectives.⁶⁵⁴ In this research, the planning process for brownfield redevelopment includes planning performed by the project developer and his team as well as planning performed by the public approval authority (city, region, and province). The development

⁶⁵³ For example the policy direction of “developing a special redevelopment authority (public or quasi-public) ...” may be linked with “developing self-financing mechanism like TIF/TIEF ...” and with “establishing public-private partnership for project financing”.

⁶⁵⁴ For contextual definition of planning see Section 2.1.1, Chapter Two.

approval process is the organizational and interactive setting among stakeholders' planning processes, primarily between those by the project developer and by the public approval authorities, in addition to involvement of the local community in a public consultation process.

Explicitly or implicitly, the characteristics of the pertinent planning process are a reflection of the pertinent characteristics of the problem context and they are as follows:

1. *Multiple-Component Planning Process Including Sub-processes within each Component*
2. *Interactive Planning Sub-processes Requiring an Integrative Planning Approach*
3. *Planning Process at Multi-level Spatial Contexts (Micro-Macro Spatial Levels)*
4. *Incrementally Adaptive Implementation Planning and Phasing including site remediation and site redevelopment*
5. *Planning in the Context of Multiple Stakeholders with Conflicting Objectives and Vision*
6. *Planning for Heritage Conservation in the Context of Urban Revitalization*
7. *Planning in the Context of Time Framework and Timing*
8. *Planning in the Context of Uncertainty*
9. *Overall Process as Multiple Component Mixed Rationality Integrative Planning with a Comprehensive Vision*

11.3.1 Multiple-Component Planning Process Including Sub-process(es) within each Component

The problem context of planning is a complex setting in terms of multiplicity of interrelated components, elements and issues. The generic consolidated problem components include the environmental-legal, physical-functional, economic, social, and political-organizational components (Exhibit 11.5).⁶⁵⁵ In addition, time and timing is exemplified in case studies as an influential factor in the planning process that needs to be included in the analysis and evaluation both as an individual component as well as in relation to other components.⁶⁵⁶

The multiple components may vary in nature and impact level on the process. Each major component may include sub-components of considerable effect on the process and which may be analyzed and considered as an individual component. There are linkages among components (and sub-components) which are represented in the double-sided arrows in Exhibit 11.5.⁶⁵⁷ In a planning process, the critical factors within all components have to be addressed with emphasis on linkages among components in order to achieve an optimal comprehensive planning package.

⁶⁵⁵ These components formed the main core of research units developed for empirical case study analysis that were outlined in Part Two.

⁶⁵⁶ Time and timing are elusive factors. They have been added during the course of this research and may represent an interrelated component. The time factor was exemplified in various ways like time required for development approval which was relatively long and consequently costly to the developer. A good example of the timing factor was in prioritization of redevelopment phases and timing/sequence of incremental site redevelopment.

⁶⁵⁷ Some of the major linkages between problem components are discussed in the following section.

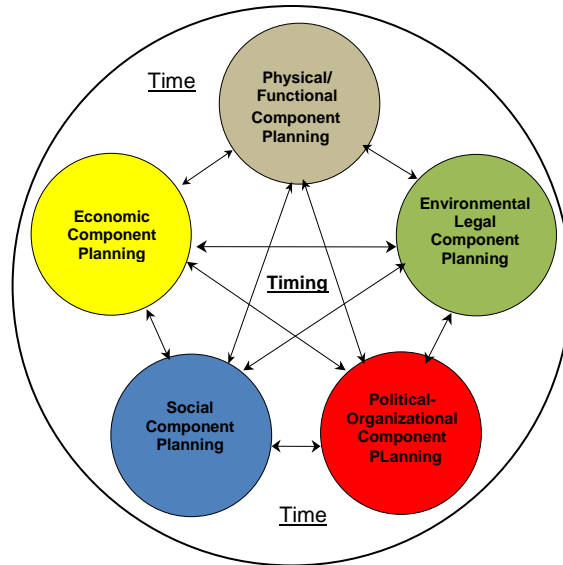


Exhibit 11.5: Multiple Component Problem Context
Reference Exhibit 2.5, Chapter Two

Given a multiple component problem context, the overall planning process can be conceived as a composite of planning sub-processes to address the pertinent problems and objectives within each component. These may be consolidated in the following main planning sub-processes and as they relate to their pertinent problem components:

- *Environmental-Legal Planning Sub-process(es)*: mainly site remediation planning.
- *Physical-Functional Planning Sub-process(es)*: Land use planning, urban design, etc.
- *Economic Planning Sub-process(es)*: Financial and marketing planning.
- *Social Planning Sub-process(es)*: Like social equity & safe community planning.
- *Political-Organizational Planning Sub-process(es)*: Stakeholders' organizational planning and partnership, development approval process.

Each of these consolidated planning sub-processes responds to the problem context of its respective component and accordingly the multiple planning sub-processes may also be envisioned as the components in Exhibit 11.5. Each planning sub-process(es) has an inherent primary focus and specialization on the pertinent problems and objectives of the respective component; and consequently the resulting plan will primarily reflect those characteristic features of the respective component. However, each planning sub-process is also addressing the main linkages to other components.⁶⁵⁸ In addition, each of the above planning sub-processes may include other significant sub-processes that need to be considered individually in a given

⁶⁵⁸ For example, the physical-functional planning sub-process(es) (like land use planning and urban design) primarily focuses on the physical and functional setting and at the same time the main linkages to the environmental, social, economic and political components are also addressed. The same thing is applicable to other components.

context.⁶⁵⁹ Each planning sub-process may be seen as an interrelated planning layer and all together they constitute the overall planning process.

As outlined earlier, the existing pattern of the planning process for brownfield redevelopment is polarized in two main poles including planning by the developer and his consulting team and planning by the public sector approval authority, in addition to involvement of local residents in a public consultation process. The findings of empirical research indicate that planning by the developer is mainly triggered by the economic component, basically developer's primary objective of economic growth and financial profit.⁶⁶⁰ While planning by the public approval authority is primarily focused on achieving physical and functional objectives as exemplified by requirements of the official land use plan and zoning by-laws.⁶⁶¹ In addition, the findings of literature review regarding the evolution of planning theory and paradigms reveal mainstream planning that is primarily focused on physical and economic objectives.

As proposed in this research, it is important to note that none of the multiple problem components and pertinent planning sub-processes may be considered in advance as the dominant one or a representative for the overall planning process. However, contextual evaluation of a given problem context may reveal linkages and relative values and importance of the different components. Ultimately, the overall planning process is a form of synthesis of all planning sub-processes that have to be developed individually and collectively.

The Environmental-Legal Planning Sub-process primarily focuses on resolving the problem of site contamination and required site remediation.⁶⁶² Due to legal liabilities of contamination, there is a special environmental approval sub-process to be in compliance with requirements of MOE and the City public health department.⁶⁶³ The environmental planning sub-process is primarily performed by the environmental consultant working for the project

⁶⁵⁹ The physical-functional component appears to be relatively large and central to the overall process. This component may include significant sub-components like heritage conservation and transportation systems that can be addressed as separate or sub-components due to their relative significance.

⁶⁶⁰ This is applicable to the private developer as in the cases of the G&W project in Toronto and Cooksville Quarry project in Mississauga as well as to the quasi-public project developer TEDCO in the case of Port Centre Development in Toronto with a declared mandate for economic development and growth.

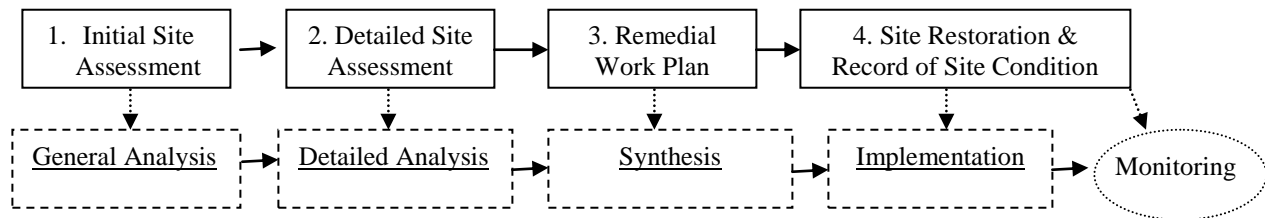
⁶⁶¹ Environmental objectives (like site remediation) are also included in the process. However, the economic component has a strong influence as in accepting a trade-off for a cost-effective site specific risk assessment and management (SSRA) approach for site remediation.

⁶⁶² In addition to site remediation, the environmental component included other issues and objectives like open space and park planning, flood protection, solar and noise studies in relation to specific problems in a given project like G&W in Toronto. These issues were part of the overall planning approval process

⁶⁶³ In the Toronto case studies, the City Environmental Health Officer was directly involved in the environmental approval process, in addition to MOE. The problem of site contamination and needed site remediation fell under the requirements of Ontario EPA and Protection and Health Promotion Act (Key Participants' Interviews, 2000).

developer in coordination with the City and MOE as part of the environmental approval sub-process, which is an important integral part of the overall planning approval process.

In the case studies, the environmental site remediation sub-process was set-up following MOE “*Guidelines for Use at Contaminated Sites in Ontario*” (1989 or 1996-1997) and Section 46 of the EPA for landfill sites. In most of the cases, the process was primarily based on Site Specific Risk Assessment Approach (SSRA) and included the following stages:⁶⁶⁴



Site Specific Risk Assessment Process (MOE, February 1997)

The stages of the environmental site assessment and remediation literally included all the main stages of the rational decision making process, namely *Analysis*, *Synthesis* and *Implementation*. Plan evaluation was partly performed by the City and MOE as part of the environmental approval process in addition to the evaluation by the developer’s environmental consultant. In all implemented case studies, the process included future monitoring for remaining contaminants which was an inherent characteristic of the SSRA approach.

Physical-Functional Planning Sub-process included various multi-level planning and design processes like land use planning, subdivision planning, urban design, architectural and landscape design. In some cases, the sub-process included heritage conservation planning including adaptive reuse of heritage buildings as in the case of the G&W project in Toronto. The physical-functional planning sub-process was a major component of the overall planning process since it was extensive in scale, included multiple sub-components, and represented at multiple spatial levels.

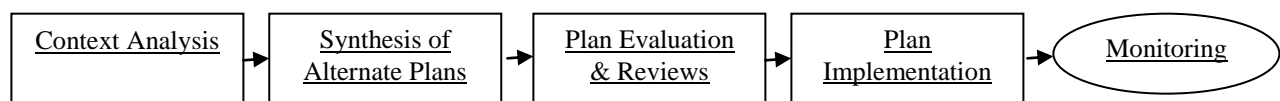
The physical-functional planning sub-process for the project site was primarily performed by the developer’s team. However, the City approval authority was also performing physical-functional planning in terms of preparing and updating the Official Plan and District Plan that covered the project site as well as preparing urban design guidelines. Physical-functional planning represents the main core of the current redevelopment approval process. In all case

⁶⁶⁴ The SSRA approach is based on risk assessment resulting from contamination and risk management for both human health and ecological systems. Some of the contaminants will remain in the environment provided that a risk management plan is in place (MOE, February 1997, *Guidelines for Use at Contaminated Sites in Ontario*).

studies, the redevelopment implied Official Plan amendment and rezoning, which resulted in updating the District Plan by the City concurrently with the developer's preparation for the project plan. In any case, it was important for the City to establish their planning and urban design vision for the area of the project in order to allow for proper approval for the proposed redevelopment. This condition resulted in a positive interactive planning process between the City and the developer's team.⁶⁶⁵

The physical-functional planning sub-processes included a form of master planning at the overall site level and in relation to the surrounding context (Macro-level), as well as planning and design at the specific site subdivision (Micro-level).⁶⁶⁶ The master plan level included land use planning and urban design guidelines. While architectural design, site planning and urban design was applied at the site subdivision level. In essence, land use planning, urban design, and architectural design represented an interrelated hierarchy in terms of spatial planning and design.

In general, the physical-functional planning sub-process was following the rational decision making model. The planning sub-process included context analysis of the physical-functional component as a central part of the process, as well as addressing linkages to other related components. It was important for better results and project success to include alternative plans for evaluation.⁶⁶⁷ Evaluation was performed in various forms including evaluation by the planning team, plan evaluation and review by the City approval authority, as well as reviews of project plans in the form of workshops and public meetings where local residents had the opportunity to express their opinion. In essence, the public approval process was a form of an overall evaluation for the redevelopment process. Implementation was performed by the developer and builders. The planning decision making process can be briefly outlined as follows:



Physical-Functional Planning - Rational Decision Making Process

The ***Economic Planning Sub-process*** included project financing and marketing. The project financial and market feasibility studies were primarily performed by the developer. The

⁶⁶⁵ In both successful cases of the G&W project and Cooksville Quarry, the City prepared further studies for updating the District/Secondary Plan that included the projects' sites (Key Participants' Interviews, 2000).

⁶⁶⁶ In the successful cases of the G&W project and Cooksville Quarry project, the application of flexible and adaptive macro-level planning in addition to micro-level planning, which contributed to their success.

⁶⁶⁷ In the case of the WHDS, the City of Hamilton did not include alternatives for the physical urban design concept plan for redevelopment. The physical plan was perceived by local residents as a blue print urban renewal type project that would imply removal of existing residential buildings. The local community opposed the proposed plan.

main objective was to insure financial return on investment (profit) as well as market demand for the proposed functions. The primary project developer may include a secondary developer or investor who will also be responsible for financing and marketing their designated part of the project.⁶⁶⁸ In some cases, and in addition to the above, the City did market studies to insure existing demand for the type, size and location of certain proposed functions (like commercial and industrial).⁶⁶⁹ In general, the City (as approval authority) did not perform public financial feasibility for the project. However, in the case of the WHDS project the City was initiating the project and had prepared an economic impact study in terms of estimated project cost as well as projected new tax revenues and generated job opportunities. Sources of funding were mainly private financial institutions, especially for relatively larger projects.⁶⁷⁰ As conveyed by key participants in the empirical case studies, tax increment financing (TIF/TIEF) could be a potential self-financing approach to cover site remediation cost (Exhibit 11.3). Having clear financial and market feasibility studies for the project in advance represented an important base for potential success or failure of the project.⁶⁷¹ In addition to financial feasibility that is performed by the developer, a public feasibility framework is needed to assess project costs and benefits in monetary and non monetary terms. This will help in evaluating the potential for generated public benefits in terms of increased property values and related taxes in addition to jobs. This in turn will help in channeling potential resource generation and utilize them in brownfield redevelopment as in a tax increment financing program.

The *Social Planning Sub-process* was not clearly defined in the planning process whether by the City approval authority or by the project developer. However, case study projects, and as part of development approval requirements, included the achievement of social objectives like affordable housing, heritage conservation, and provision of public functions and

⁶⁶⁸ In the G&W project in Toronto, there was a secondary developer (Options for Homes) that was responsible for coop/social housing. Also, in the Cooksville Quarry project, there were investors and builders who were responsible for certain subdivided areas in the community subdivision plan (Key Participants' Interviews, 2000).

⁶⁶⁹ In the Cooksville Quarry project, the City of Mississauga prepared market studies for the neighborhood commercial centre, which were in a way part of the City approval process (Key Participants' Interviews, 2000).

⁶⁷⁰ In the WHDS project in Hamilton, the City financed site remediation of Bayfront Park (in partnership with MOE) and Harbourfront Trail which were relatively smaller parts of the project. However, for the other project areas, the City was targeting national and international developers (Key Participants' Interviews, 2000).

⁶⁷¹ One of the reasons for failure of the WHDS project was lack of preliminary financial and market feasibility studies for at least a phase in the project. The WHDS included cost estimates of certain functions in the project including the cost of relocating the CN Marshalling yard; however, the Study did not provide financial return feasibility for redevelopment which could be a useful tool for marketing. After preparing the Vision Plan, the City of Hamilton was attempting to attract local and international developers but was not successful. Such marketing was better done in advance and possibly to include the developers in the preparation of the vision concept plan.

amenities including public parks and open spaces.⁶⁷² The projects also included achievement of socio-economic objectives like job generation and increased tax revenues. Social planning may also include safe community planning and social equity planning in terms of accessibility of local residents to newly generated opportunities. In general, and according to key participants in the process, there was no indication of major social safety or social in-equity issues being experienced in the empirical case study projects.⁶⁷³ However, literature in the U.S. context indicates that social equity and safety issues are important factors to consider in brownfield redevelopment because such areas typically lie in economically disadvantaged neighbourhoods of older urban areas (Heberle & Wernstedt, 2006: 485; Howland 2007: 96). Anyway, there were some negative social impacts and stigma that raised concern. Perceived negative social impacts in a given project usually resulted in opposition from local residents and public interest advocates including the City, which may contribute to project failure if not resolved.⁶⁷⁴ In general, most of the social goals and objectives were set by the public sector approval authority, which the project developer had to fulfill as part of the development approval process. In essence, it is the public sector that is primarily performing basic social planning and setting social objectives and other requirements to be achieved as part of the redevelopment approval process. Given the potential for social problems and preference for social objectives, the social planning sub-process has to be clearly defined and implemented in its holistic form rather than merely achieving certain social objectives. The City is the best initiator for establishing the social planning sub-process as part of the development approval process.

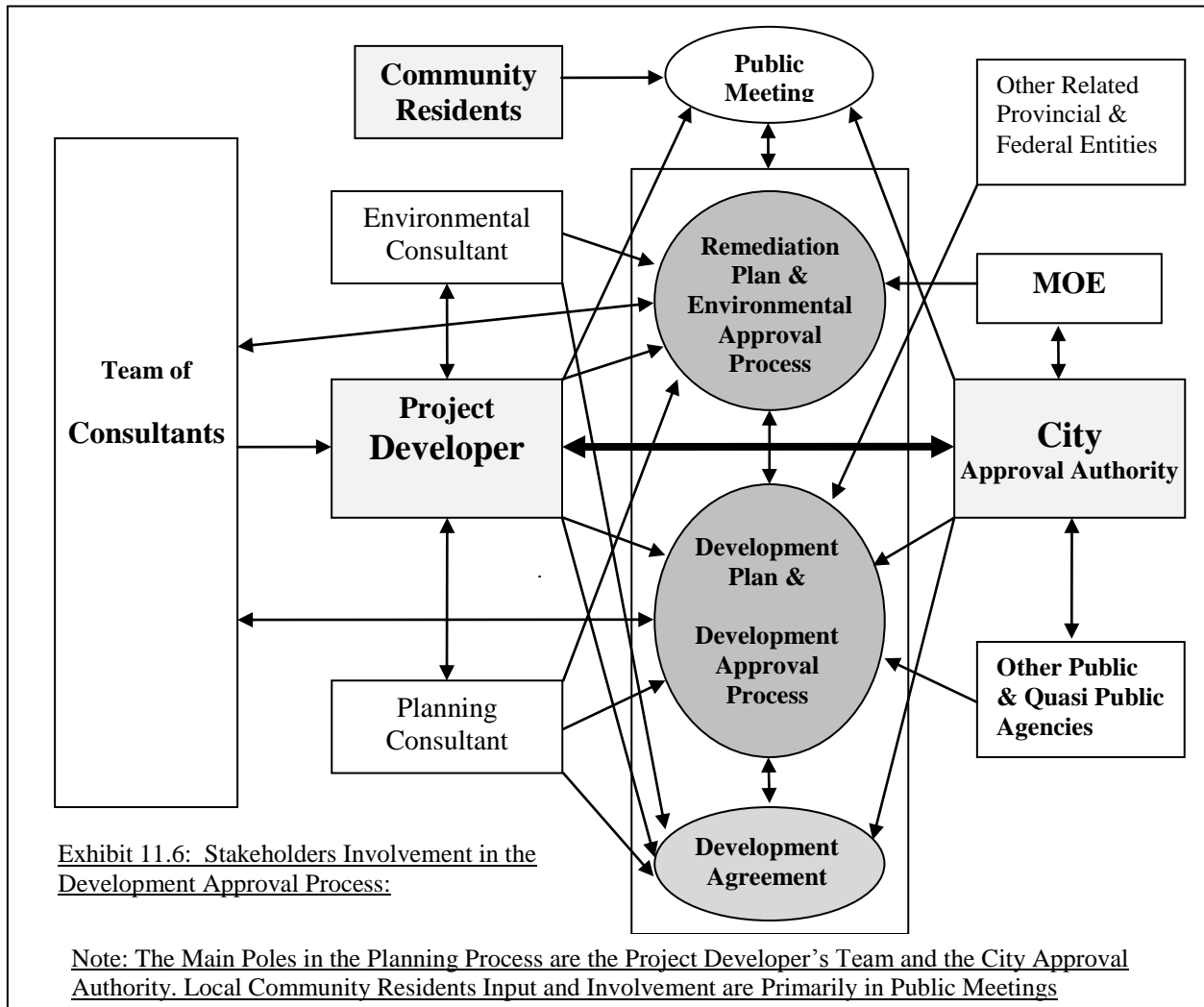
In general, the **Political-Organizational Planning Sub-process** was not discrete. The development approval process was the organizational set-up for stakeholders and the planning decision making process. This included environmental approval as part of the overall site

⁶⁷² As part of City requirement in the G&W project in Toronto and Cooksville Quarry project in Mississauga, the respective project developers were required to provide a minimum of 25% of total residential units as social/affordable housing. Social planning for this provision had been previously performed by the public sector and the end objective of 25% provision was linked as a requirement to the pertinent case study projects.

⁶⁷³ In the case of the G&W project, a minor safety issue was expressed by local residents during night time when the project site and residential buildings were not completed and occupied. However, this issue was resolved after project completion and occupancy (Key Participants' Interviews, 2000).

⁶⁷⁴ In the case of WHDS in Hamilton, the proposed concept plan implied displacement of some of the existing houses that had heritage value. This issue raised social concern and there was strong opposition from local residents against the project. This was an unresolved matter in this project, which was not implemented as a whole. Only the West Harbourfront Trail and Bayfront Park were implemented. These were socially acceptable for their positive environmental and social impacts. In the G&W project in Toronto, there was conflict between the developer and the heritage community regarding level of heritage conservation and impact of new building height/density on heritage value, which was later resolved at the OMB (Key Participants' Interviews, 2000).

redevelopment approval process. The planning process included multiple stakeholders represented by the public sector approval authorities, project developer (public or private) and his consulting team, in addition to local residents and interest groups (Exhibit 11.6).



In the case of the WHDS in Hamilton, an organizational framework for the project study team was set up by the City of Hamilton and the Steering Committee included main stakeholders from the public sector, private sector and local community residents (Exhibit 9.3, Chapter Nine). This organizational set-up was unique among case study projects and it was a very good example of stakeholders’ collaboration and partnership which could potentially resolve conflicting views and objectives, provided that the set-up would be sustained throughout the process.⁶⁷⁵

⁶⁷⁵ The Study Team Organization for stakeholders’ collaboration did not continue to the implementation stage and marketing the project to potential developers. Also, City of Hamilton controlled final decisions on the proposed final vision plan for the WHDS project (Key Participants’ Interviews, 2000).

All successful projects included one form or more of stakeholders' collaboration and partnership.⁶⁷⁶ In general, successful projects were concluded with a development agreement between the City and the developer, which was in a way one form of partnership. The development agreement included all required items by the City that the developer had to fulfill as well as City provisions and allowances like added density and heritage requirements as in the case of the G&W project in Toronto.⁶⁷⁷ In the implemented case studies, stakeholders' conflicts were resolved in the normal course of the development approval process with the exception of two issues that were resolved through an OMB hearing.⁶⁷⁸

It is essential to consider, as part of the redevelopment approval process, stakeholders' organizational set-up that includes public-private-community collaboration and partnership with balanced leverage for decision making power. In the current condition, the decision making power is polarized at the two primary poles including the project developer/owner and the public approval authority. Community residents and interest groups are only involved in public consultation meetings and workshops but with limited or no decision making power.⁶⁷⁹ This condition is in a way emerging from the context of a capitalist democracy that characterizes the Canadian (and U.S.) constitution. However, new planning legislation may foster community involvement in the planning process and possibly provide them with decision making leverage.

11.3.2 Interactive Planning Sub-processes Requiring an Integrative Planning Approach

The multiple planning sub-processes outlined in the previous section are interactive in nature and each sub-process may affect the resulting outcome of the overall planning process. The inter-relationship between the environmental approval process for site remediation and the overall site redevelopment process is a very good example of this interactive setting.

⁶⁷⁶ In the successful cases of G&W in Toronto and Cooksville Quarry Site in Mississauga, there were Public-Public, Public-Private, and Public-Private-Community collaboration and partnerships. The local community was primarily involved in public meetings and workshops. On the other hand, the projects that lacked collaboration between the developer and City were not successful as in the PCD project. In this case the conflict of vision for the project and the Port Area as a whole was not resolved which led to project failure (Key Participants' Interviews, 2000).

⁶⁷⁷ This included indemnification agreement(s) for contamination whereby responsible parties and the developer had to indemnify the City and the Province from future liability of contamination. The development agreements also included the pertinent heritage easement agreements and other requirements.

⁶⁷⁸ The OMB cases were in the G&W project in Toronto regarding the impact of new development on heritage value as well as in the Cooksville Quarry project in Mississauga regarding the impact of building height on surrounding residential communities (Key Participants' Interviews, 2000).

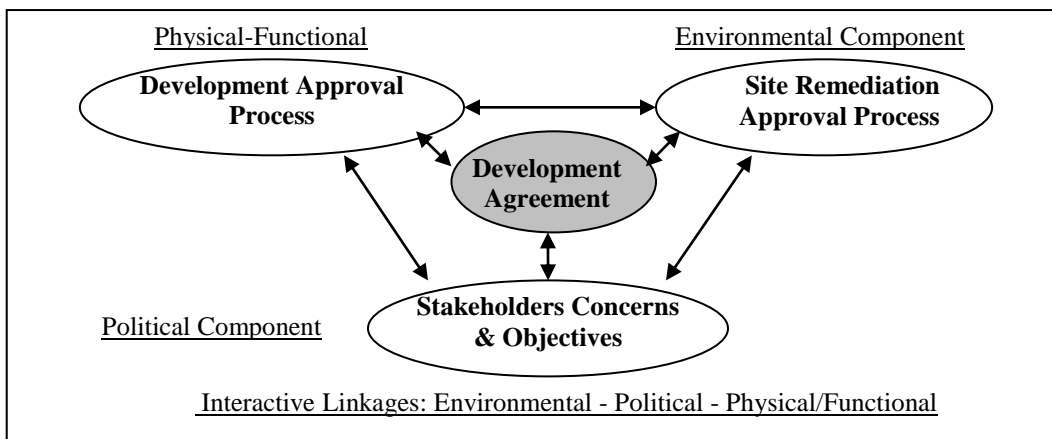
⁶⁷⁹ Responses from key participants in the case study interviews (like WHDS in Hamilton) indicate that local residents still perceive the process as top-down and they felt they were only invited to the community meeting rather than being a participant in the decision making process.

The specific factors that form the interactive linkages between planning sub-processes may vary from one project to another. The interactive linkages may occur between factors within a single component (intra-component linkages) like level of environmental contamination, site remediation criteria and approach in addition to implied legal liabilities (Environmental-Environmental-Legal). Also interactive linkages may occur between factors within different components (inter-component linkages) like proposed land use functions, site remediation criteria and approach, and cost of site remediation (Physical-Environmental-Economic). In a given project context, the interactive linkages represent the skeletal dynamic structure that needs to be identified and used as the basis for defining the multiple component problem context and consequently for designing the planning courses of action within components as well as the construct for the overall planning process.

The following is a brief outline of some of the main linkages among components in the redevelopment planning process, which is based on the synthesis of findings of Part One literature review as well as findings of empirical case study analysis outlined in Part Two.⁶⁸⁰

1. Environmental-Political-Physical Interactive Linkages

The environmental remediation approval process was intertwined with the physical redevelopment approval process. Redevelopment approval is contingent on approval of environmental site remediation plan and implementation. Stakeholders' concerns and conflicts of opinion was usually the case regarding level of site remediation and potential threats of remaining contamination within the environment, even though controlled and future monitoring was part of the plan (like flyash area in the Cooksville Quarry project).

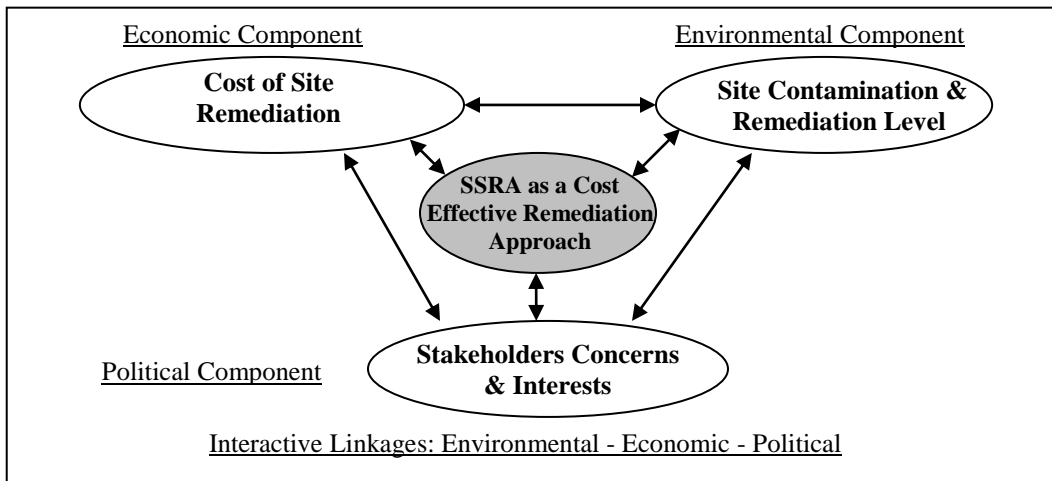


⁶⁸⁰ See Section Four of Chapters Six through Nine for more details about contextual linkages among components and as exemplified in the empirical case studies.

The approval process usually included a development agreement between the project developer and the City to secure implementation of the approved site remediation plan. In the implemented case studies, the development agreement also included indemnification for the City and the Province from future liability of environmental contamination.

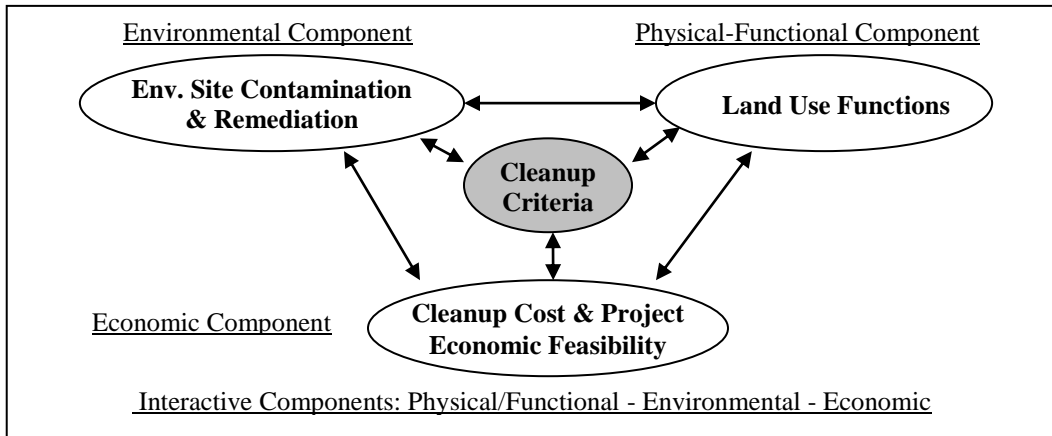
2. Environmental - Economic - Political Interactive Linkages

The main unique element that characterizes brownfield redevelopment is site contamination and pertinent legal liabilities that imply responsibility for the cost of site remediation. The cost of site remediation process may affect project economic feasibility and hence potential developers are not attracted to brownfield redevelopment. This led public sector regulatory authorities to develop cost effective site remediation approaches like Site Specific Risk Assessment (SSRA) approach as an incentive for brownfield redevelopment. The SSRA approach was applied in all empirical case studies and implied leaving part of the contaminants within the site and providing risk mitigation control measures. However, this issue raised concern among some of the stakeholders, mainly local residents and environmental interest groups.



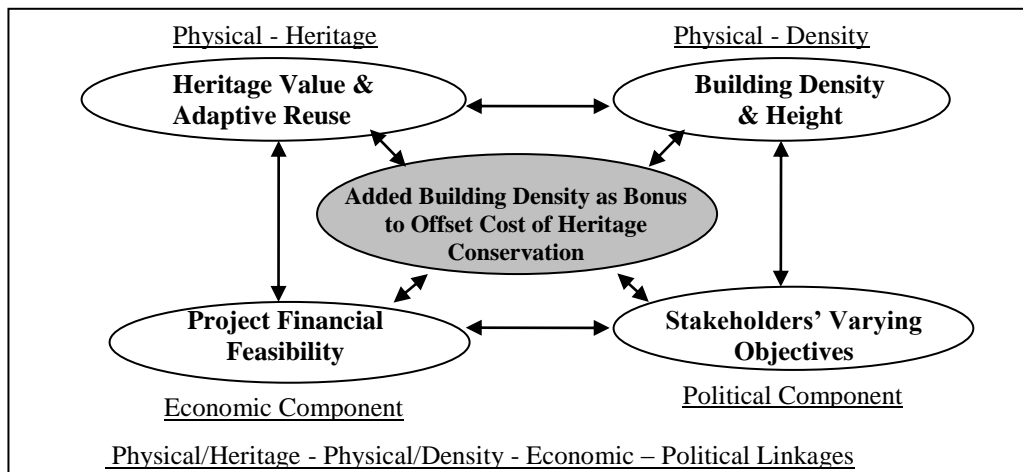
3. Physical/Functional – Environmental - Economic Interactive Linkages

Level of environmental site clean-up criteria varies according to the proposed land use functions and consequently will result in different site remediation cost and project feasibility for each type of land use function. Site remediation criteria for proposed residential land use functions are the most stringent and imply higher cost as compared to commercial and industrial functions.



4. Physical/Heritage - Physical/Density – Economic – Political Interactive Linkages

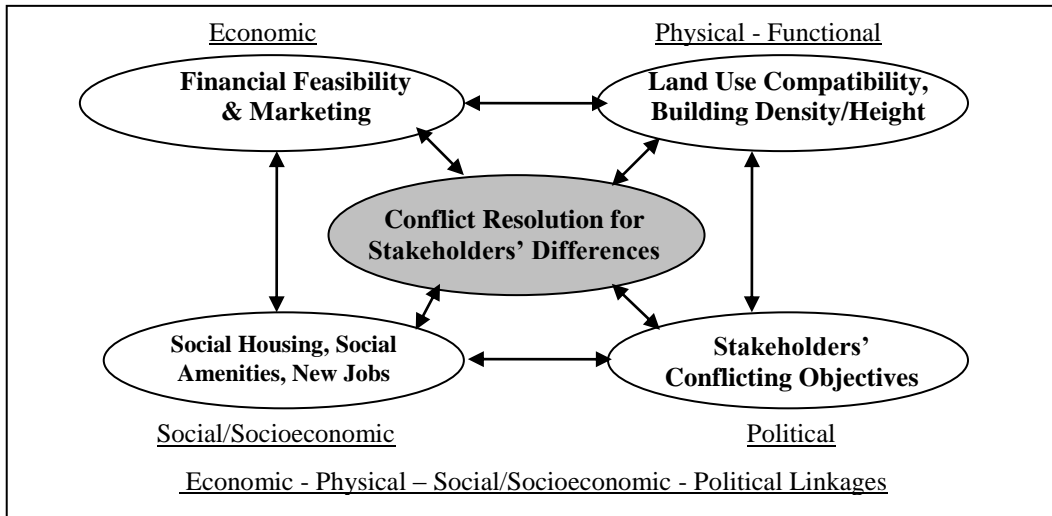
In general, the public sector as well as local residents and heritage interest groups are primary advocates for conserving local heritage. Adaptive reuse of heritage buildings and sites is a major form of heritage conservation which is a relatively costly process and may affect project financial feasibility. The main conflict will be who is responsible for paying this cost. A private developer, seeking profit, is less likely to accept paying the cost of heritage conservation unless it is within financially feasible range for the project. One approach to resolve this problem was to balance heritage conservation and economic feasibility by providing incentives for the developer, like in the form of added building density/height in exchange for paying the cost of required heritage conservation.⁶⁸¹ The added building density may still be opposed by heritage groups which is another problem that has to be addressed and resolved.



⁶⁸¹ This approach was applied in the G&W project. To reconcile the conflict between developer’s financial feasibility and the objective of heritage conservation, the City of Toronto offered increased building density as a bonus for the developer in return to accepting a level of heritage conservation (Key Participants’ Interviews, 2000).

5. Economic-Physical-Social/Socioeconomic-Political Interactive Linkages

Stakeholders’ conflicting opinion and objectives may relate to the proposed land use functions, provision of social objectives, and project economic feasibility and marketability. All redevelopment projects include a group of social and socio-economic objectives like provision of social housing and other social functions and amenities, job generation and accessibility to local residents, etc. Provisions for social objectives imply cost that may affect project feasibility. Some of the social objectives may be required as part of the development approval process like provision of social housing in certain case projects. In order to achieve such social objectives, some form of bonus or compensation for the developer may be required to balance added cost and project financial feasibility.



Need for an Integrative Planning Framework and Approach

Given the multiple component problem context and interactive nature among components and pertinent planning sub-processes (Exhibit 11.5), a multiple component integrative planning framework is needed to address the planning sub-process for each component as well as addressing the major linkages among components. The overall planning process may be envisioned to be manifested at two interrelated and interactive levels including the individual component micro-level (which includes several planning sub-processes outlined in Section 11.3.1) as well as the overall collective multiple component macro-level. In other words, the overall multiple component planning process is the synthesis of all planning sub-processes within the environmental, physical-functional, economic, social, and political components. In order to mature the planning outcome at any component level or the overall multiple component level, re-iteration is required between planning at the micro- and macro-levels.

In general, application of a multiple component integrative planning approach is realistically easier to apply within the planning context of the public approval authority than within the planning context of the project developer. The City approval authority may generate the requirements for a development approval process based on applying a multiple component planning sub-processes, which the project developer has to comply with. Since each planning component or sub-process represents specialized discipline (or related disciplines), it is important that each planning sub-process is primarily performed by a planner (or planners) within the specialized discipline(s).

Successful case studies like the G&W project in Toronto and Cooksville Quarry project in Mississauga included a good level of addressing multiple component planning as well as integration among different components and their respective planning sub-processes with relatively less prior bias toward a particular component. Also, there was a good level of stakeholders' collaboration and involvement in decision making, as well as resolving stakeholders conflicting objectives.

11.3.3 Planning Process at Multi-level Spatial Contexts (Micro-Macro Spatial Levels)

The overall redevelopment planning process is represented at multiple interrelated spatial levels, mainly the macro-spatial level considering the overall site and the micro-spatial level considering the specific site subdivision. The process may include intermediate level planning in a case of relatively large subdivision.

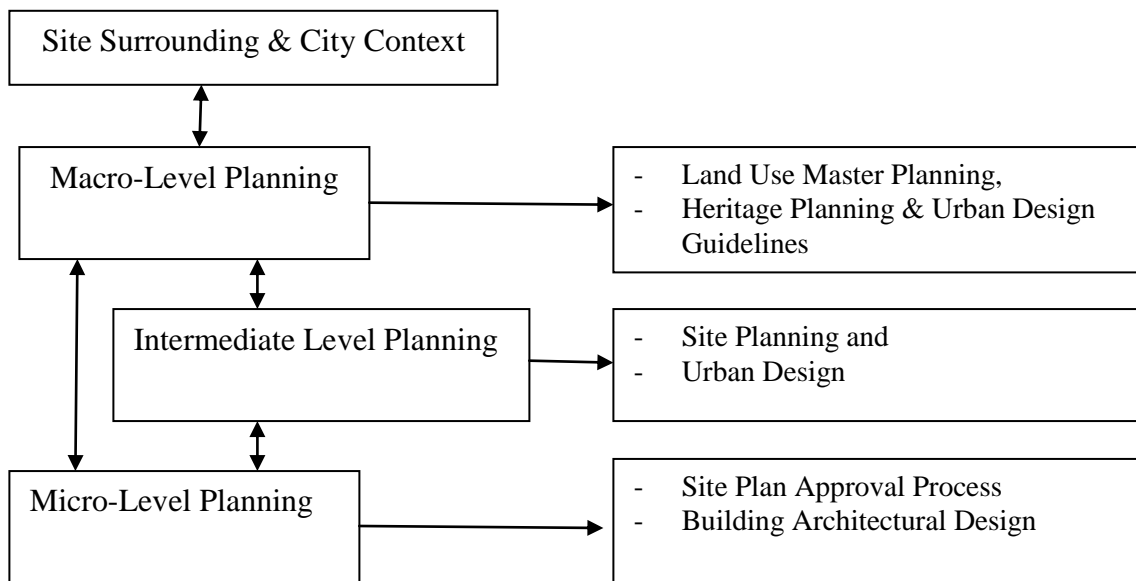
1. Macro-Level Planning: This includes the overall site and it is usually represented in the form of land use master planning and site subdivision into smaller individual sites/parcels. This level may also include other master plans like landscaping and open space, and heritage master plan as in the case of the G&W project in Toronto. In addition, this level includes urban design guidelines. The site master plan is interrelated to the site subdivisions as well as to the surrounding context. The site boundaries represent an important interface with the surrounding communities. Planning at this level should be considered as a flexible guide for micro-level site subdivision planning that may adapt to requirements and changes at micro-level planning.⁶⁸²

2. Intermediate Level Planning: This level of planning is usually needed in cases of relatively large subdivisions within the overall site. This level includes more specific urban

⁶⁸² The successful case of the G&W project in Toronto included flexible master development plan that is subject to amendments that may emerge from the incremental redevelopment of site subdivisions. This condition was stipulated in the development agreement between the City of Toronto and the developer (City of Toronto, 1994).

design guidelines in terms of physical form and function for the subdivision/parcel but this may not necessarily include the individual building design.⁶⁸³

3. Micro-Level Planning: This includes the site planning and architectural design for the specific building sites within a subdivision. This level or the intermediate level may represent the basis for a formal site plan approval process.⁶⁸⁴



Spatial Levels & Representation for the Redevelopment Planning Process

11.3.4 Implementation Planning & Phasing (Site Remediation & Site Redevelopment)

The site redevelopment process for brownfields can be briefly divided into two main packages or phases including site remediation-restoration and then site redevelopment (Exhibit 11.7). The first package (or phase) includes site acquisition by the potential developer. The second package includes redevelopment marketing and partnership with other developers, builders, or investors for specific sites within the project.⁶⁸⁵

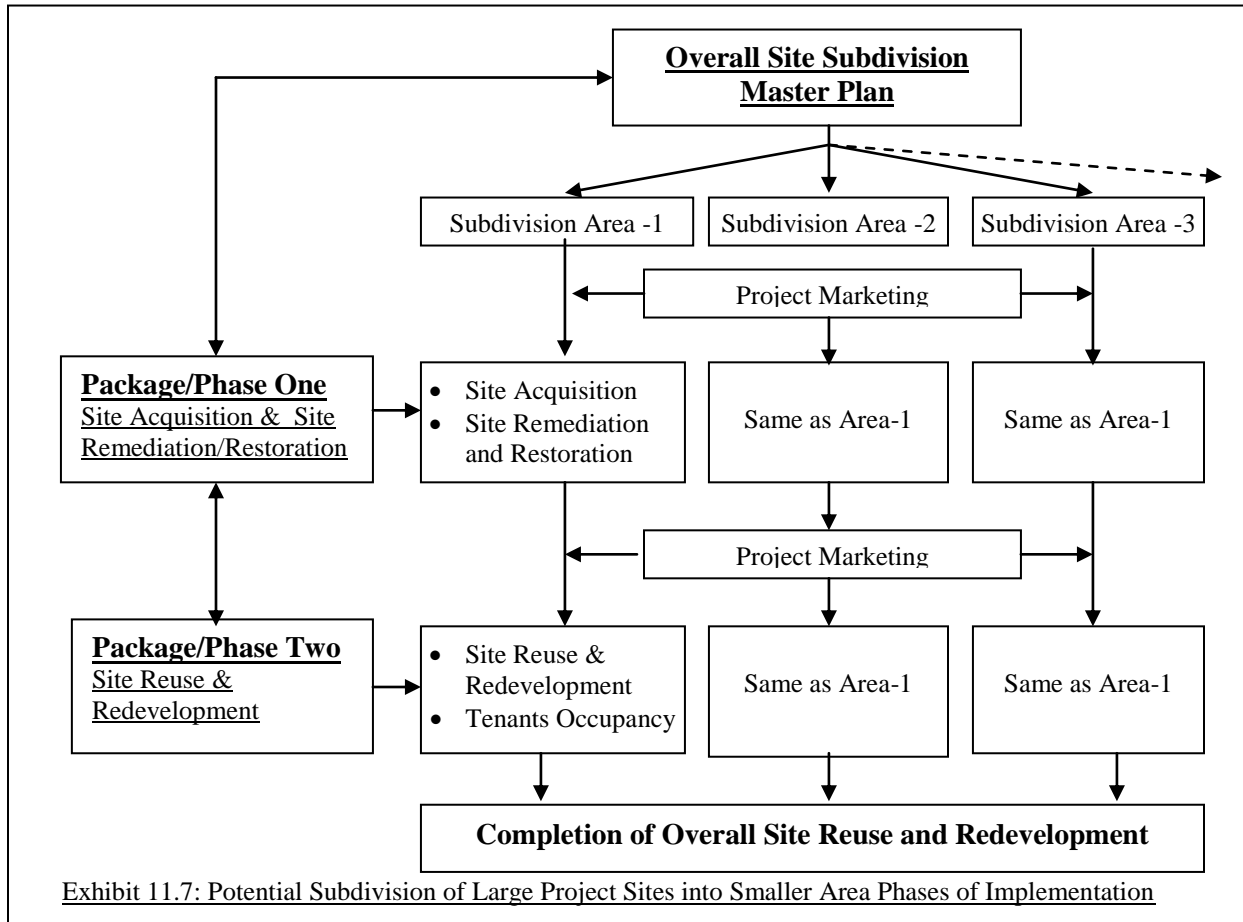
In large redevelopment sites, the planning process usually includes a form of site subdivision into smaller areas that form the basis for phasing of incremental implementation. The

⁶⁸³ Relatively large site is like the Cooksville Quarry project in Mississauga which included large subdivisions like a school campus, park, and neighbourhood commercial centre. Another example is the G&W project in Toronto which included special identity districts as an intermediate level (Key Participants' Interviews, 2000).

⁶⁸⁴ In the case of the G&W project, there were subdivisions within the master plan that will go through site plan approval process. The master plan would be amended if changes occurred within subdivision planning.

⁶⁸⁵ Project marketing may also be applicable before the first package in terms of attracting potential developers to the redevelopment process especially in the cases of relatively larger redevelopment sites like in the case of the WHDS in Hamilton. The City of Hamilton had a vision plan and launched project marketing as an attempt to attract local and international developers to participate in the redevelopment process.

redevelopment plan in all case studies was a form of comprehensive master plan to provide the macro-vision for the project, while redevelopment of specific site subdivision represented the micro-level planning.



The incremental process was applicable to both site remediation as well as site redevelopment. In the G&W project, implementation of both site remediation and site redevelopment was simultaneously incremental and on a site by site subdivision basis following a site plan approval process. In the Cooksville Quarry project, site remediation was completed for the entire site area before starting actual site redevelopment. Implementation of site remediation was incrementally performed in two phases including the flyash area first and the brick factory area as second phase. Also, implementation of site redevelopment was incrementally performed in four phases that were adaptive due to project complexity in terms of large scale site and multiple problems.

11.3.5 Planning in the Context of Multiple Stakeholders with Varying and Conflicting Objectives & Vision

The problem context includes multiple stakeholders that may have varying and conflicting values, objectives and vision for the specific site redevelopment and impact on surrounding context (Exhibit 11.6). In general, the main stakeholders include the project developer (private or public) and their consultants, public approval authorities, and local community residents and interest groups. The project developer and his consulting team are primarily responsible for site reuse redevelopment planning. The primary objective of the private developer is to achieve positive financial feasibility (profit). Public sector stakeholders mainly include the development approval authority (City and Region) in addition to MOE and other provincial and federal institutions. The primary goal of the City is to achieve objectives in the public interest through planning and compliance with City requirements for development approval.⁶⁸⁶ The primary objective of community residents is to achieve positive results for their community in terms of social, socio-economic, and environmental objectives. Local community residents and other interest groups are primarily involved in public consultation meetings. The main axis of conflicting objectives is basically developer's profitability versus achieving social and environmental objectives. Accordingly, the main potential conflicts are between the project developer and the public approval authority as well as with community residents and interest groups. The objectives of the city approval authority and the community are relatively less conflicting unless the city is acting as a developer like in the WHDS project in Hamilton. Also, in the PCD project in Toronto, the developer/TEDCO (quasi-public) had conflicts with both the community and with the City of Toronto.⁶⁸⁷

⁶⁸⁶ The objectives include a healthy environment, providing social benefits and amenities, and socio-economic development like job generation and increasing tax base. This also includes social equity and safety objectives.

⁶⁸⁷ The potential stakeholders' conflicts and examples from empirical case studies are as follows:

- Developer Vs. City Conflicts (Private-Public):
 - Level of heritage conservation: G&W-Toronto & WHDS-Hamilton
 - High building density: G&W project
 - Low building density: Cooksville Quarry project
 - Project functional theme & future vision: Port Centre Development (TEDCO-City)
 - Level of site remediation (SSRA): G&W and Cooksville Quarry
- Developer Vs. Community & Interest Groups Conflict (Private-Community):
 - Project (Big Box dev.) impact on local businesses: Port Centre Development
 - Level of heritage conservation: G&W project
 - Building Density/height: G&W project
 - Building height and social privacy: Cooksville Quarry project
 - Level of site remediation: Cooksville Quarry
- City Vs. Community and Interest Groups Conflict (Public-Community):

Establishing stakeholders' collaboration and partnership (public-private-community) is a favourable condition to control and resolve stakeholders' conflicts as in the successful case studies of the G&W and Cooksville Quarry projects. Stakeholders' conflicts are usually resolved through direct meetings and negotiations which usually resulted in a form of balanced trade-off between concerned parties.⁶⁸⁸ Few conflicts were resolved at the OMB.⁶⁸⁹ Unresolved conflicting objectives and visions between primary stakeholders contributed to failure of some case study projects as in the case of the PCD project in Toronto and the WHDS in Hamilton.

All successfully implemented case study projects included a redevelopment agreement (or agreements) between the City and the Developer, in which the City had stated all requirements to secure City objectives in addition to the requirements for development approval. The development agreement may be considered as a form of Developer-City partnership.

Distribution of Stakeholders' Responsibility for Main Phases of Redevelopment

The distribution of stakeholders' responsibility for the main two redevelopment packages/ phases varied between case studies in the Canadian context and U.S. context (Exhibit 11.8). In most of the general case studies in the U.S. (outlined in Part One), the public sector (City or redevelopment authority) was primarily responsible for the first package/phase of site remediation and the main goal was to instigate brownfield redevelopment. While the second package/phase of site redevelopment was performed by the private sector developer or by a public-private partnership (see also Exhibit 2.9, Chapter Two).⁶⁹⁰

In the Canadian empirical case study projects (outlined in Part Two), the project developer was responsible for the first package/phase of site remediation as well as for the second package/phase of site redevelopment (see also Exhibit 10.7).⁶⁹¹ In the G&W project and Cooksville Quarry project, it was primarily the private project developer who was performing the first package/phase of site remediation as well as site redevelopment. In the cases of Bayfront

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- Displacement of existing residences & heritage: WHDS project, Hamilton
 - Planning vision: WHDS

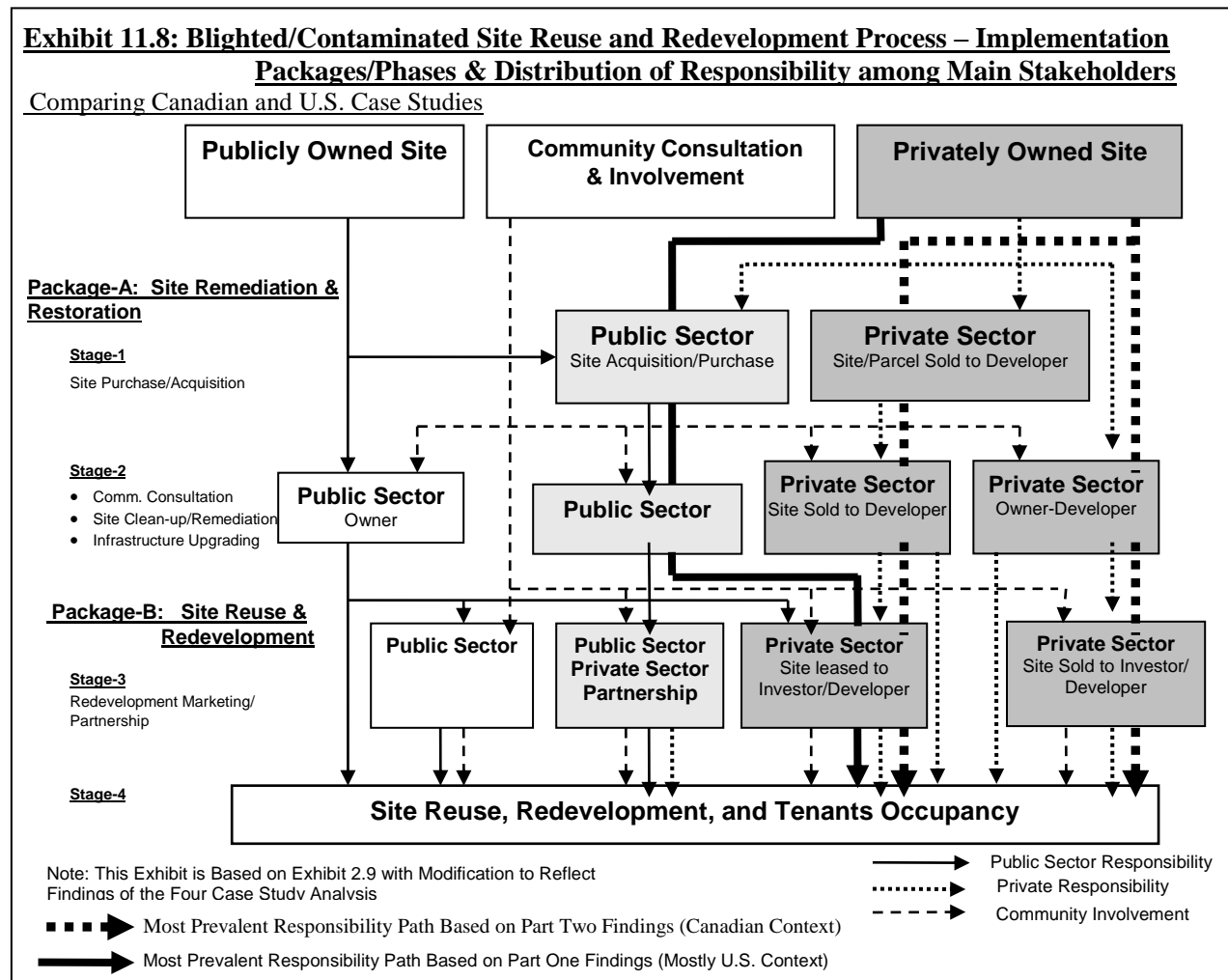
⁶⁸⁸ In the G&W project, the Developer-City conflict over level of heritage conservation was resolved by allowing an added building density to balance project financial feasibility (Key Participants' Interviews, 2000).

⁶⁸⁹ In the case of G&W project in Toronto, the conflict was raised by heritage groups due to impact of building height and density on heritage buildings. In the case of Cooksville Quarry project in Mississauga the conflict was raised by community residents due to impact of high-rise on surrounding residential communities. Both of these conflicts were resolved at the OMB (Key Participants' Interviews, 2000).

⁶⁹⁰ The public sector redevelopment authority would acquire the site and perform site remediation and preparation. In most of the U.S. case studies, site redevelopment was performed by private sector developer.

⁶⁹¹ One exception to this was in the case of PCD project in Toronto. The previous owner/user of the specific site was held liable for site contamination and site remediation. At the property site 300 Commissioners Street, the previous user Sunoco chose to perform site remediation by them.

Park and Harbourfront Trail in Hamilton the City was acting as a developer and hence responsible for site remediation as well as site redevelopment.⁶⁹² In general, the public sector provided redevelopment/financial incentives for the potential private developer who would be responsible for site remediation.⁶⁹³ This indicates that a form of public involvement is needed, at least in the first package of site remediation, in order to foster brownfield redevelopment.



In conclusion, responsibility for redevelopment of contaminated sites required a form of public involvement and support, at least in the first phase of site remediation. The second phase

⁶⁹² Bayfront Park and Harbourfront Trail projects represented a limited portion of the WHDS in Hamilton and they were predominantly for public park/open space function. For the remaining part of the WHDS project, the City of Hamilton was aiming at attracting private developers that would be responsible for both site remediation as well as for site redevelopment (Key Participants’ Interviews, 2000).

⁶⁹³ One of the financial incentive programs adopted by some Ontario municipalities was Tax Increment Equivalent Financing (TIEF). This was basically to use future tax increments as a financial grant (or loan) provided for the private developer (MMAH, 2000a). The program is similar to Tax Increment Financing (TIF) in the United States, where the public sector redevelopment authority was directly responsible for site remediation.

of site redevelopment was generally the responsibility of the private sector in most of the cases. A form of public-private partnership is also possible. The reasoning for the need of public involvement and support is basically private developers are hesitant to take the risk alone for cost of site remediation and related legal liabilities of contamination.⁶⁹⁴ Public involvement can be through direct public responsibility for site remediation, usually performed by a public (or quasi-public) redevelopment corporation, and/or through financial incentives and grants (or low interest loans) provided by the public sector to the developer.

11.3.6 Planning for Heritage Conservation in the Context of Urban Revitalization

Heritage conservation was a key element in case study projects that included elements of cultural heritage value like the G&W project in Toronto and WHDS in Hamilton. Heritage value was represented in terms of architectural and city heritage as well as natural heritage as in waterfront areas and major natural features. Redevelopment within historical inner cities may require addressing heritage issues as a component by itself with heritage planning as a sub-process within the overall redevelopment process. Heritage conservation and adaptive reuse of old buildings and city fabric is an outstanding approach and objective in the process.

Redevelopment within the inner city is also a form of urban revitalization and innovation. Heritage conservation is relatively costly and may affect project feasibility. To be economically feasible, the redevelopment process is a form of intensification in terms of increasing building density and possibly building height. However, intensification and/or building height may be in conflict with the objective of heritage conservation in terms of maintaining heritage character and value, which was the case in the G&W project in Toronto. A balanced tradeoff has to be made and agreement reached among stakeholders to resolve the conflicting views and interests. Providing development incentives is usually required in order to reach agreement between the City and project developer in order to achieve proper heritage conservation.⁶⁹⁵ Given these conditions, the redevelopment process is inevitably a form of balanced tradeoff between inner city heritage conservation and building intensification in the context of urban transformation.⁶⁹⁶

⁶⁹⁴ In the WHDS, marketing the Precinct Concept Plan to private developers was not successful because the City was relying on potential private developer to be responsible for both site remediation and site redevelopment that was associated with uncertainty regarding cost of site remediation and related legal liabilities (Key Participants' Interviews, 2000).

⁶⁹⁵ Incentives for heritage conservation may be in the form of added building density to balance cost of heritage conservation with development profit.

⁶⁹⁶ Bliet & Gauthier (2007: 40) propose a process of "urban morphology", which focuses on the "*evolution of urban forms, examining the consistency and resilience of built space in the face of social, political, and economic*

11.3.7 Planning in the Context of Time and Timing

Time and timing are critical factors in the redevelopment planning process. Time required to completing the phases of site remediation and site redevelopment can affect project feasibility. Also, time required to complete the redevelopment approval process (including environmental approval) is relatively long which implies cost, primarily for the project developer.⁶⁹⁷ Where applicable, approval on heritage issues also requires time in order to reach agreement among concerned stakeholders who usually have different views and objectives. The municipality is another major contributor to the process both in terms of being responsible for development approval as well as committing resources to the planning process.⁶⁹⁸ In all case studies, brownfield redevelopment implied official plan amendment and rezoning which required added time for the approval process. Collaborative planning among stakeholders can help in expediting the approval process. The NRTEE-2003 NBRS included a policy recommendation to streamline municipal approval process for brownfields in order to minimize regulatory delay.

The timing factor is important in prioritization and sequence of redevelopment phasing of implementation. Incremental/phased redevelopment is important for the developer in staggering the cost of redevelopment over smaller area phases. Also, the incremental/phased redevelopment approach helps in generating funds for financing remaining phases of the project. In addition, timing is important in exploiting certain opportunities and resources both in the public and private sectors that may be available at a certain period of time. This may include availability of project funding, financial incentives, grants, as well as utilization of existing political support for the redevelopment process.⁶⁹⁹ Also, timing is important in addressing critical periods for redevelopment like during economic recession.⁷⁰⁰

11.3.8 Planning in the Context of Uncertainty

Uncertainty in brownfield redevelopment planning process is a prevailing factor that affected decision making significantly. The major contributors include the following:

systems and structures. It also addresses the historical sedimentation of urban artefacts by unveiling the mechanisms of transformation and conservation that affect the evolution of built environment”.

⁶⁹⁷ Lengthy approval process can affect project cost/feasibility and consequent failure of the project (NRTEE, 2003; CMHC, 2005; De Sousa, 2006).

⁶⁹⁸ In the G&W project, the City of Toronto performed its own heritage study as well as other planning studies to update the Secondary/District Plan that formed the basis for project approval (Key Participants’ Interviews, 2000).

⁶⁹⁹ In the case of Bayfront Park project in Hamilton, the City utilized the grant and support provided by MOE in completing the project successfully (Key Participants’ Interviews, 2000).

⁷⁰⁰ In the Cooksville Quarry project the planning stage was during the recession time of 1992. The Developer mentioned that they benefitted from the lower development cost during the recession and from marketing during the rising real estate market at the end of the recession (Key Participants’ Interviews, 2000).

- Complexity of the problem context in terms of multiple component problem, usually large area size, and relatively longer time span for site remediation and redevelopment.
- Interactive setting of factors among and within components which makes it difficult to predict planning outcomes.
- Emerging or unforeseen factors like unknown levels of site contamination and required remediation as well as unknown future liability of contamination.
- Involvement of multiple stakeholders with conflicting values, objectives, and vision which makes reaching agreement difficult.
- Unknown or extended time requirement for approval and site redevelopment process, as well as uncertainty of the implied cost of redevelopment.
- Variability of factors over time.
- Bounded rationality in terms of limited knowledge of planners and stakeholders in general about components of the planning process.

Given the above factors, the redevelopment planning process and outcome needs to be flexible, incrementally adaptive and following an evolutionary planning approach and vision. The process needs to address the micro-level planning decision making at area subdivision level as well as maintaining macro-level overall planning vision.

11.3.9 Multiple Component Mixed Rationality Planning with a Comprehensive Vision

As outlined earlier, the planning context of brownfield redevelopment includes multiple components with pertinent planning sub-processes and representing various disciplines. The physical land use planning sub-process and the environmental site remediation planning sub-process were clearly defined in the empirical case studies. The economic planning sub-process, in terms of project financing and marketing, was mainly performed by the project developer and his team and partly by the public approval authority. The social planning sub-process was not clearly defined; however, the planning process addressed social and socio-economic objectives. The development approval process, including public consultation meetings and workshops, was a representation of stakeholders' organization and the political planning sub-process.

Planning sub-processes at the component level (like the environmental and physical land use planning sub-processes) are basically following the rational decision making model in achieving their pertinent specialized objectives.⁷⁰¹ However, the overall planning process is

⁷⁰¹ The consolidated stages of the rational decision making model include analysis, synthesis, evaluation, implementation, and monitoring. For applications, see Section 11.3.1. Also, see Exhibit 2.4, Chapter Two which outlines five models for the planning process that follow the rational decision making model. In addition, the evolution of planning theory (Exhibit 3.2, Chapter Three), and despite of criticism of the rational comprehensive

complex and included mixed rationalities in terms of having multiple planning components that represent multiple disciplines, and involving multiple stakeholders. The multiple disciplines include specialized planners that are involved in the process and each specialized discipline has its own focal point(s) and rational orientation. In addition, the involved multiple stakeholders have varying objectives, interests and values and each stakeholder's group has their own rational framework. The planning outcomes from all planning sub-processes are in a way integrated into a consolidated overall plan which is a form of comprehensive vision (Exhibit 11.9).

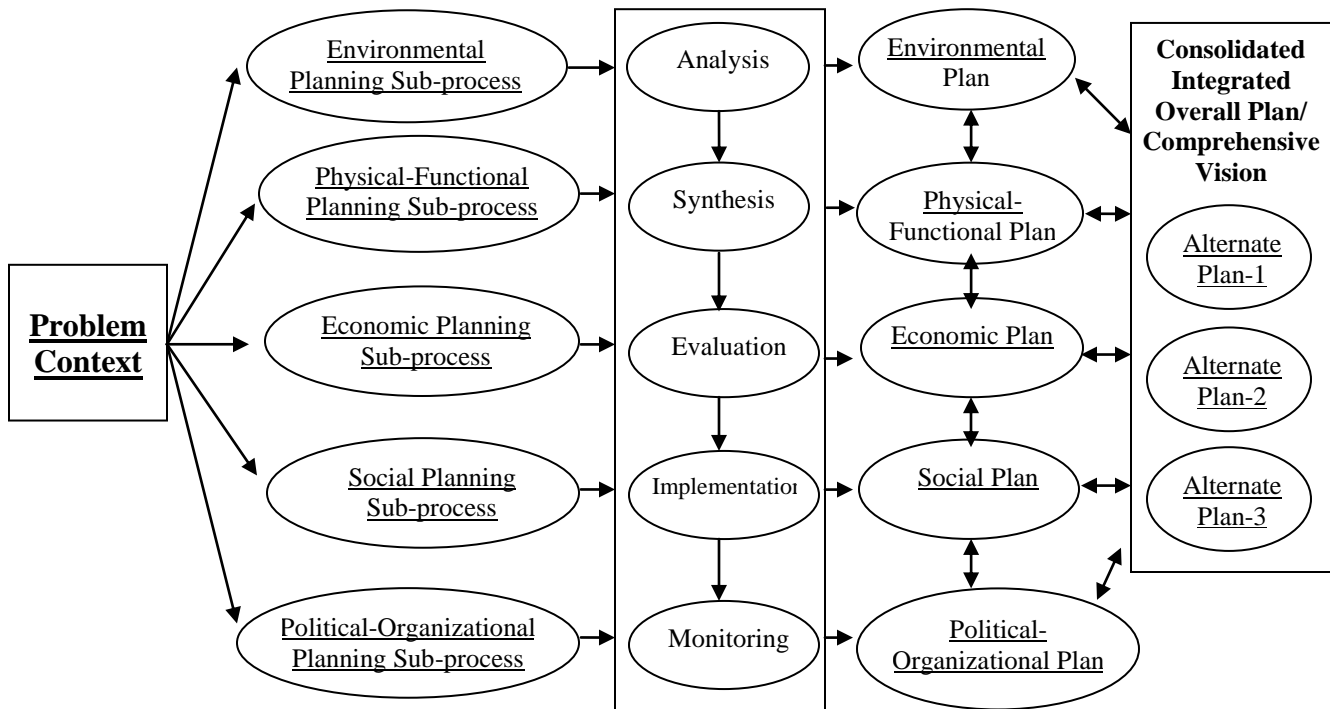


Exhibit 11.9: Multiple Component Mixed Rationality Planning with a Comprehensive Vision

In essence, the overall planning process is composed of two main interrelated levels including micro-level intra-component planning sub-processes and macro-level multiple component overall planning process and vision. The two levels of planning address inter-component linkages; however, micro-level planning sub-processes also address intra-component linkages and they are relatively more specialized and with primary focus on the pertinent specialization or discipline. An important planning objective is to identify the important linkages within and among components as well as using them in constructing an integrative plan. Integration is required at micro- and macro-level planning.

planning model, reveals an inclination toward rational decision making (Hodge & Gordon, 2008: 176; Healey, 2003: 243; Brooks, 2002: 162).

In the real world empirical case studies, the above framework for the overall multiple component planning process was not explicitly manifested. However, it may be envisioned in the combined planning processes performed by the project developer and his team, in addition to related planning processes performed by the public approval authority. The development approval process was the organizational interface between processes by the developer and the public approval authority.

The developer and his consulting team had performed the planning sub-processes including environmental site remediation, physical-functional land use planning and urban design, economic/financial planning and marketing, and addressed social objectives required in the development approval process. Regarding the political-organizational planning sub-process, the developer was responsible for organizing his team of consultants and had good leverage on the planning process within his domain. The primary emphasis for the developer was to achieve economic objectives.⁷⁰²

On the other side, the city and related public approval authorities were responsible for organizing the development approval process as well as organizing their team of professionals and consultants. In addition, the city and related approval authorities performed the component planning sub-processes in terms of preparing the development approval requirements for each component. The development approval process was primarily emphasizing the physical-functional land use planning and urban design issues as the core in the development approval.⁷⁰³ Also, the public approval authority addressed the environmental approval sub-process including site remediation and other critical environmental issues. In addition, the city included social objectives (like social housing) as part of development approval requirements that the developer had to comply with. However, the social issues and problems, in general, were not addressed in a defined social planning sub-process within the development approval requirements. Regarding the economic planning sub-process, the City was not responsible for project financial feasibility; however, the city performed their own economic impact studies like projected tax revenues and job generation, in addition to project marketing in some cases.

Current planning processes, performed by the city and related approval authorities, are relatively more influenced by and biased toward requirements of the physical-functional

⁷⁰² This was the case for the private project developer as well as for TEDCO (quasi-public) developer who had a stated mandate for achieving economic objectives.

⁷⁰³ In the G&W project, the City updated the Secondary Plan covering the project site and commissioned private consultants to perform urban design and heritage studies in order to update development approval requirements.

component. While planning decisions by the developer are primarily influenced by the economic component, namely financial and market feasibility factors. Also, physical development is a contributing factor to economic development objectives. As a result of these planning biases, the polarized economic-physical development emerges as a dominant dual component in the planning process.⁷⁰⁴ These biases in the planning process are at the expense of achieving social and environmental objectives, which is resulting in lower social and environmental quality. Also, these planning biases are resulting in political conflicts of objectives and visions among stakeholders. Ultimately, these planning biases were contributing factors to project failure in case studies.⁷⁰⁵ While, successful case study projects (G&W and Cooksville Quarry) had an inclusive and balanced approach among components and without prior biases toward any component. Also, the process included successful collaboration and partnership among stakeholders.

Given this complex problem setting, an important theme in the planning process is to be inclusive of the main problem components and their pertinent planning sub-processes including main stakeholders' values and objectives (public-private-community), and to achieve a viable multiple component planning package. It is also important to avoid prior biases to any component which may result in biased decisions and plans. The development of a planning package will evolve from contextual analysis and evaluation of conditions in a given project including stakeholders' aspirations and future vision for the project site and its surrounding.

11.4 COMPARISON BETWEEN THE PROPOSED PLANNING FRAMEWORK & GENERAL PLANNING THEORIES & PARADIGMS (Exhibit 3.2, Chapter 3)

Comparison of main characteristics of the proposed multiple component integrative planning framework vis-à-vis those of emerging planning theories and paradigms can shed some light on a new vision for a new framework for brownfield reuse and redevelopment planning in specific and planning in general. As outlined in Chapter Three, the evolution of planning paradigms was originating from various planning approaches and models/theories in various components or disciplines (Exhibit 3.2). Planning paradigms may be classified into three main categories including main stream planning that was more focused on the physical and economic

⁷⁰⁴ This has been the case since the origin of city planning more than a century ago. For more information, see Section 3.1.1 Brief Notes on Planning History and Exhibit 3.2, Evolution of Planning Paradigms, Chapter 3.

⁷⁰⁵ In the PCD project in Toronto, the stated mandate of the developer TEDCO was economic growth which resulted in emphasis and bias toward economic objectives. The economic objectives would be achieved in the proposed "Big Box" wholesale type retail commercial. However, the proposal was not acceptable to the City (in terms of future vision for the Port area), as well as to local small business groups who perceived the proposed functions as a threat to their own businesses. These conflicts in vision and objectives resulted in project failure.

components, ecological context planning that was focused on the natural environmental component, and socio-political context planning that was focused on the social and political-organizational components. Exhibit 11.10 provides a brief comparison between the proposed multiple component integrative planning framework and emerging planning models/theories and paradigms. The following is a brief outline of the main comparative issues and distinctions:

11.4.1 Multiple Component Planning Context without Prior Bias or Predominance

The main distinction for the proposed planning process is its deconstruction of the complex problem context into consolidated multiple components with prior neutrality towards components and factors. In essence, the proposed planning framework resolves the problem of complexity by transforming it into smaller manageable components. Multiple component contextual analysis and evaluation is the basis for variation and relative importance of factors/components and as perceived by pertinent stakeholders. On the other hand, most of the current planning models have inherent emphasis or bias toward certain components. For example, the traditional rational comprehensive planning (RCP), that also addressed multiple components, have emphasized the physical and economic components as the main core. The socio-political planning approaches (advocacy, participatory, communicative planning) emphasized the social and political components as the main core. The eco-system based planning approaches emphasized the environmental-ecological component as the main core. Multiple component planning acknowledges the objectives in the five consolidated components including the socio-political and environmental components in addition to the physical and economic components but without prior bias. The objectives in the five components will be balanced based on multiple component contextual analysis and evaluation that will target important factors and linkages within and among components.

One exception from general planning theory, that is similar to the proposed planning approach, is sustainable development which aims at balancing the conflicting objectives and conditions among the social, economic, and environmental components (Campbell, 2003:437). However, sustainable development is not a planning approach in terms of setting a course of action, but rather a planning guideline that outlines a preferred future goal/condition which can be used in the planning process. Also, sustainable development addresses three consolidated components (social, economic, environmental) while the proposed planning framework

addresses five consolidated components, adding the physical-functional and political components as part of the multiple component planning context.

11.4.2 Interactive Problem Components Context Requiring an Integrative Planning Approach

Another distinct characteristic of the proposed planning framework is the acknowledgment of an interactive problem component context including their pertinent planning sub-process, which requires an integrative planning approach to synthesize planning sub-processes at the component level as well as the overall multiple component level. This integrative planning approach will address intra-component as well as inter-component linkages in setting-up the multiple component plan. In contrast, disjointed incremental planning (DIP) that has been widely applied in policy planning focuses on individual policy decisions separately (within a certain component) and evaluation of results is based on repeated action over time. The DIP approach may be applied in a policy planning context but will be lacking the comprehensive vision for interactive issues and linkages among components. Also, it is difficult to apply the DIP approach alone in applied brownfield redevelopment planning context. However, policy planning may be utilized as an integral element in the planning framework as proposed earlier under policy directions.

The proposed multiple component integrative planning framework considers comprehensiveness as a vision rather than a “blue print” plan. The rational decision making process is primarily applied to the component and sub-component levels of planning which is relatively less complex and more viable. In addition, the proposed planning approach includes an incremental mode especially for large scale site redevelopment; however it is jointed and adaptive incrementalism in terms of phasing of project planning and implementation over time.

Another aspect of the proposed planning approach is the multi-disciplinary nature that will require specialized planning expertise in the various disciplines. In this context, technical planning is actually performed by multiple planning specialists from various disciplines rather than by a physical planner who used to be the central figure in the RCP process during most of twentieth century planning. This explains the resulting bias toward the physical component on the expense of social and environmental issues. Also, this multi-disciplinary context, requires design expertise in integrating the two levels of planning including micro-level intra-component planning with macro-level multiple component planning vision.

11.4.3 Mixed Rationality Planning rather than Single/Planner's Technical Rationality

The notion of rationality is still prevailing in planning. However, it is evolving from centralized technical rationality into mixed rationality in terms of decentralized multiple component, multi-disciplinary and multiple stakeholders' values and objectives. Most of the criticism against RCP has been primarily focused on the "central, technical, instrumental, and top-down" aspects of planning with the technical planner as a central authority rather than on the notion of "rationality" in decision making (Healey, 2003; Brooks, 2002; Beauregard, 2003; Hodge & Gordon, 2008). In the context of communicative planning, Healey (2003: 243) proposes a model for a political/communicative planning process that includes stages similar to the rational decision making process (analysis-synthesis-evaluation) but customized to fit a political communicative context. In essence Healey is addressing the political component sub-process which is part of the overall multiple component process.

In the context of public planning, Brooks (2002: 162) also asserts the need for including the political process and proposes the "Feedback Strategy" as model for the planning process; the proposed model includes stages similar to the rational decision making process but with feedback loops that link the process stages with the planner's social and political environment (Exhibit 4.3, Chapter 4). In this case, Brooks is only highlighting the importance of integrating the political component as part of the overall process.

In the context of community planning, Hodge & Gordon (2008:176) consider rational decision making as one of the values of planning and propose a model for the community planning process including a form of community participation. The model follows the steps of the rational decision making process in a comprehensive and one consolidated component form rather than the deconstructed multiple component form; also, they refer to rationality as "*Bounded Rationality*" meaning "*constrained and limited by knowledge, culture, and values*" of the community plan makers (participants). Bounded rationality is also applicable in the proposed planning framework.

Given the above outline, rationality in planning has been evolving into mixed rationality in a plural sense. The underlying key issues are the substantive aspects of multi-disciplinary context and multi-stakeholder political process in terms of collective decision making.

11.4.4 Comprehensive Vision rather than Comprehensive “Blue Print” Plan

The proposed multiple component integrative planning framework includes the notion of comprehensive vision rather than a comprehensive blue print plan as it is in the RCP model. The difference is in terms of flexibility and adaptability to emerging and unforeseen conditions. Most of the criticism against comprehensive planning was on the outcome of comprehensive “blue print” (fixed/rigid) plan, and it was also difficult to set-up a complete master plan given complex conditions, limited knowledge, and limited time framework. However, considering a comprehensive vision represents a general flexible guide to allow perception of connectivities as well as providing a holistic view of the plan and planning process. This comprehensive vision can allow for better integration especially among components.

11.4.5 Private Sector/Developer’s Planning, Public Sector Planning and the Community, Stakeholders’ Organization in a Capitalist-Democratic Context

In a capitalist democracy like Canada and the U.S., the private owner/developer has certain rights and power for property development and the public sector has certain rights for planning and regulating the development through the public approval process. The goal of the public sector approval authority is presumably to achieve objectives in the “public interest” including community interests. Community residents are only involved in public consultation meetings to convey their views and objectives. However, final decisions are within the domain of the project developer and the public approval authority. More leverage is needed for community residents in order to achieve a meaningful public-private-community collaboration and partnership.

As identified in the empirical case studies, the current development approval process and requirements were primarily biased toward the physical-functional component (official land use planning, zoning by-laws and urban design guidelines) with the objective of achieving social objectives through physical-functional development. Also, planning by the project developer and his consultant team primarily fulfills requirements of the development approval process with an inherent bias toward achieving economic investment objectives. In essence, the economic-physical components are the main driving force in the process which is potentially biased and susceptible to stakeholders’ conflicts.

Application of a multiple component integrative planning approach can provide a balanced approach among components and with a better control and resolution for potential stakeholders’ conflicts. The current public approval process includes some multiple component requirements like social/affordable housing and environmental remediation, etc. However, the

pertinent planning sub-processes within each component are not holistically addressed as a process with the exception of the physical-functional and environmental site remediation sub-processes. Even though approval requirements may include social, environmental, and other objectives, it is preferable to address each component planning sub-process individually and collectively. In this research, the recommendation for the public approval authority is to go a step further and address planning for the five consolidated components as interrelated planning sub-processes and establish the pertinent approval process requirements.

The proposed multiple component integrative planning framework is meant to be performed by the public sector approval authority as well as by the project developer, and in the context of community participation. This can be done through the establishment of requirements for a multiple component planning sub-processes within the development approval process. The scope of the public approval process should go beyond the traditional official plan and zoning requirements that is usually broad and emphasize the physical component.⁷⁰⁶ Anyway, in all empirical case studies of brownfield redevelopment, the approval process implied official plan amendment and rezoning due to various inherent factors including, inner city functional transformation and restructuring. Given this condition, the public planning approval authority has to update their official plan, zoning requirements, as well as developing their updated vision for the area/district including the project site. In this case, the public planning-approval authority can develop multiple component integrative planning process. All what is needed is to bring up in advance all the critical factors in all components and in a given context, which will be the basis for establishing the approval requirements.

In conclusion, the application of multiple component integrative planning approach is viable. The current context of planning, especially brownfield redevelopment, employs some aspects of multiple component planning. However, representation of multiple component planning sub-processes is not explicitly performed but required. Also, more integration is required at both micro-level intra-component planning sub-process and policy planning level as well as macro-level multiple component planning.

⁷⁰⁶ In the successful case studies (like G&W in Toronto and Cooksville Quarry in Mississauga), the municipal approval authority updated their planning vision for the area/district including the project site. This was the basis for the project approval process (Key Participants Interviews, 2000).

Exhibit 11.10: Comparison between Characteristics of the Proposed Multiple Component Integrative Planning Framework and General Planning Theories and Paradigms		
	Characteristics of Proposed Planning Framework	Characteristics of General Planning Models/Theories
1.	General	
	<p>Multiple component, multi-disciplinary, multi-stakeholder integrative planning framework with mixed rationality and comprehensive vision.</p> <ul style="list-style-type: none"> • Consolidated components include environmental, physical-functional, economic, social, and political, in addition to time and timing. • Planning sub-process(es) within related components. • Emphasis on linkages within and among components and pertinent planning sub-processes • Integration at both micro-level intra-component planning sub-processes and macro-level overall multiple component level. 	<p>Wide range of individual planning models/theories in different disciplines and each one is emphasizing its respective component or discipline. Main models include:</p> <ul style="list-style-type: none"> • RCP - Rational comprehensive planning (like land use planning, with emphasis on physical & economic comp.) • DIP - Disjointed incremental planning (policy planning) • MS - Mixed scanning (combining micro-level planning with macro-level understanding). • ESBP - Ecosystem based planning (emphasis on environmental component) • CBP - Community based planning, transactive/participatory planning, advocacy planning, radical planning, social equity planning (emphasis on social and political components). • CP - Communicative/collaborative planning (emphasis on social and political components) • SD - Sustainable development (emphasis on integration of social, economic, and environmental objectives)
2.	Multiple Component Planning Process Including Planning Sub-process(es) within each Component	
	<ul style="list-style-type: none"> • Considers multiple components individually and collectively • No prior bias/primacy of a certain component – components are of equal importance in the beginning • Multiple component contextual analysis defines impinging factors & linkages. Contextual bias to identified linkages is acceptable. 	<ul style="list-style-type: none"> • RCP included multiple components but emphasis was primarily on the physical-functional component and economic component. (applied in land use planning, urban development & urban design) • ESBP addresses environmental ecosystems as the core basis for other components. • CBP has primary emphasis on the social and political components • SD aims at balancing social, economic and environmental objectives. It is a statement of future goal/condition rather than a planning course of action. • DIP focused on single component policy planning
3.	Interactive Components Requiring and Integrative Planning Approach	
	<ul style="list-style-type: none"> • Problem components are interactive through certain linkages within and among components • Linkages within and among components need to be identified during multiple component contextual analysis. • Integrative planning course of action within components (intra-component sub-process) and overall multiple component planning. 	<ul style="list-style-type: none"> • Linkages are included as they relate to the primary component for the respective theory. RCP - physical & economic EBP - environment CBP – Social political • SD addressed linkages among components to describe a condition & long term goal of sustainable development rather than setting a planning course of action.
4.	Planning at Multi-level Spatial Context	
	<ul style="list-style-type: none"> • Spatial levels include overall site (macro-level) 	<ul style="list-style-type: none"> • RCP addressed multi-level spatial context in a

	site subdivision level (micro-level) & surrounding area.	similar way
5.	<i>Incremental/Phased Implementation Planning Especially in Large Size Sites</i>	
	<ul style="list-style-type: none"> • Two main phases – site remediation & site redev. • Phasing of implementation through site subdivision into smaller areas, then incremental • Prioritization of incremental/phased implementation 	<ul style="list-style-type: none"> • RCP - Phasing of plan implementation and prioritization are addressed in most of different planning approaches especially in dealing with relatively large or complex cases.
6.	<i>Multiple Stakeholders' with Conflicting Objectives & Vision</i>	
	<ul style="list-style-type: none"> • Need for conflict resolution. • Trade-offs are likely needed for conflict resolution • Incentives may be used for conflict resolution 	<ul style="list-style-type: none"> • Applicable to other planning approaches
7.	<i>Balance between Heritage Conservation & Urban Innovation</i>	
	<ul style="list-style-type: none"> • Balancing heritage value and innovation (new added buildings) • Balancing heritage value and cost of conservation of buildings & sites. • Blending new buildings and site context with existing heritage buildings and sites. • The blend of old and new represents a form of urban evolution 	<ul style="list-style-type: none"> • Applicable to other planning approaches, however it is complementary to the primary component of the respective planning approach.
8.	<i>Time & Timing Considerations</i>	
	<ul style="list-style-type: none"> • Control of time for redevelopment approval and implementation • Sequence and timing of implementation phasing. • Timing of redevelopment within favourable conditions and recession periods. 	<ul style="list-style-type: none"> • Applicable to other planning approaches.
9.	<i>Planning & Uncertainty</i>	
	<ul style="list-style-type: none"> • To address flexibility & adaptability in the planning process & outcome. • Multiple component and multi-layer approach reduces uncertainty. 	<ul style="list-style-type: none"> • Applicable to other planning approaches • However, planning approaches with prior emphasis on certain components (like DIP) may raise uncertainty level
10.	<i>Multiple Component Mixed Rationality Integrative Planning with a Comprehensive Vision</i>	
	<ul style="list-style-type: none"> • Essentially includes all previous characteristics • Multiple component integrative planning process. • Includes multiple component at all stages of rational decision making including analysis, synthesis, evaluation, implementation & monitoring. • No prior emphasis/bias toward a particular component • Relative importance of factors emerge from contextual analysis • Recommended for application by both the project developer's team and public sector approval authority 	<ul style="list-style-type: none"> • Even though multiple components are addressed in some of the planning approaches (like RCP), there is inherent prior emphasis/bias toward certain components and according to each planning approach. One exception is sustainable development. • Integration among components is addressed in some of the planning approaches like RCP. • No integration among components in DIP (policy planning). Integration is adjusted for over time. • Various separate planning approaches that are complementary.

CHAPTER TWELVE: GENERAL CONCLUSIONS & RECOMMENDATIONS

12.1 BRIEF OUTLINE OF CONCLUSIONS

The main research goal is to establish a planning framework and approach for the reuse and redevelopment of blighted contaminated industrial sites (brownfields) within the context of the Canadian inner city. The research findings reveal a multiple component interactive problem context and highlight the need for a multiple component integrative planning framework for brownfield redevelopment. The proposed planning framework is represented in three main constituent parts including the problem context, potential policy directions and guidelines, in addition to characteristics of the overall planning process. The main conclusions of these three constituent parts of the proposed planning framework are outlined in the following sections.

12.1.1 Problem Context

The problem context and pertinent planning objectives form the basis for developing and characterizing the planning framework and process for brownfield reuse and redevelopment. The central research objective and question include an evaluation of identified problems and issues and to examine how problem components and their linkages impinge on the planning process.

The problem context of brownfield redevelopment is a complex setting in terms of multiplicity and interactive nature of components, elements and issues. In general, the consolidated components may be represented in the environmental-legal, physical-functional, economic, social and political-organizational components, in addition to time and timing. The consolidated problem components may also include important sub-components in a certain project context that may be addressed individually like heritage conservation planning as in the G&W case in Toronto. The analysis of the complex problem context into components and subcomponents is also based on relatively specialized planning sub-processes that are inherent within problem components like land use physical planning and environmental site remediation planning. The problem components and pertinent planning sub-processes are interrelated and this classification is not meant to be a separation among components, but an analytical framework for deconstructing the complex problem context in order to understand and plan in this setting.

Each problem component and pertinent planning sub-process(es) represent a certain discipline (or disciplines), which implies a multi-disciplinary planning context. Given the complexity of the problem context, it is difficult to apply the rational decision making model (analysis-synthesis-evaluation-implementation-monitoring) on the overall multiple component

context. However, the rational decision making theme can be applied at a more manageable component or sub-component levels. In other words, the multiple component approach is a mean to deconstruct complexity into meaningful components (and sub-component) levels so that rational decision making can be applied to. Ultimately, the overall planning process needs to be reconstructed by integrating the sub-processes within components.

The identified problem factors and issues represent an important basis for brownfield redevelopment planning. They are also classified according to the pertinent problem components outlined earlier, which may help relate problems to potential policy directions. The impact evaluation of identified problem factors as perceived by key participants in the case study projects reveals that the overall average impact level within most of the empirical research components (six out of eight) was relatively significant (▲-● moderate-strong and above) (Exhibit 11.2). Some of the outstanding problems and issues that scored relatively high impact include “*existence of decommissioning guidelines (■ very strong)*”, “*site environmental contamination and its interactive linkages with project economic feasibility (●-■ strong to very strong)*”, “*difficulty of project initiation due to high risk and uncertainty (● strong)*”, “*clarity of project approval process (● strong)*”, and “*surrounding land uses (● strong)*”.⁷⁰⁷

The relative weighting of identified problems for brownfield redevelopment as perceived by key participants reflect the specific conditions of the empirical case studies and may vary according to the project context. Accordingly, the identified problems in this research may be used as a starting reference point to help in developing the contextual condition in other projects. Also, the list of identified problems and issues can be used as the basis for establishing multiple component evaluation criteria (or indicators) for assessing brownfield projects before and after implementation. In addition, the identified problems and related objectives form the basis for developing potential policy directions.

12.1.2 Potential Policy Directions and Guidelines

The policy directions and guidelines represent micro-level planning and decision making, which may also address intra-component and inter-component linkages. Preliminary policy directions and guidelines are developed based on preliminary research findings that highlight favourable circumstances for brownfield redevelopment. Policy directions and guidelines directly address the main problems and objectives for redevelopment, and they are also classified according to

⁷⁰⁷ See Section 11.1, Chapter Eleven for the list of problem factors with relatively higher impact evaluation. Also, see Exhibit 11.2 for the complete evaluation of all identified problem factors.

the pertinent problem components outlined earlier. This may help in relating policy directions to the original problems and objectives as well as to the pertinent planning sub-process(es) within each component. The main research objective and question for this constituent part of the planning framework include an evaluation of the proposed policy directions and guidelines to identify potentials for application.

The impact evaluation of the preliminary policy directions and guidelines as perceived by key participants' in the empirical case study projects reveals that the overall average impact of policy directions within most of the components was significant (▲-● moderate-strong and above) (Exhibit 11.3). Also, there are certain policy directions with significant impact level in every component included in the empirical research.⁷⁰⁸ This indicates the potential and importance of considering a multiple component approach for applying policy directions. Comparative evaluation of the proposed policy directions and guidelines with related policy recommendation studies for the “*National Brownfield Redevelopment Strategy*” (NRTEE 2003 & OCEDA 2008) also highlights the importance of a multiple component approach for applying group policy recommendations (Exhibit 11.4). The research concludes the following recommended policy directions for further development and application:

- To prepare an inventory of existing blighted contaminated industrial sites (brownfields) (physical-environmental components). This helps in area wide planning for brownfield reuses and redevelopment.
- To establish public-private partnerships for project financing (political-economic)
- To secure accessibility of local residents to newly provided opportunities like jobs (social-political components)
- To develop special redevelopment authority (public or public-private) that is directly responsible for the redevelopment process (political-organizational components)
- To foster stakeholders' collaboration and partnership public-private-community (political-social components)
- To develop self-financing mechanism like tax increment financing (TIF/TIEF) to finance cost of site remediation (economic-environmental components)
- To provide environmental insurance to cap site remediation cost (economic-environmental components)
- To adopt a multiple component integrative planning framework to link major planning sub-processes (multiple component)
- To develop multiple component evaluation criteria (or indicators) to assess brownfield redevelopment projects (multiple component)

⁷⁰⁸ See Section 11.2.1, Chapter Eleven for an outline of policy directions and guidelines that scored relatively high in impact evaluation by key participants. Also, see Exhibit 11.3 for a full outline of all policy directions and guidelines.

The recommended policy directions represent the basis for developing refined planning policies, which may be utilized mainly within public sector planning and partly by the project developer's team.⁷⁰⁹ The recommended policy directions and guidelines may be applied individually; however, it will be more effective to apply interrelated policies and guidelines as a group that will be more context driven.

12.1.3 Characteristics of the Planning Process

The overall planning process and its characteristics represent the third and main core constituent of the proposed planning framework for brownfield redevelopment. The research findings highlight the following main characteristics of the proposed overall planning process:

- *Multiple Component Integrative Planning Process without Prior Bias or Predominance*
- *Interactive Problem Components that Require an Integrative Planning Approach and Based on Addressing Inter-component & Intra-component Linkages*
- *Multi-Stakeholder Involvement with Potential Conflicting Objectives, Values and Vision*
- *Multiple Component & Mixed Rationality Comprehensive Planning*
- *Planning Process at Multi-Level Spatial Context*
- *Phased Implementation Planning that is Incremental & Adaptive*
- *Heritage Conservation Planning in the Context Urban Revitalization*
- *Planning in the Context of Time and Timing*
- *Planning in the Context of Uncertainty*

In this regard, the central research objective and question include an examination of the proposed multiple component integrative planning process including the nature of linkages within and among components, as well as an examination of characteristics of the proposed planning process and how they relate to the success and failure of case studies. The empirical research findings reveal that successful case study projects included a planning process with main characteristics close to the proposed multiple component integrative planning process. On the other hand, the unsuccessful case study projects were lacking some of the main characteristic requirements of the proposed multiple component integrative planning process. The findings and conclusions will address the critical characteristics of the proposed overall planning process:

Multiple Component Integrative Planning Process without Bias or Predominance

The overall planning process responds to and reflects the nature of the problem context. As outlined earlier, the research findings reveal a multiple component interactive problem context

⁷⁰⁹ It is important to note that the City of Hamilton was considering a study to evaluate the potential for establishing a development corporation that would be directly responsible for development/redevelopment within the city which will include brownfield redevelopment (Follow-up meeting with a senior community planner at the City of Hamilton on June 15, 2009). The senior community planner was also one of the informants interviewed as part of "Key Participants' Interviews in 2000" for the WHDS case study in Hamilton.

that includes a pertinent planning sub-process (or sub-processes) within each component. The planning sub-processes are interrelated and include the environmental-legal, physical-functional, economic, social, and political-organizational planning sub-process. Planning sub-processes may be envisioned as interrelated planning layers and overall planning as a multi-layered process.

The research findings highlight the need for applying multiple component integrative planning approach without prior bias or predominance of a certain component planning sub-process(es). Also, the findings of empirical research reveal that in successful case study projects (like G&W project in Toronto and Cooksville Quarry project in Mississauga) the overall planning process was more inclusive and balanced among component planning sub-processes. The characteristic feature of no bias to or predominance of a certain component(s) was represented in adopting a site remediation approach and physical land use functional theme that were ultimately acceptable to all stakeholders, balanced economic-social-environmental feasibility framework between the project developer and the approval authority as the main two poles of the planning process, and addressing public-private-community collaboration and partnership with emphasis on community involvement and support. While in unsuccessful case studies, there was an apparent bias toward certain components, namely the economic and/or physical functional components. This bias was a contributor to their failure.⁷¹⁰

In general, planning performed by the project developer (private or public), the process is primarily biased toward the economic component in terms of achieving positive financial and market feasibility rate of return (economic profit). All other planning sub-processes are in a way influenced by the economic factor. While planning processes, performed by the public approval authority (municipality), are relatively more biased toward the objectives and requirements of the physical-functional component, mainly the official land use plan and zoning by-laws.⁷¹¹ Partial attention is given to the environmental site remediation issue because there is a critical problem that should be addressed based on regulation. The social planning sub-process is limited to

⁷¹⁰ In the case of the PCD project in Toronto, the developer (TEDCO) had a stated mandate for economic development and growth which implied predominance or bias toward the economic component. Accordingly, the proposed functions were warehouse type retail commercial and industrial (Big Box). TEDCO did not properly address the overall future physical-functional vision for the Port Area as viewed by other stakeholders (the City and local community). Even though TEDCO was potentially successful on economic grounds; however, they failed at other components. In the WHDS, the City of Hamilton focused on producing a physical urban design concept plan and vision for the area. There was bias/predominance toward the physical-functional component. The concept plan was perceived by the local community and interest groups as a “blueprint” for an urban renewal project that will result in clearance of significant number of buildings/residences and some having heritage value. In both case studies, the bias toward certain components was a contributor to their failure (Key Participants’ Interviews, 2000).

⁷¹¹ In essence, land use planning/plan may represent one component sub-process and plan (physical-functional). Other component planning sub-processes and pertinent plans should, altogether, constitute the overall City Plan.

achieving certain social objectives like social housing and services. In other words, the current trend in planning by the public approval authority and the project developer may be described as biased toward the physical-economic components. In addition, findings of preliminary literature review of the evolution of planning models and paradigms reveal a mainstream rational comprehensive model that is more biased toward the physical-economic components. The impact of this trend has been on the expense of social and environmental systems and related objectives.

In order to have a balance in addressing all problem components and pertinent planning sub-processes, a multiple component integrative planning process and approach is required and without bias or predominance of certain component. However, contextual analysis and evaluation may reveal the relative importance of certain issues and components in a given project, which will be acceptable to adopt. In essence, multiple component integrative planning is applied at two inter-related component levels:

- Micro-level Intra-component planning that addresses the individual component as the core as well as its linkages to other components.⁷¹² This is relatively specialized planning including certain discipline or disciplines.
- Macro-level Overall multiple component planning that includes all components and inter-component linkages. This is a higher level of planning including all related disciplines.

Planning sub-process(es) within each component has an inherent focus on the specialized nature of the component.⁷¹³ However, and in addition to the primary focus, each planning sub-process should be addressing the main linkages to other components. Any of the specialized component planning sub-processes cannot be considered alone as the representative for the overall planning process. However, considering the multiple component planning sub-processes collectively can represent the overall planning process. This planning framework may be used by the public sector approval authority as the regulatory planning framework as well as by the project developer's team in compliance with the required regulatory process.⁷¹⁴

⁷¹² In Exhibit 11.5, micro-level intra-component planning is represented in each of the five circles and the linkages to other components is represented in the two-sided arrows, indicating two way interactive linkages.

⁷¹³ For example, the physical-functional planning sub-process focuses on physical-functional issues like land use planning and urban design, and the environmental planning sub-process focuses on environmental issues.

⁷¹⁴ As in the environmental site remediation approval sub-process that was added to the traditional project regulatory planning approval process, the proposed multiple component integrative planning framework will additionally include a social, economic, and political-organizational planning approval sub-processes. Also, the environmental approval sub-process will be addressed in its comprehensive definition rather than focusing on only environmental site remediation approval sub-process. The existing public approval authority team as well as the developer's team already include the required planning and related disciplines. What is missing the re-organization of the overall planning process including its multi-disciplinary context.

Interactive Problem Components that Require Integrative Planning that is Based on Addressing Intra-component and Inter-component Linkages

The multiple component integrative planning approach is based on addressing the main linkages (intra-component and inter-component) of the problem context and pertinent planning sub-processes. The existence and importance of linkages may vary according to the conditions of the project context. Accordingly, contextual analysis should aim at delineating important linkages and their relative values in order to allow for proper integrative planning. Some of the main linkages revealed by the empirical case study research include the following:

- Legal Liability of Contamination – Cost of Site Remediation – Proposed Land Uses (Environmental – Economic – Physical Interactive Linkages) (**All Case Studies**)
- Site Remediation Process – Stakeholders’ Objectives - Development Approval Process (Environmental – Political – Physical Interactive Linkages) (**All Case Studies**)
- Environmental Contamination – cost of Site Remediation- Stakeholders’ Objectives (Environmental - Economic - Political Interactive Linkages) (**All Case Studies**)
- Project Feasibility - Building Density - Social Housing - Stakeholders’ Objectives (Economic-Physical/Density-Social/Socioeconomic-Political) (**G&W, Toronto; Cooksville, Mississauga**)
- Proposed Site Functions – Surrounding Uses & Vision – Stakeholders’ Interests & Views (Physical/Functional – Physical/Functional “Macro-Level” – Political) - (**PCD Project, Toronto**)
- Heritage Value – Building Density – Project Feasibility – Stakeholders’ Objectives (Physical/Heritage – Physical/Density – Economic - Political) – (**WHDS, Hamilton**)

The above represent sample series of interactive linkages which may be applicable to more than one case study. In a given project, all main linkages should be considered in the planning process in order to achieve success. The findings of empirical research indicate that not properly addressing main linkages may contribute to project failure as in the case of the PCD project in Toronto and WHDS in Hamilton (the above last two series of linkages). The importance of addressing main linkages among components also highlights the importance of addressing multiple component integrative planning in order to avoid missing potential linkages.

Multiple Stakeholders with Conflicting Objectives, Values and Vision – Stakeholders’ Collaboration & Partnership is Needed to Achieve a Successful Project

The project development approval process represents the organizational set-up for stakeholders’ involvement in the planning process. The planning context for brownfield redevelopment includes multiple stakeholders that may have varying and conflicting interests, objectives and vision. The primary stakeholders include the project developer/owner and his team of consultant, the public approval authority and their team, as well as local community residents and interest groups who are primarily involved in public consultation meetings, workshops, and open houses. Essentially, there are two main poles for the project planning processes that are performed

simultaneously. The first is performed by the project developer and his team, and the second is performed by the public approval authority (mainly municipality) with the two processes meeting at the development approval process.

The research findings indicate that a form of stakeholders' collaboration and partnership is necessary for successful brownfield redevelopment. This may include public-public, public-private, and public-private-community collaboration and partnership. Public involvement and support is instrumental, especially in the first phase of site remediation. This can be in the form of public financial and/or political support. The second phase of site redevelopment can be the responsibility of the private sector or a form of public-private partnership.

Findings of empirical research also highlight the importance of community involvement and support for successful projects. Successful case study projects (G&W and Cooksville Quarry) maintained proper involvement of community residents and interest groups. While in unsuccessful case study projects, there were unresolved conflicts between local residents and interest groups with the project developer which contributed to their failure.⁷¹⁵ It is important to note that decision making power in the redevelopment process is polarized at two main poles, the project developer and the public approval authority. While the local community can only express their opinion at the public consultation process. Local community objectives are traditionally sought through the powers of the public approval authority in the development approval process. This condition represents a source of imbalance against the local community which results in the mentioned conflicts. The ideal condition is to have some leverage for the local community in planning decision making power in order to get a fair tradeoff in achieving their objectives.

Conflicts among stakeholders' objectives, values and visions rotate around the main issue of the public interest versus developer's interests and objectives. According to the empirical case studies, the main conflicts were city versus developer, in addition to community and interest groups versus developer. A form of trade-off is required for conflict resolution and to come into an agreement. The final development agreement between the city and the developer is a form of tradeoff regarding conflicting issues like heritage conservation and provision of public benefits

⁷¹⁵ In the PCD project in Toronto, there was conflict between local business groups and residents with the developer TEDCO. In the beginning of the WHDS project in Hamilton, there was good collaboration and involvement of local resident and interest groups through their representation at the Steering Committee of the stakeholders' team organization. However, this condition was not maintained throughout the process and the City finalized the physical urban design concept plan and the local residents were not satisfied. There was conflict with the City that was not resolved and led to project failure.

in exchange of certain bonus to the developer. In general, stakeholders' collaboration and partnership (public-private-community) creates a favourable condition for conflict resolution.

Multiple Component & Mixed Rationality Comprehensive Planning

As outlined earlier, the multiple component planning process includes planning sub-processes at component (or sub-component) level. Planning sub-processes represent certain discipline(s) that follow the rational decision making model at the component (or sub-component) level. However, the overall process is complex and includes mixed rationalities in terms of having multiple components and related disciplines as well as including multiple stakeholders with varying objectives and visions. Accordingly, the mixed rationality is represented by the various disciplines and their pertinent physical, environmental, economic, social and political rationalities. This includes both the multiple technical rationality within those disciplines as well as the non-technical socio-political rationality represented by the values, objectives and visions of various stakeholders that do not necessarily have technical planning expertise. This mixed rationality context requires multi-disciplinary multi-stakeholder collaborative planning process.

In a way, the proposed multiple component integrative planning framework attempts to deconstruct the complex problem context of brownfield site redevelopment into meaningful components in order to allow for developing rational planning sub-processes at the component level and then to reconstruct the overall plan by integrating the multiple planning sub-processes. The proposed planning framework addresses comprehensiveness in planning in terms of integrating multiple components, multi-spatial levels, multi-stakeholders' objectives, as well as addressing short term and long term planning vision in an incremental and adaptive mode.

12.2 BRIEF NOTES & RECOMMENDATIONS FOR FUTURE RESEARCH

The following notes and recommendations are directions for further research:

- **The proposed multiple component integrative planning framework is an introduction to a theoretical and applied approach for brownfield redevelopment in specific and possibly for planning in general.** Further research is required to verify and delineate the parameters of the proposed framework and to derive the means of applying it in the real world.
- **The proposed planning framework is primarily recommended for application by the public sector approval authority and to be incorporated within the development approval**

process. The multiple component planning sub-processes and achievement of their objectives have to be considered in the development approval process.

Currently, the development approval process is focused on the functional-physical component (land use planning and zoning), and partly on environmental site remediation. The other components and their pertinent sub-processes (social, economic, and political-organizational, in addition to environmental issues other than site remediation) have to be included as well.

- **Also, the proposed planning framework is recommended for application by the private sector developer and their consulting team.** If the proposed planning framework is incorporated in the development approval process, then the developer will have to comply with the same framework. Currently, the planning process by the project developer and his team is biased toward the economic component since it is the developer's primary objective.

- **Research findings reveal the importance of stakeholders' collaboration and partnership as a cornerstone to the proposed planning framework.** Further research is needed to study the different forms of public-private and public-private-community partnerships.

- **Research findings also reveal the importance of community involvement and support in the process.** Further research is needed on how to foster community support and to increase decision making leverage for the local community in the planning process.

Planning decision making power is currently polarized at two main poles – the project developer and the city public approval authority. The footings of decision making power need to be more in the form of a tripod (city-developer-community) rather than a bi-pod (city-developer).

- **The proposed policy directions** (concluded in Section 12.1.2) **are at a conceptual stage.** More research is required for their development into implementable policy plans in a given context.

- **Research findings reveal potential viability of the policy direction of tax increment/equivalent financing (TIF/TIEF) to cover the cost of site remediation. This policy direction can be used as a tool by the public sector (or quasi-public) as well as by a public-private partnership.** Further research is required to develop this policy plan to be easily applicable within the Canadian context. The organizational and regulatory obstacles need to be addressed and resolved.

- **The proposed list of main problems and policy directions** (outlined in Exhibits 11.2 and 11.3) **can be used as the basis for developing generic planning indicators (or evaluation**

criteria) for evaluating brownfield redevelopment projects (new and existing). Research findings reveal that the relative value of these indicators may vary according to project context.

- **The proposed integrative planning framework requires more use and understanding of design in planning including design themes and methodologies.** More research is required in the field of design in planning to achieve this objective. The proposed planning framework is integrative in terms of addressing and linking multiple components, multiple disciplines, multiple spatial contexts, multiple stakeholders with varying objectives, as well as multiple time spans.

- **It is important to address “Time and Timing” as an interactive planning component in the process.** It is usually not well focused on in the process.⁷¹⁶ This component includes time period as a resource and cost item that is available and feasible for the approval process, each planning stage and the overall planning process. Also included is the timing of decisions and actions taken on “*doing what and when*” like phasing of implementation and prioritization. Further research is required on this component and its linkages to the planning process.

- **This research is characterized as being more horizontal (greater in breadth), addressing multiple component planning, rather than the traditional vertical research (greater in depth) that addresses more specific issues usually within a single component.** Horizontal research focuses more on the connectivities/linkages among components which is an important issue in a field like brownfield redevelopment in specific and planning in general. In essence, horizontal research is in a way utilizing and bridging the findings of the various vertical researches within different components. More research is needed to develop the concept of horizontal research in order to define its vocabulary and construct of its validity as well as defining how it can function integratively with vertical research. Ultimately, the definition of horizontal research needs to be academically acceptable as well as viable for application in the real world.

Finally, any research is not an end by itself but an evolutionary continuum that needs to be developed over time. However, a specific research should at least respond to the pertinent research questions and achieve the research objectives, which I hope they are fulfilled in this research thesis.

⁷¹⁶ This is also the case in this research. The “Time and Timing” component emerged during the later stages of the research process.

APPENDICES:

CHAPTER TWO: Problem Context & Planning Issues Associated with Blighted/Contaminated Industrial Sites (Brownfields)

- Appendix A2.1 Analysis of Favorable Circumstances for the Redevelopment of Blighted/Contaminated Industrial Sites

CHAPTER THREE: Contribution of General Planning Theory & Related Theories

- Appendix A3.1 Contribution of General Planning Theory
Appendix A3.2 Contribution of Related Interdisciplinary Theories

CHAPTER FIVE: Empirical Research Methodology and Process

- Appendix A5.1 Key Participants' Interviews – List of Names and Title
Appendix A5.2 Key Participants' Interviews – Questionnaire Package
Appendix A5.3 Rationale for Selecting Empirical Case Studies within Medium and Large Scale Urban Settings

CHAPTER SIX: Case Study One – Gooderham & Worts Project, Toronto

- Appendix A6.1 Impact Evaluation of Problems and Issues (Key Participants' Interviews, Exhibit 6b)
Appendix A6.2 Impact Evaluation of Policy Directions (Key Participants' Interviews, Exhibit 7b)

CHAPTER SEVEN: Case Study Two – Port Centre Development Project, Toronto

- Appendix A7.1 Impact Evaluation of Problems and Issues (Key Participants' Interviews, Exhibit 6b)
Appendix A7.2 Impact Evaluation of Policy Directions (Key Participants' Interviews, Exhibit 7b)

CHAPTER EIGHT: Empirical Case Study Three – Cooksville Quarry, Mississauga

- Appendix A8.1 Impact Evaluation of Problems and Issues (Key Participants' Interviews, Exhibit 6b)
Appendix A8.2 Impact Evaluation of Policy Directions (Key Participants' Interviews, Exhibit 7b)
Appendix A8.3 Official Plan and Existing Zoning Designations and Required Amendments

CHAPTER NINE: Empirical Case Study Four – WHDS & Bayfront Park, Hamilton

- Appendix A9.1 Impact Evaluation of Problems and Issues (Key Participants' Interviews, Exhibit 6b)
Appendix A9.2 Impact Evaluation of Policy Directions (Key Participants' Interviews, Exhibit 7b)

CHAPTER TEN: Cross Case Study Comparative Analysis & Conclusions

- Appendix A10.1 Main Linkages between the Environmental Site Remediation Sub-process and other Sub-processes
Appendix A10.2 Main Linkages between the Environmental Site Remediation Planning Sub-process and other Planning Sub-processes
Appendix A10.3 Main Linkages between the Economic Planning Sub-process and other Planning Sub-processes
Appendix A10.4 Main Linkages between the Social Planning Sub-process & other Planning Sub-processes
Appendix A10.5 Common Patterns that Characterize the Political Planning Sub-process
Appendix A10.6 Common Patterns for Stakeholders Responsibility versus Project Implementation Phasing

Appendix A2.1: List of Case Studies in the U.S.A, U.K. & Canada Representing Blighted Industrial Site Reuse & Redevelopment

A2.1.1: U.S. Case Studies

1. Pure Oil and Gas Farm Project - Minneapolis, Minnesota
2. Soo Line Rail Yard - Minneapolis, Minnesota
3. Wilensky Salvage Yard - Minneapolis, Minnesota

(Bartsch & Collaton, 1997; Schwartz, 1995)
4. U. S. Repeating Arms Complex - New Haven, Connecticut.
5. BF Goodrich Plants - Akron, Ohio
6. AES Business Campus - Akron, Ohio
7. Sears in Lawndale - Chicago, Illinois
8. Uniroyal Tire Factory - Commerce, California
9. Avtex Synthetic Fiber Plant - Meadville, Pennsylvania
11. World Class Steel, Inc. - Ambridge, Pennsylvania
11. Lone Star Steel Comp. Plant - Fort Collins, Colorado
12. Williams Air Force Base - Mesa, Arizona

(Bartsch & Collaton, 1997)
13. The Fort Worth Stockyards - Fort Worth, Texas (Bright et al, 1995)
14. The Charlestown Navy Yard – Boston, Massachusetts (Gordon, 1997)
15. The Industri-plex Site in Woburn, Massachusetts (Brooks, 2006: 229)

A2.1.2: British Case Studies

1. Regenerating Industrial River Sides in N.E. England Tyne and Wear Development Corp. (TWDC),
 - 1.1 New Castle Business Park
 - 1.2 Central Quayside
 - 1.3 Hanover Hanging Gardens
 - 1.4 St. Peter’s Basin
 - 1.5 Walker Riverside Park
 - 1.6 Walker Offshore Technology Park
 - 1.7 Little Haven
 - 1.8 Hylton Enterprise Park
 - 1.9 Deptford Shipyard

(MacPherson, 1993)
2. A Sub-Regional Economic Development Initiative: The Leeds and Liverpool Canal Corridor Project.
 - 2.1 Clayton Industrial Park
 - 2.2 Blackburn Waterside

(Tattersall, 1993)
3. Salford Quays 1: The Context (Law & Grime, 1993)

Salford Quays 2: Development & Planning Procedures (Hindle, 1993)

Salford Quays 3: The Urban Design ... (Pidwill, 1993)
4. The London Docklands, (Gordon, 1997)

A2.1.3: Canadian Case Studies

1. Toronto
 - 1.1 The Ataratiri Area (City of Toronto, 1991; Allester, 1992, NRTEE & CMHC, 1997a)
 - 1.2 Toronto Harbourfront (Gordon, 1997; Royal Commission, 1992)
 - 1.3 The Port Industrial District - Port Centre Development - Toronto Hydro (City of Toronto TEDCO, 1996; Munson, 1990; Royal Commission, 1992)
 - 1.4 The Gooderham & Worts Complex (Toronto, 1994, Poplack, 1997)
2. Montreal
 - 2.1 The Lachine Canal Revitalization Program (London, 1998; NRTEE & CMHC 1997a; Bliet & Gauthier, 2007)
 - 2.2 Sporadic industrial reuse (Germain & Lessard, 1989)
3. Vancouver
 - 3.1 Pacific Place (Former Expo 86 Site) (NRTEE & CMHC 1997a)
4. Mississauga
 - 4.1 Cooksville Quarry/Brick Factory (Jannock Properties, 1998a; NRTEE & CMHC 1997a)
5. Kitchener
 - 5.1 The Breithaupt Street Industrial Area (City of Kitchener, 1994; Schultz & Curtis, 1996) (Dillon Associates, 1988).
 - 5.3 Sporadic cases (City of Kitchener, 1997)
6. Waterloo
 - 6.1 Seagram Site, (City of Waterloo, 1996)
7. Guelph
 - 7.1 IMICO Site, (City of Guelph, 1998)
8. Hamilton
 - 8.1 West Harbourfront Development Study (City of Hamilton, 1995)
 - 8.2 Bayfront Park (City of Hamilton, 1995)

Planning for Reuse and Redevelopment of Inner City Blighted/Contaminated Industrial Sites (Brownfields)

Analysis of Case Studies in the U.S., U.K., and Canada

Appendix A2.1: Favorable Circumstances for the Reuse of Blighted Contaminated Industrial Sites	Case Studies																
	U.S.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
A2.1.1: Project Financing and Redevelopment Incentives	U.K.	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	3	4	
	Can.	1.1	1.2	1.3	1.4	2.1	3.1	4.1	5.1	6.1	7.1	8.1	8.2				
• Availability of public start-up funding to prepare blighted/contaminated sites for redevelopment.	U.S.	x	x	x	x		x		x	x			x	x		x	
	U.K.	x	x-----x										x	x----x		x	x
	Can.	(x)	(x)	x		x			(x)				x				
• Accessibility to government programs (grants) that can foster the redevelopment process.	U.S.	x	x	x	x		x		x	x		x	x	x	x		
	U.K.	x	x-----x										x	x----x		x	x
	Can.	(x)	(x)			x			(x)				x				
• The existence of a self-financing mechanism (e.g. TIF) that has a continuous rolling effect on revitalizing other blighted and declining industrial sites.	U.S.	x	x	x			x										
	U.K.											x	x	x			
	Can.																
• Availability of low-interest rate loans for private developers and investors.	U.S.	x	x	x	x					x	x		x	x			
	U.K.																
	Can.																
• Availability of government funds for backing the redevelopment process in critical times.	U.S.				x		x			x			x	x	x		
	U.K.	x	x-----x										x	x----x		x	x
	Can.					x											
• The sites within special district zoning (e.g. Enterprise Zones) are provided with tax and/or redevelopment incentives	U.S.																
	U.K.	x	x								x		x		x		
	Can.		x		x	x			x		x						

Planning for Reuse and Redevelopment of Inner City Blighted/Contaminated Industrial Sites (Brownfields)

Analysis of Case Studies in the U.S., U.K., and Canada

Appendix A2.1 (Cont.): Favorable Circumstances for the Reuse of Blighted Contaminated Industrial Sites	Case Studies																
U.S.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
A2.1.2: The Role of the Government Authorities, the Private Sector and Community Residents	U.K.	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	3	4	
	Can.	1.1	1.2	1.3	1.4	2.1	3.1	4.1	5.1	6.1	7.1	8.1	8.2				
<ul style="list-style-type: none"> The existence of a specialized government authority, that is directly responsible for action on blighted sites. 	U.S.	x	x	x							x		x	x	x		
	U.K.	x	x-----x									x	x-----x		x	x	
	Can.		x	x		x											
<ul style="list-style-type: none"> Collaboration and partnership among the different level government agencies. (Public- public collaboration). 	U.S.		x	x	x		x	x	x	x		x	x		x		
	U.K.	x	x-----x									x	x-----x		x	x	
	Can.	x	(x)			x	x	x					x				
<ul style="list-style-type: none"> Collaboration and partnership between the public sector and the private sector (public- private). 	U.S.												x		x		
	U.K.	x	x-----x									x	x-----x		x	x	
	Can.	x	x	x	x	x	x	x									
<ul style="list-style-type: none"> Collaboration among the public sector, private sector and community groups (public- private- community). 	U.S.				x			x	x	x	x		x	x		x	
	U.K.											x	x-----x				
	Can.			x	x	x	x	x				x	x				
<ul style="list-style-type: none"> Commitment of the stakeholders for project success. 	U.S.				x	x		x				x		x		x	
	U.K.											x					
	Can.	x	x	x	x	x	x	x					x				
<ul style="list-style-type: none"> Owner/ developer case facilitates decision making & the overall process. 	U.S.					x		x				x					
	U.K.				x		x				x						
	Can.				x	x	x	x					x				

Planning for Reuse and Redevelopment of Inner City Blighted/Contaminated Industrial Sites (Brownfields)

Analysis of Case Studies in the U.S., U.K., and Canada

Appendix A2.1 (Cont.): Favorable Circumstances for The Reuse of Blighted Contaminated Industrial Sites	Case Studies															
	U.S.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A2.1.3: Environmental Concerns and the legal Liability of site clean-up cost	U.K.	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	3	4
	Can.	1.1	1.2	1.3	1.4	2.1	3.1	4.1	5.1	6.1	7.1	8.1	8.2			
• Definition of Liability for contamination clean-up cost.	U.S.	x	x	x					x	x						x
	U.K.	n.a														
	Can.	n.a		x	x		x	x			x		x			
• Conditional lift of future liability on new purchasers of already cleaned-up sites.	U.S.		x	x												x
	U.K.	n.a														
	Can.	n.a					x									
• Environment contamination problems and remediation are to be addressed and resolved in the beginning of the process.	U.S.	x		x				x		x		x				x
	U.K.	x							x	x						
	Can.			x	x	x	x	x					x			
• Contaminated sites that are within a governmental inventory priority list may have access to government funds and assistance.	U.S.	n.a														x
	U.K.	n.a														
	Can.	n.a				x							x			
	U.S.															
	U.K.															
	Can.															

Planning for Reuse and Redevelopment of Inner City Blighted/Contaminated Industrial Sites (Brownfields)

Analysis of Case Studies in the U.S., U.K., and Canada

Appendix A2.1 (cont.): Favorable Circumstances for The Reuse of Blighted/Contaminated Industrial Sites	Case Studies																
	U.S.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
A2.1.4: Project Marketability	U.K.	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	3	4	
	Can.	1.1	1.2	1.3	1.4	2.1	3.1	4.1	5.1	6.1	7.1	8.1	8.2				
<ul style="list-style-type: none"> Availability of potential resources within the site or area that may attract investors/ developers (Historic value, Natural heritage, riverfronts, existing facilities). 	U.S.					x	x		x			x	x	x		x	
	U.K.	x	x-----x										x				
	Can.	x	x	x	x	x							x	x			
<ul style="list-style-type: none"> Securing developer (s) and tenants in the early stages together with the site clean-up process completes the redevelopment and marketing package). 	U.S.						x		x		x					x	
	U.K.										x				x		
	Can.	x	x	x	x	x	x	x									
<ul style="list-style-type: none"> Identifying an existing demand for certain uses, renewed economic activity in the area/ region. 	U.S.					x			x		x		x			x	
	U.K.	x															
	Can.	x	x	x	x	x					x						
<ul style="list-style-type: none"> Proximity to the City Core area (CBD). 	U.S.															x	
	U.K.																
	Can.	x	x	x	x	x	x	x	x		x	x	x				
<ul style="list-style-type: none"> Accessibility to major transportation routes like expressways, railroads, rivers. 	U.S.										x		x			x	
	U.K.	x													x		
	Can.	x	x	x	x	x	x	x	x			x	x				
<ul style="list-style-type: none"> Availability and identifying linkages among interrelated development functions. 	U.S.	x			x								x			x	
	U.K.	x								x							
	Can.		x	x	x	x						x					

Planning for Reuse and Redevelopment of Inner City Blighted/Contaminated Industrial Sites (Brownfields)

Analysis of Case Studies in the U.S., U.K., and Canada

Appendix A2.1 (cont.): Favorable Circumstances for the Reuse of Blighted Contaminated Industrial Sites	Case Studies															
	U.S.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A2.1.5: The Planning Process, and a Clear Vision	U.K.	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	3	4
	Can.	1.1	1.2	1.3	1.4	2.1	3.1	4.1	5.1	6.1	7.1	8.1	8.2			
• Having a clear vision/ plan for the project.	U.S.					x			x							x
	U.K.	x														
	Can.	x		x	x	x	x	x					x			
• Commitment to planning especially in dealing with large sites or area redevelopment.	U.S.								x				x			x
	U.K.	x	x-----x									x	x----x		x	x
	Can.	x	x	x	x	x	x	x	x			x				
• The possibility of adopting a gradual phasing strategy for redevelopment especially for large sites or partially contaminated.	U.S.		x			x			x							x
	U.K.															
	Can.	x	x	x	x	x	x	x			x					
• Adopting a strategy for implementing small projects first then the bigger projects.	U.S.															
	U.K.	x										x				
	Can.		x		x	x							x			
• Sites within an overall redevelopment area have an interactive advantage with the whole redevelopment projects.	U.S.													x		x
	U.K.		x-----x										x----x			
	Can.	x		x	x	x					x		x			

Planning for Reuse and Redevelopment of Inner City Blighted/Contaminated Industrial Sites (Brownfields)

Analysis of Case Studies in the U.S., U.K., and Canada

Appendix A2.1 (cont.): Favorable Circumstances for The Reuse of Blighted Contaminated Industrial Sites.	Case Studies															
	U.S.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A2.1.6 Functional Themes for Site Reuse Prevailing Reuse Functional Themes	U.K.	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	3	4
	Can.	1.1	1.2	1.3	1.4	2.1	3.1	4.1	5.1	6.1	7.1	8.1	8.2			
<ul style="list-style-type: none"> • Tourism, Parks and Recreation <ul style="list-style-type: none"> - Hotels, garden festivals, parks, water recreation, sports. - Historic preservation, natural and cultural heritage. 	U.S.													x		
	U.K.	x			x		x					x		x		
	Can.		x	x	x	x						x	x			
<ul style="list-style-type: none"> • Mixed-use Redevelopment <ul style="list-style-type: none"> - Commercial, offices, hotels (Commercial-C) - Primarily Residential (Residential-R) - Residential, commercial, office, recreation (Residential/Commercial-RC) 	U.S.							R	C						R	C
	U.K.	RC		C		R			R		R	RC		R	R	R
	Can.	R	R	C	R	R	RC	RC	R		RC	RC				
<ul style="list-style-type: none"> • Business Parks <ul style="list-style-type: none"> - Industrial, commercial business and corporate offices - Science/Technology Park. - Business incubators within a business park. 	U.S.				x	x				x						x
	U.K.	x	x					x		x	x	x	x		x	
	Can.					x										
<ul style="list-style-type: none"> • Individual Business incubators. <ul style="list-style-type: none"> - Small business enterprises. 	U.S.		x	x			x					x				
	U.K.	x										x				
	Can.															
<ul style="list-style-type: none"> • Educational, Research & Development <ul style="list-style-type: none"> - R&D facilities - Education and Training. 	U.S.	x			x					x			x			
	U.K.	x														
	Can.															
<ul style="list-style-type: none"> • Other Functions <ul style="list-style-type: none"> - Steel manufacturing (heavy industry) - Civilian airport. 	U.S.										x		x			
	U.K.															
	Can.															

Appendix A3.1: Contribution of General Planning Theory

Theory - Model	Main Themes, Characteristics, and Assumptions	Contributions to this Research – Potential Inputs & Linkages
<p>1. Rational Comprehensive Planning</p> <p>Alexander, 1992; Hudson, 1979; Briassoulis, 1989; Friedmann, 1987 & 2003 Beauregard, 2003 Campbell & Fainstein, 2003; Hodge & Gordon, 2008; Brooks, 2002</p>	<ul style="list-style-type: none"> • Use of scientific principles, survey methods, and analytical tools • A deterministic positivist approach • A systems perspective where individual problems and issues are interrelated and using conceptual or mathematical models in establishing relationships. • To consider the full array of relevant variables and alternatives. • Long-term planning and commitment (e.g., master plans). • Planners are technical experts in the planning process • Application of instrumental/technical rationality requiring a systematic consideration and evaluation of alternative means to achieve preferred goals. • All alternatives have to be developed and evaluated simultaneously. • This planning model/theory was criticized for being too complex, top-down decision-making approach reflecting the values of planners and executive decision makers (public or private), and uncertainty is not addressed explicitly. 	<ul style="list-style-type: none"> • Scientific principles are intensively applied in the initial stage of site environmental remediation, which can be considered as a sub-process following the rational decision model within the overall planning for reuse and redevelopment. • The notion of comprehensiveness in total vision and in considering the interactive problem components of industrial blight and strategies like environmental contamination and legal liabilities, financing & feasibility, collaboration and partnership among stakeholders. • The application of mixed rationality mainly substantive (collective group values) in addition to the instrumental/technical rationality in certain areas like site cleanup and decontamination. • The systems perspective is relevant in the reuse of a holistic view and linkages among components.
<p>2. Incremental Planning (Disjointed)</p> <p>Lindblom, 1959,1973, 2003; Alexander, 1992; Briassoulis, 1989; Friedmann, 1987; Brooks, 2002; Campbell & Fainstein, 2003;</p>	<ul style="list-style-type: none"> • Streamlined approach, which retains the concept of the planner as a technical expert • Incremental in nature and based on the notion of satisficing. • Disjointed, uncoordinated, piecemeal approach. • "successive limited comparison" among alternatives and reducing evaluation to their marginal difference (Lindblom, 1973: 155). • Represents a shift from the positivist to a normative approach. • It was criticized for fragmentation and lacking an overall context, biased to the interests of the powerful, and being more short-term than promoting future societal goals. 	<ul style="list-style-type: none"> • The notion of incrementalism can be applied but in an integrated and adaptive way by phasing the redevelopment process. Also, incrementalism can be applied in implementing the redevelopment process in packages starting with the more viable parcels first and progressively work out the other packages. • The notion of a normative approach to planning implies an emphasis on norms and contextual values, which is relevant to my research.
<p>3. Mixed Scanning</p> <p>Etzioni, 1973; Alexander, 1992; Brooks, 2002;</p>	<ul style="list-style-type: none"> • Combining the comprehensive view and incrementalism with emphasis on key issues and relationships. • Two levels of decision making: <ul style="list-style-type: none"> - the lower , more operational level that focused on the key elements and that could be undertaken in the "incremental mode" - the higher level, by scanning the broader & more strategic vision • A middle approach between R.C.P. and Incremental planning • Context contingent approach • Macro-level and micro-level contexts of planning • Planner is still a technical expert the planning process is centralized 	<ul style="list-style-type: none"> • This approach combines the notions of a comprehensive vision with the progressive incremental mode that also characterize the reuse and redevelopment process of blighted industrial sites. In other words, it combines the tactical management issues with the basic strategic choices. • The notion of being context contingent and combining the macro-level (overall) and the micro-level (site specific) is directly related.

Appendix A3.1 (Cont.): Contribution of General Planning Theory		
Theory - Model	Main Themes, Characteristics, and Assumptions	Contributions to this Research – Potential Inputs & Linkages
<p>4. Contingency Planning</p> <p>Briassoulis, 1989;</p>	<ul style="list-style-type: none"> • Coping with uncertain environmental conditions, natural or human origin. • Emphasis on aspects of problems whose unexpected occurrence may have severe adverse consequences. • Preparing contingency measures in case of emergency • Applied in areas prone to natural hazards and cases of human-induced disasters. • Inclusion of mitigation plans. • A question remains: whether post-disaster costs are actually less than the costs of careful pre-disaster planning. 	<ul style="list-style-type: none"> • The notion of contingency planning in human-induced hazards is to a certain extent similar to contaminated sites and remediation measures. This explains the legal liability risks and its perception by all stakeholders. However, it is important to note that raising the contamination issue to the level of a disaster may increase the perceived risks and thus may increase the redevelopment barriers. • The comparison between the costs of proactive measure, versus reactive measures.
<p>5. Transactive Planning (Participatory)</p> <p>Friedmann, 1987, 1995, 2003 Briassoulis, 1989; Alexander, 1992; Litchfield, 1996;</p>	<ul style="list-style-type: none"> • Focus on socio political context & residents involvement in planning • Planning as a social practice linking collective knowledge to action in a social learning context. • Democratic participation of local task-oriented action groups. • The role of the planner and each member of the group is both as the actor and learner in the process. • Collective decision-making. • Interactive and cumulative social learning process through the intact experience and face-to-face contact, including both cognitive and experiential aspects of learning. • Emphasis on processes of personal and organizational development for concerned parties and their involvement in the planning process. 	<ul style="list-style-type: none"> • Collective decision making contexts among stakeholder and linking different types of knowledge to action (cognitive and experiential) • Planning as a collective social learning process • Residents involvement in planning decision making is applied in redeveloping blighted sites within or near residential neighborhoods • The notion of organizational development of concerned parties is relevant to stakeholders collaboration and partnership
<p>6. Collaborative Planning (Communicative Theory)</p> <p>Innes, 1995, 1996, 1998,1999; Alexander, 1992; Briassoulis, 1989; Healey, 2003; Campbell & Fainstein, 2003;</p>	<ul style="list-style-type: none"> • This is a build-up on the transactive/participatory model • Emphasis on communicative rationality and the importance of different types of information. • Stakeholder collaboration and consensus building • Through dialogue, participants bring their experiences, ideas, methods, and scenarios that they can imagine and collectively piece them together to create a strategy on which all agree (consensual thinking) • Participants play out scenarios and take on different roles similar to the cooperative role-playing game. • The method of knowing involves several elements: <ul style="list-style-type: none"> - Self-reflection to identify one's own rationalization - Emancipatory knowing comes from discourse or dialectic - Knowing comes through praxis 	<ul style="list-style-type: none"> • This is a continuation and build-up on the transactive/participatory model with extra emphasis on communicative theory. • The notion of collaboration and consensus building is relevant to the collaboration and partnership at various levels (public-public, public-private, and public-private-community). • The importance of collective discourse to knowing, conception, and consensus building in the context of land use planning in general and reuse and redevelopment planning in specific.

Appendix A3.1 (Cont.): Contribution of General Planning Theory

Theory - Model	Main Themes, Characteristics, and Assumptions	Contributions to this Research– Potential Inputs & Linkages
<p>7. Advocacy Planning & Equity Planning</p> <p>Davidoff, 1965, 1973, 2003; Arnstein, 1969; Krumholz, 2003; Krumholz & Forester, 1990; Friedmann, 1987; Alexander, 1992; Brooks, 2002</p>	<ul style="list-style-type: none"> • Applying the principles of social equity and social justice. • Increasing accessibility to opportunities (e.g. jobs) for the vulnerable and disadvantaged groups. • Human investment approaches to upgrade the educational/skill levels and organizational issues to bridge the gap and increase accessibility. • Integration of physical planning and organizational processes. • A combination of planning as social learning & social mobilization. • Community participation and active involvement in the process. 	<ul style="list-style-type: none"> • The notions of social equity and social justice have relevance to the negative impacts of blighted sites on surrounding residential neighborhoods. • In some cases local residents used to be ex-workers in the shutdown industrial plants and then unemployed. • In general the local residents of the area especially the unemployed and disadvantaged should have a share and access to the new opportunities. • Local community involvement and participation
<p>8. Ecological Planning, Ecosystem Approach to Planning & Sustainability</p> <p>McHarg, 1969; Slocumbe, 1993; Alexander, 1992; Kaiser et al, 1995; Nelson & Serafin, 1996; Royal Commission, 1992; Campbell, 2003; Hodge & Gordon, 2008</p>	<ul style="list-style-type: none"> • Based on ecological principle (ecosystem health and biodiversity) • An inherent inclination toward the human-natural setting (explicitly or implicitly). • Recognition of mutual interrelationship among natural, human, and social systems and employing ecological concepts and tools. • To maintain the integrity of natural systems (ecosystems) in the context of balancing human actions and natural processes. • An ecosystems perspective to planning. • Science based approach. • Holistic and multidisciplinary in nature, seeking to integrate the biophysical and socioeconomic settings to achieve sustainability. 	<ul style="list-style-type: none"> • The importance of ecosystem health & balance is crucial as in the remediation of environmental contamination. • The concept of integrating the biophysical and socio economic settings to achieve sustainability is relevant to the notion of integrating the physical, environmental economic, social, and political components of blighted industrial sites by reconstructing the main linkages and resolving interactive problems. • Ultimately, the notion is how to combine all values in a collective social, economic, & environmental feasibility.
<p>Emerging Planning Model</p>		
<p>9. Multi-disciplinary Integrated Planning</p> <p>Briassoulis, 1989; Kaiser et al, 1995; Margerum, 1997; Slocumbe, 1993; Campbell; 2003; Hodge & Gordon, 2008</p>	<ul style="list-style-type: none"> • An evolving planning paradigm that is in the direction of an amalgamation and integration of main stream planning with planning in the socio-political and ecological contexts • A hybrid model that is contingent on the context of application • Combines the various sectors • Characterized as being holistic, collaborative, interconnected, goal-oriented, multi-disciplinary and strategic • An inclination back to the notion of comprehensive planning characterized by the application of instrumental and substantial (group) rationality, stakeholder collaboration and partnership and collective decision-making • Integration among components of planning as well as micro- and macro-levels of planning 	<ul style="list-style-type: none"> • This is basically the hybrid-planning model that is pertinent to the reuse and redevelopment process of blighted industrial sites. • This approach is contingent on the contextual components and linkages among components. • The notion of applying mixed rationality (instrumental and substantial group rationality) in the context of stakeholder collaboration and partnership with different values and goals. • The notion of micro-level planning and macro-level comprehensive vision (strategic) is relevant to the site reuse/redevelopment process.

Appendix A3.2: Contributions of Applied Planning and Other Relevant Interdisciplinary Theories		
Theory - Concept	Main Themes, Characteristics, and Assumptions	Contributions to this Research – Potential Inputs & Linkages
Urban Geography		
<p>1. Restructuring of Industrial Activity</p> <p>Bourne, 1982, 1991; Jakle & Wilson, 1992; Stafford, 1982; Yeates, 1998; Broadway, 1995; Fillion & Bunting, 1993, 2006</p>	<ul style="list-style-type: none"> • Spatial restructuring of industrial activity is exemplified in the suburbanization and decentralization of manufacturing industry (deindustrialization) resulting in the obsolescence and/or abandonment of the old traditional industrial activities within the inner city (Bourne, 1982; Jakle & Wilson 1992; Stafford, 1982; Yeates, 1998). • Economic restructuring of industrial activity in the post-industrial city resulted in a shift from the manufacturing sector to the tertiary sector (services) and to quaternary functions (offices) (Bourne, 1991: 187; Stafford, 1982:81). The inner city has been more attractive for the service industry and office functions than for the manufacturing industry (Stafford, 1982: 81; Yeates, 1998). 	<ul style="list-style-type: none"> • General perspective for the dynamics of the industrial function and future potential • This helps in the definition of the problem context of industrial blight within the inner city and the resulting abandoned industrial sites. • This gives a perspective for the changing functional base of the inner city from manufacturing to services and thus helps in the direction of potential functions that are more viable within the inner city.
<p>2. Inner City Decline and Regeneration:</p> <p>Bourne (1982: 235) outlines eight hypotheses for explaining inner city decline:</p>	<ul style="list-style-type: none"> • Natural Evolution: ecological succession and down filtering • Pull Factor: preference for suburban living and location. • Obsolescence: deterioration of built env. & social infrastructure • Unintended Policy: Government policies favoring suburbs. • Exploitation: unequal development in favor of suburbs. • Structural Change: deindustrialization and economic decline • Fiscal Crisis: declining resource base and rising costs of services. • Conflict: Social class polarization 	<ul style="list-style-type: none"> • An explanation for the problem context of inner city industrial blight. • A perspective on the overall dynamics of the inner city and highlighting interrelated problems and issues of decline and regeneration.
<p>Bourne (1982: 245) outlines inner city related attributes that attract reinvestment</p>	<ul style="list-style-type: none"> • Primarily government or service-based economies, • Strong downtown office concentrations, • Areas of historical, cultural, or architectural significance, • A relative absence of racial conflicts, • Natural environmental amenities, • Viable public transit systems 	<ul style="list-style-type: none"> • Characteristics of inner cities that is conducive to revitalization and integrating site reuse/redevelopment with inner city revitalization. • A perspective for potential approaches and viable functional themes within the inner city.
<p>In a study of 22 Canadian CMAs, Broadway (1995: 15) concludes that:</p>	<ul style="list-style-type: none"> • Post-industrial forces have produced a continuum of social change between and among Canada's inner cities. • Medium-size cities dependent upon manufacturing with small quaternary sector, experienced population decline and increases in impoverished groups within their inner cities (1971-1991). • Cities with a large quaternary sector and an amenity rich inner city experienced population gains and declines in dependent groups. • Quaternary centers with inner city amenities provide greater evidence of rejuvenation than older manufacturing centers. 	<ul style="list-style-type: none"> • Explanation for inner city declining markets for some medium-size cities likes Kitchener. • Explains the relevance and viability of administrative, financial and information function (quaternary sector) within the inner city and the functional transformation process and impacts.

<p>Four types of inner city districts:</p> <p>Bourne, 1982:230; Ley, 1991: 325; Ley & Frost, 2006: 194</p>	<ul style="list-style-type: none"> • <i>Districts in Decline</i> in which physical deterioration of the housing stock is associated with population loss, poverty, and social problems. • <i>Districts of stability</i> where pressures for change are slight. • <i>Districts of revitalization</i>, which is increasingly in progress. • <i>Areas of Massive Redevelopment</i> that took place in the 1950s and 1960s. Gentrification has been a reaction against massive redevelopment 	<ul style="list-style-type: none"> • Classification and typology of inner city districts that helps in relating blighted industrial sites to their respective district type as well as in planning for reuse of industrial sites in the context of residential districts that surround them. 																		
<p>3. Intra-urban Form and Development</p> <p>▪ <i>Spatial Form</i></p> <p>▪ <i>Density of Development</i></p> <p>▪ <i>Spatial Segregation</i></p> <p>▪ <i>Social Space/Structure</i></p> <p>▪ <i>Access to Public Goods</i></p> <p>▪ <i>Local labor markets</i></p> <p>▪ <i>Governance</i></p> <p>▪ <i>Community Cohesion/ Sense of Place</i></p>	<p>Bourne (1996: 9) outlines an overview of recent trends in intra-urban form with visions for alternative scenarios:</p> <table border="1"> <thead> <tr> <th>Recent trends/scenarios</th> <th>Alternative Scenario</th> </tr> </thead> <tbody> <tr> <td>• <i>Decentralized/ dispersed</i></td> <td>• <i>Decentralized/ multi-nodal</i></td> </tr> <tr> <td>• <i>Declining / sprawl</i></td> <td>• <i>Stable or increasing densities (re-urbanization)</i></td> </tr> <tr> <td>• <i>High - homogeneous activity zones</i></td> <td>• <i>Low: mixed land uses/zones and projects</i></td> </tr> <tr> <td>• <i>Increasingly polarized</i></td> <td>• <i>Increasing heterogeneity (mixed incomes, lifestyles)</i></td> </tr> <tr> <td>• <i>Increasingly unequal</i></td> <td>• <i>Increasingly uniform, equitable</i></td> </tr> <tr> <td>• <i>Disintegrating/ dispersed</i></td> <td>• <i>Reintegrating/ balanced and diverse</i></td> </tr> <tr> <td>• <i>Fragmented/ locally competitive</i></td> <td>• <i>Co-operative/ with local empowerment</i></td> </tr> <tr> <td>• <i>Increasing / localized privatization</i></td> <td>• <i>Decreasing/ social alienation, isolation</i></td> </tr> </tbody> </table>	Recent trends/scenarios	Alternative Scenario	• <i>Decentralized/ dispersed</i>	• <i>Decentralized/ multi-nodal</i>	• <i>Declining / sprawl</i>	• <i>Stable or increasing densities (re-urbanization)</i>	• <i>High - homogeneous activity zones</i>	• <i>Low: mixed land uses/zones and projects</i>	• <i>Increasingly polarized</i>	• <i>Increasing heterogeneity (mixed incomes, lifestyles)</i>	• <i>Increasingly unequal</i>	• <i>Increasingly uniform, equitable</i>	• <i>Disintegrating/ dispersed</i>	• <i>Reintegrating/ balanced and diverse</i>	• <i>Fragmented/ locally competitive</i>	• <i>Co-operative/ with local empowerment</i>	• <i>Increasing / localized privatization</i>	• <i>Decreasing/ social alienation, isolation</i>	<ul style="list-style-type: none"> • Urban dynamics as an overall context (macro-level) for site reuse/redevelopment (micro-level) • Favorable scenarios as a framework for potential reuse and redevelopment approach and policy • Highlighting issues of re-urbanization, mixed use development and redevelopment, and urban intensification, which are relevant to the reuse and redevelopment of blighted industrial sites. • Highlighting social, political and spatial concepts relevant to my research like equity, cooperative governance, and localized sense of place.
Recent trends/scenarios	Alternative Scenario																			
• <i>Decentralized/ dispersed</i>	• <i>Decentralized/ multi-nodal</i>																			
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<p>Characteristics</p> <p>▪ <i>Spatial organization</i></p> <p>▪ <i>Population densities</i></p> <p>▪ <i>Land-use mix</i></p> <p>▪ <i>Social spaces</i></p> <p>▪ <i>Income inequalities</i></p> <p>▪ <i>Production spaces</i></p> <p>▪ <i>Local labour markets</i></p> <p>▪ <i>Public goods and infrastructure</i></p>	<p>In a study of Alternative Future for Urban Canada, Bourne (2006: 461) outlines Future Urban Forms and Alternative Scenarios:</p> <table border="1"> <thead> <tr> <th>Scenario 1</th> <th>Scenario 2</th> </tr> </thead> <tbody> <tr> <td>• <i>Decentralized, dispersed city</i></td> <td>• <i>Compact city, re-urbanized, multi-nodal</i></td> </tr> <tr> <td>• <i>Low and declining (sprawl)</i></td> <td>• <i>Stable (increasing in selected locations)</i></td> </tr> <tr> <td>• <i>Highly segmented, homogeneous zones</i></td> <td>• <i>Mixed uses, heterogeneous zones</i></td> </tr> <tr> <td>• <i>Increasingly segregated, homogeneous social & ethnic areas</i></td> <td>• <i>Increasingly diverse, mixed communities</i></td> </tr> <tr> <td>• <i>Increasing: areas of extreme wealth and deep poverty</i></td> <td>• <i>Stable or decreasing: mixed-income areas</i></td> </tr> <tr> <td>• <i>Dispersed throughout urban areas</i></td> <td>• <i>Decentralized, but re-concentrating in new suburban clusters</i></td> </tr> <tr> <td>• <i>De-integrating, dispersed</i></td> <td>• <i>Re-integrating, balanced and diverse</i></td> </tr> <tr> <td>• <i>Uneven, unequal, largely privatized</i></td> <td>• <i>Uniform, equitable, largely state-provided</i></td> </tr> </tbody> </table>	Scenario 1	Scenario 2	• <i>Decentralized, dispersed city</i>	• <i>Compact city, re-urbanized, multi-nodal</i>	• <i>Low and declining (sprawl)</i>	• <i>Stable (increasing in selected locations)</i>	• <i>Highly segmented, homogeneous zones</i>	• <i>Mixed uses, heterogeneous zones</i>	• <i>Increasingly segregated, homogeneous social & ethnic areas</i>	• <i>Increasingly diverse, mixed communities</i>	• <i>Increasing: areas of extreme wealth and deep poverty</i>	• <i>Stable or decreasing: mixed-income areas</i>	• <i>Dispersed throughout urban areas</i>	• <i>Decentralized, but re-concentrating in new suburban clusters</i>	• <i>De-integrating, dispersed</i>	• <i>Re-integrating, balanced and diverse</i>	• <i>Uneven, unequal, largely privatized</i>	• <i>Uniform, equitable, largely state-provided</i>	<ul style="list-style-type: none"> • Direction toward urban infill/ intensification • • Direction toward mixed land use settings • Mixed socio-economic communities • Mixed-income areas and social equity, reducing income disparities • Decentralization/suburbanization of industrial activity • • Social equity and social justice
Scenario 1	Scenario 2																			
• <i>Decentralized, dispersed city</i>	• <i>Compact city, re-urbanized, multi-nodal</i>																			
• <i>Low and declining (sprawl)</i>	• <i>Stable (increasing in selected locations)</i>																			
• <i>Highly segmented, homogeneous zones</i>	• <i>Mixed uses, heterogeneous zones</i>																			
• <i>Increasingly segregated, homogeneous social & ethnic areas</i>	• <i>Increasingly diverse, mixed communities</i>																			
• <i>Increasing: areas of extreme wealth and deep poverty</i>	• <i>Stable or decreasing: mixed-income areas</i>																			
• <i>Dispersed throughout urban areas</i>	• <i>Decentralized, but re-concentrating in new suburban clusters</i>																			
• <i>De-integrating, dispersed</i>	• <i>Re-integrating, balanced and diverse</i>																			
• <i>Uneven, unequal, largely privatized</i>	• <i>Uniform, equitable, largely state-provided</i>																			

<ul style="list-style-type: none"> ▪ Transportation mix 	<ul style="list-style-type: none"> • Exclusively auto-oriented and expressway-based 	<ul style="list-style-type: none"> • Auto/transit balanced 	<ul style="list-style-type: none"> • To encourage transit systems and transit oriented development.
<ul style="list-style-type: none"> ▪ Governance 	<ul style="list-style-type: none"> • Fragmented, numerous local government, highly competitive 	<ul style="list-style-type: none"> • Regionally co-operative, with local empowerment 	<ul style="list-style-type: none"> • Regional planning coordination/integration with local control on development/redevelopment
<ul style="list-style-type: none"> ▪ Sense of place and community 	<ul style="list-style-type: none"> • Strong, but locally focused and exclusionary 	<ul style="list-style-type: none"> • Strong, but with a broader region-wide commitment 	<ul style="list-style-type: none"> • Sense of place and community as an objective to achieve in brownfield redevelopment
<ul style="list-style-type: none"> ▪ Environmental quality, green space 	<ul style="list-style-type: none"> • Decreasing: increased pollution, loss of greenery 	<ul style="list-style-type: none"> • Increasing: decreased pollution, greener 	<ul style="list-style-type: none"> • Environmental site remediation & restoration as first step in brownfield redevelopment.
<ul style="list-style-type: none"> ▪ Built environment 	<ul style="list-style-type: none"> • Deteriorating: loss of heritage, banal design 	<ul style="list-style-type: none"> • Upgrading strong heritage movement, enhanced design 	<ul style="list-style-type: none"> • Heritage conservation & design innovation is a central theme in brownfield redevelopment
Land use Planning, Development Planning, Ecological Planning, Urban Design, and Architecture			
<p>4. Urban Change Content Theories</p> <ul style="list-style-type: none"> ▪ Political economy theories 	<p>Kaiser et al (1995) cites general urban change theories and points out that they provide important, but incomplete models of urban change content:</p> <ul style="list-style-type: none"> • Explain urban development in terms of culture-driven efforts to organize urban space to serve social needs. 		<ul style="list-style-type: none"> • Reuse of blighted industrial sites has strong relationship to urban transformation and urban planning in general including land use planning. • These explain the multidisciplinary dynamics in urban land use transformation through the various concepts and approaches direction. • These highlight the need toward integration among disciplines and a direction toward an integrative theory combining these discipline-based theories.
<ul style="list-style-type: none"> ▪ Land Market Theories 	<ul style="list-style-type: none"> • Describe the relationships between landowners, purchasers, and developers. 		
<ul style="list-style-type: none"> ▪ Classical Economic Theories 	<ul style="list-style-type: none"> • Explain spatial structure through the working of the market in allocating space according to supply and demand in an equilibrium system. 		
<ul style="list-style-type: none"> ▪ Theories of Good City Form 	<ul style="list-style-type: none"> • Propose performance dimensions for assessing urban spatial form and process with emphasis on the physical-behavioral settings. 		
<ul style="list-style-type: none"> ▪ Ecological Theories 	<ul style="list-style-type: none"> • Describe stages of natural environmental equilibrium & threats to this condition. 		
<ul style="list-style-type: none"> ▪ Marxian Theories 	<ul style="list-style-type: none"> • Explain urban development in terms of the exploitation of workers by capitalists 		
<p>Planned Urban Change</p> <ul style="list-style-type: none"> ▪ Human Ecology Approach 	<p>Kaiser et al (1995) cites from (Rudel, 1989) the following applied approaches:</p> <ul style="list-style-type: none"> • This approach assumes market changes, often resulting from actions such as highway construction, produce changes in land use regulations over time. 		<ul style="list-style-type: none"> • Each approach alone may explain part of reality. • These provide a level of integration among disciplines but not all. • These explain the importance of collaboration & involvement in the process to achieve consensus among stakeholders. • These approaches highlight important and relevant notions like conflicting interests, structural and interactional variables, which resemble to a certain extent the notion of linkage among the contextual components.
<ul style="list-style-type: none"> • Political-Economic Approach 	<ul style="list-style-type: none"> • This approach adds the influence of powerful political interests and the salience of land use conflicts shaped by difference between places. • A game theory approach is needed to incorporate process variables because land use planning involves interactions among various interested parties, and those players are more cooperative and less conflictual if they know that they will play repeated rounds with the same players. • Political inequalities rather than market forces determine land use policies • The model of cities as growth machines including structural and interactional variables. 		

Appendix A3.2 (Cont.): Contributions of Applied Planning and Other Relevant Interdisciplinary Theories		
Theory - Concept	Main Themes, Characteristics, and Assumptions	Contributions to this Research – Potential Inputs & Linkages
5. Land Use Values	Land use change can be described in terms of three value sets that must be brought into balance by planning (Kaiser et al, 1995:42).	<ul style="list-style-type: none"> • In essence, this approach is similar to sustainable development. • It highlights the need for integrating different values as if to combine multiple plane planning processes. • It is a multidisciplinary approach similar to blighted sites reuse and redevelopment. • Even though views within each set of values are diverse, however, they reflect the conflicting issues of reality. • This complex perspective requires a special framework to reconstruct the problem dynamics and parameters like in the case of industrial blight. The notion of identifying the linkages among the value sets and within each helps in the reconstruction of the structural form and process among them.
1. Social Use Values	<ul style="list-style-type: none"> • They express the value that people give for land use arrangements as settings for living their lives, which see land use as a fabricator of desirable activity patterns and social aspirations. 	
• <i>Urban Form Theories</i>	<ul style="list-style-type: none"> • These are concerned with designing the physical environment with emphasis on the interrelationship between the human behavioral and physical settings. 	
• <i>Activity System Theories</i>	<ul style="list-style-type: none"> • These are concerned with understanding the behavioral patterns of urban residents and the location of urban functions. 	
• <i>Neighborhood Theories</i>	<ul style="list-style-type: none"> • These are concerned with both design and behavior, but at the sub-city level. 	
2. Market Values	<ul style="list-style-type: none"> □ They express people's values to land as a commodity, which makes land use as a real estate profit medium. 	
• <i>Correcting Market Failure</i>	<ul style="list-style-type: none"> • Private market is effective in organizing transactions, which should only be fine-tuned by government regulation and planning to correct minor distortions. 	
• <i>Redistributing Wealth and Power</i>	<ul style="list-style-type: none"> • Public intervention should substitute for market processes in order to redistribute wealth and opportunities. 	
• <i>Public-Private Partnership</i>	<ul style="list-style-type: none"> • This is a merge of the private market and government in a public-private partnership, a form of joint venture and deal making. 	
3. Ecological Values	<ul style="list-style-type: none"> • These express people's values toward the natural systems on the land. Land use as a potential environmental threat to be mitigated. 	
• <i>Environment as Asset</i>	<ul style="list-style-type: none"> • This looks at the environment as an economic asset and aims at the efficient use of natural resources for human benefit through plans and regulation 	
• <i>Environmental Integrity</i>	<ul style="list-style-type: none"> • This looks for a harmony between actions of people and nature's processes to avoid irreversible damage to ecological functions. This includes concepts like sustainable development, land suitability, and carrying capacity. 	
• <i>Preservation of Nature</i>	<ul style="list-style-type: none"> • Preservation of nature is for its own value as a basic purpose and that plants and animals have an ethical right to exist. The main criteria are ecosystem health and biodiversity as well as intergenerational equity. 	

Appendix A3.2 (Cont.): Contributions of Applied Planning and Other Relevant Interdisciplinary Theories		
Theory - Concept	Main Themes, Characteristics, and Assumptions	Contributions to this Research – Potential Inputs & Linkages
<p>6. Planning and Sustainable Development</p> <p>Breheny, 1992; Campbell, 1996; 2003 Kaiser et al, 1995; Slocombe, 1993;</p>	<ul style="list-style-type: none"> • Development that secures present and future societal needs equitably without critical environmental damage. • It attempts to integrate the biophysical and the socioeconomic settings to achieve a balance among the social, economic, environmental and the political objectives. • Criteria include ecosystem health & balance (both human and natural settings). • Sustainable development can not be reached directly, but can be approached indirectly through the sustained process of resolving conflicting issues among the social, economic, and environmental objectives (Campbell, 1996 & 2003). • The general corresponding objectives are social equity, economic growth, and environmental protection. 	<ul style="list-style-type: none"> • The concept of integrating the biophysical and the socioeconomic settings is relevant to the case of site remediation, restoration, and redevelopment to achieve an integrated setting. • Human and natural ecosystem health and balance is the common leading criteria.
<p>7. Heritage Conservation - Adaptive Reuse</p> <p>Burchell & Listokin,1981; Germain & Lessard,1989; ULI, 1987; Wagner & Bensason, 1997; Bliet & Gauthier, 2007</p>	<ul style="list-style-type: none"> • The optimal reuse of available resources (building, facilities, and sites) and their inherent values like industrial architectural heritage, natural and cultural heritage in general. • There are three main strategies <ul style="list-style-type: none"> - Building rehabilitation (conservation) and reuse (usually for a new function) with new building additions on the site (e.g., Kaufman Footwear Complex, Kitchener). - Building removal and site redevelopment (usually on severely blighted/contaminated industrial buildings/sites (e.g., the IMICO Iron Foundry in Guelph). - Building rehabilitation (conservation) and redevelopment (e.g., Seagram Site, Waterloo). • The adaptive reuse concept includes the adaptive process in relation to the physical, environmental, economic, social and political components. 	<ul style="list-style-type: none"> • The central theme regarding blighted industrial sites is the adaptive reuse of available resources on site and in the surrounding areas. • The adaptive reuse process should respond and adapt to the five components of industrial blight, which includes: <ul style="list-style-type: none"> - Utilizing the physical resources and conserving the elements of heritage both cultural and natural (like buildings and traditional features). - Restoring the natural environment. - Adapting to the surrounding land uses like residential areas. - Responding to local residents needs and values.

Appendix A5.1.1: Participants' Names, Titles & Categories for Empirical Case Studies

Akram Al-Attar Ph.D. Candidate January 2001	Planning for Reuse and Redevelopment of Inner City Blighted/Contaminated Industrial Sites – Canadian Context	School of Planning Faculty of Environmental Studies University of Waterloo			
Site Description : Site Area (acres/hectares): 13.75a/ Site Ownership: Private Proposed Land Uses: Mixed-use Complex (Residential Community, Commercial, Offices)	Large-size Urban Setting - Toronto Implemented/ Under Implementation <u>Case Study (1): Gooderham & Worts Project</u> Toronto, Ontario, Canada				
Participant's Category	Participant's Title	(No.) Participants - Potential List	Date Interviewed	Completed Questionnaire	
1. Public Sector	• Planning Senior Official	() Former Mayor of Toronto	Not Interviewed		
		() City Councilor	Declined		
	1.1 Municipal (Local)	• Municipal Planner/ Engineer	(9) Urban Planner, City of Toronto	July 27,00 (11:30am)	Exhibit 5b X
			(1) Environmental Planner/Engineer, City of Toronto	Aug. 23&28 (11:30a)	Exhibits 5b, 6b & 7b
			() Lawyer at the City of Toronto	Declined	
			(3) Environmental Health Officer, Public Health Dept.	Declined	Exhibits 5b, 6b & 7b
			(2) Previous Professional at Heritage Toronto	Nov 23, 00 (10 am)	Exhibits 5b, 6b & 7b
			(10) Ministry of Culture	Sept 26, 00 (10 am)	Exhibit 5b X
	1.2 Provincial	• Ministry Planner/ Engineer/Other Repr.	(11) Environmental Engineer – MOE, Central Region	Oct. 5, 00 (10am)	Exhibit 5b X
		• Others	() Conservation Authority	Not Accessible	
1.3 Federal	• Ministry	() Park Canada	Not Accessible		
2. Private sector	• Developer/ Investor	() Developer	Not Accessible		
		() Project Manager – Main Developer	Declined		
		(4) Developer of Coop Housing	Aug 31, 00(11:30 am)	Exhibits 5b, 6b & 7b	
	• Financial Institution • Private Consultant	() Environmental Consultant	Not Accessible		
		(5) Urban Design Consultant	Nov 30, 00 (4:30 pm)	Exhibits 5b, 6b & 7b	
		() Private Architect	Not Accessible		
		(6) Private Architect (Restoration)	Oct. 17, 00 (10 am)	Exhibits 5b, 6b & 7b	
		() Private Urban Design Consultant	Not Accessible		
3. Community Residents	• Local community Representative	(7) Lawyer, Corktown Business	Oct. 25, 00 (2 pm)	Exhibits 5b, 6b & 7b	
		(8) Old Resident	Oct. 3, 00 (2 pm)	Exhibits 5b, 6b & 7b	
		() Corktown	Not Accessible		
	• Others	() Citizens for the old town (Corktown)	Not Accessible		
4 NGO's	•	°			
5. Others	•	°			
X Exhibits 6b & 7b are not completed		Interviewed Participants	Potential Participants to be Interviewed but Declined or not Accessible		

Appendix A5.1.2: Participants' Names, Titles, and Categories for Empirical Case Studies – Case Study 2, Port Centre Development				
Akram Al-Attar Ph.D. Candidate March 2001		Planning for Reuse and Redevelopment of Inner City Blighted/Contaminated Industrial Sites – Canadian Context		School of Planning Faculty of Environmental Studies University of Waterloo
Site Description : Site Area (acres/hectares): 40a/16h , Port Lands Total: 1000a/400h Site Ownership: Mostly Public/ Partly Private Proposed Land Uses: Warehouse Type Retail Comm., Recreation-Arena Complex, Industrial		Large-size Urban Setting - Toronto Not Implemented Case Study Project <u>Case Study (2): Port Centre Development Project</u> Port Industrial District (Portlands) Toronto, Ontario, Canada		
Participant's Category	Participant's Title	(No.) Participants - Potential List	Date Interviewed	Completed Questionnaire
2. Public Sector 1.1 Municipal (Local)	• Planning Senior Official	() Former Mayor of Toronto	Not Interviewed	
		() City Councilor	Not Interviewed	
		() City Councilor	Not Accessible	
		() Senior Official	Not Accessible	
	• Municipal Planner/ Engineer/Env. Health Off.	(1) Urban Planner, City of Toronto	June 28,00(2pm)	Exhibits 5b, 6b & 7b
		(2) Environmental Health Officer (300 Commissioners St.)	Oct 10, 00 (1pm)	Exhibits 5b, 6b & 7b
	• Others	() GIS Specialist, City of Toronto	Declined	
	• Others - TEDCO (Toronto Economic Dev. Corporation)	(3) Former CEO, TEDCO	Oct 17, 00 (3 pm)	Exhibits 5b, 6b & 7b
		(4) Urban Planner - formerly at TEDCO () Representative, TEDCO	Aug 28, 00 (10am) Not Interviewed	Exhibits 5b, 6b & 7b
	1.4 Provincial	• Ministry Planner/Eng.	o	
1.5 Federal	• Port Authority	(5) President/CEO, Toronto Port Authority, Previously City Commissioner of Urban Dev. & Environment	Sept 26, 00 (2 pm)	Exhibits 5b, 6b & 7b
		• Others	o	
2. Private sector	• Developer/ Investor • Financial Institution • Private Consultant • Business Representative	(6) Representative, NW Atlantic, Costco, Home Depot	Feb28, 01(11am)	Exhibits 5b, 6b & 7b
		(7) Urban Planner - formerly at Private Planning Consultant	Aug 28, 00 (4pm)	Exhibits 5b, 6b & 7b
		() Representative - Donohue Inc. (Recycling)	Declined	
		() Private Business Owner	Not Interviewed	
3. Community Residents	• Local Community Representatives	() Local Resident	Not Interviewed	
		(8) Local Resident	Sept 28, 00 (1pm)	Exhibits 5b X
		(9) South Riverdale Comm. Health Centre	Sept 12, 00 (1 pm)	Exhibits 5b X
		() Representative-Cabbage Town BIA	Not Interviewed	
		() Representative-Cabbage Town BIA	Not Interviewed	
4 NGO's , NFP	•	() Representative-Lever Ponds	Declined	
5. Others	•	o		
X Exhibits 6b & 7b are not completed		Interviewed Participants	Potential Participants to be Interviewed but Declined or not Accessible 2/4	

Appendix A5.1.3: Key Participants, Their Categories and Titles for In-depth Case Studies

Akram Al-Attar Ph.D. Candidate March 2001		Planning for Reuse and Redevelopment of Inner City Blighted/Contaminated Industrial Sites – Canadian Context			School of Planning Faculty of Environmental Studies University of Waterloo
Site Description : Site Area = 185 acres Site Ownership = Private Proposed Land Uses = Residential/Service Commercial		Medium-size Urban Setting - Mississauga			
		Implemented/Under Implementation Case Study Project			
		<u>Case Study (3): Cooksville Quarry & Brick Factory Site</u> Mississauga, Ontario, Canada			
Participant's Category	Participant's Title	(No.)	Participants - Potential List	Date Interviewed	Completed Questionnaire
3. Public Sector 1.1 Municipal (Local)	• Planning Senior Staff	(7)	Councilor, City of Mississauga	Dec7,00 (9:30am)	Exhibit 5b X
	• Municipal Planner/ Engineer	(1)	Urban Planner, Planning & Build. Dept., City of Miss.	Aug18,00 (11 am)	Exhibits 5b, 6b & 7b
		(2)	Environmental Engineer, City of Mississauga	Aug21,00 (1 pm)	Exhibits 5b, 6b & 7b
		(3)	Engineer, Transp. & Work Dept., City of Miss.	Sept19,00 (3 pm)	Exhibits 5b, 6b & 7b
1.6 Provincial	• Ministry Senior Staff	o			
	• Ministry Planner/ Engineer	(4)	Environmental Engineer, MOE –Halton/Peel District () Engineer	Oct16,00 (10 am) Not Interviewed	Exhibits 5b, 6b & 7b
1.7 Federal	• Ministry Senior Staff	o			
	• Ministry Planner	o			
	• Others	o			
2. Private sector	• Developer/ Investor	(5)	Project Developer	Aug16, 00 (2 pm)	Exhibits 5b, 6b & 7b
	• Previous Owner Repr.	()	Hydrologist, Repr. of Domtar, previous owner	Not Accessible	
	• Private Consultant	(8)	Urban Planner, Private Planning Consultant for Project	Sept28,00 (10 am)	Exhibits 5b X
		(6)	Environmental Eng., Private Env. Consultant Firm	Aug31,00 (2 pm)	Exhibits 5b, 6b & 7b
• Business Repr.	o				
3. Community Residents	• Local community Representative	()	Representative, Cooksville Ratepayers Association	Declined	
	• Others				
4 NGO's	•	o			
5. Others	•				
X Exhibits 6b & 7b are not completed			Interviewed Participants	Potential Participants to be Interviewed but Declined or not Accessible	3/4

Appendix A5.1.4: Key Participants, Their Categories and Titles for Empirical Case Studies

Akram Al-Attar Ph.D. Candidate March 2001		Planning for Reuse and Redevelopment of Inner City Blighted Contaminated Industrial Sites – Canadian Context			School of Planning Faculty of Environmental Studies University of Waterloo
Site Description : Site Area: 106.6 acres Site Ownership: Public and Private Proposed Functions/Land Uses: Industrial, Utilities, Recreation		Medium-size Urban Setting - Hamilton Not Implemented/ Partially Implemented Case Study Project Case Study (4): West Harbourfront Development Study - WHDS Including 241 Stuart Street & CN Service Yard & Bayfront Park Hamilton, Ontario, Canada			
Participant's Category	Participant's Title	(No.)	Participants - Potential List	Date Interviewed	Completed Questionnaire
4. Public Sector 1.1 Municipal (Local)	• Planning Senior Staff	(11)	Alderman, City of Hamilton	Sept21,00(9 am)	Exhibits 5b X
		()	Regional Chair, Regional Municipality of Hamilton	Not Interviewed	
		(1)	Director of Economic Dev., City of Hamilton	Sep13,00(3:30pm)	Exhibits 5b, 6b & 7b
	• Municipal Planner/ Engineer	()	Director, Planning Department	Not Interviewed	
		(2)	Urban Planner, Comm. Planning Dept, City of Hamilton	July5,00(2:30 pm)	Exhibits 5b, 6b & 7b
		(3)	Manager, Parks Div., Public Works, City of Hamilton.	Aug8, 00(2:30pm)	Exhibits 5b, 6b & 7b
		(12)	Park Planner, Parks, Public Works, City of Hamilton	Aug29,00(3:30pm)	Exhibits 5b X
		(13)	Transp. Planner, Transportation Department	Sept21,00(11 am)	Exhibits 5b X
		()	Engineer, Public Works & Traffic, City of Hamilton	Not Interviewed	
	• Others	()	GIS Specialist, City of Hamilton	Not Interviewed	
(4)		Representative, Parks, Public Works, City of Hamilton	Aug29,00(1:30pm)	Exhibits 5b, 6b & 7b	
1.2 Provincial	• Ministry Planner/Eng	()	Environmental Engineer, Hamilton Dist., MOE	Not Accessible	
1.3 Federal	• Harbour	(10)	Port Planner, Hamilton Harbour Commissioners	Aug23(10:30pm)	Exhibits 5b, 6b & 7b
2. Private sector	• (CN) – previously federal, now Private	(5)	Land Manager, CN	Nov2, 00 (4 pm)	Exhibits 5b, 6b & 7b
		(6)	Representative, CN	Nov2,00(2:30 pm)	Exhibits 5b, 6b & 7b
		(14)	Director of Communications, CN	Dec22, 00 (10am)	Exhibits 5b X
	• Private Consultant	()	Philips Planning & Engineering Services	Not Accessible	
		(7)	Environmental Consultant for Trail	Jan 5,01(9:30am)	Exhibits 5b, 6b & 7b
	• Business Representative	(8)	Former Representative, Chamber of Commerce	Nov15, 00(4pm)	Exhibits 5b, 6b & 7b
()		Director of Hamilton Construction Association	Not Interviewed		
3. Community Residents	• Local community Repr.	(9)	Local Resident, Member of BARC and RAP	Sept8,00 (9:30am)	Exhibits 5b, 6b & 7b
		(15)	Local Resident, Central Neighbourhood North & East	Oct23,00(4:30pm)	Exhibits 5b X
4 NGO's	•				
5. Others	•				
X	Exhibits 6b & 7b are not completed		Interviewed Participants	Potential Participants to be Interviewed but Declined or not Accessible	4/4

APPENDIX A5.2 - Exhibit 5b: Focused/Open-ended Interview Questionnaire		
Akram Al-Attar Ph.D. Candidate August 2000	Planning for Reuse and Redevelopment of Inner City Blighted Industrial Sites – Canadian Context	School of Planning Faculty of Environmental Studies University of Waterloo
Exhibit 5b: Participants' Questions – Overall Multiple Component Planning Process, Planning Sub-processes, and a Key Policy Direction		
<i>Note: These questions relate to the specific project that the Participant was or has been involved in.</i>		
1. Environmental-Legal Component: <i>Site Remediation and Preparation Planning</i>		
1.1	What were the main environmental issues/problems in your project (e.g., site and/or building contamination and flooding potential)?	
1.2	Given the MOEE guidelines for site remediation approaches (i.e., Background, Generic, and Site Specific Risk Assessment - SSRA), what was the adopted approach in your project? Why do you think that it was the appropriate site remediation approach?	
1.3	Were there real or perceived legal liabilities of environmental contamination/ decontamination? If yes, how did you deal with those legal liabilities (present and future)?	
1.4	How did you implement the site remediation plan (if applicable)?	
1.5	How did you monitor site remediation while implementing site reuse and redevelopment?	
1.6	Others.	
2. Physical-Functional Component: <i>Physical-functional planning and design (vision) including Land use Planning, Urban Design, Site Planning, Architectural Design & Conservation</i>		
2.1	What were the main issues, problems, and objectives? What were the appropriate land use approach, functional themes, and urban design strategies for site reuse and redevelopment?	
2.2	How did you decide on the appropriate new functions (or functional themes) for the site?	
2.3	Were there elements/issues of heritage value? What were they (built, natural, cultural etc.)? And how did you deal with those heritage elements/issues? How did you rank or integrate heritage values in project feasibility and/or general evaluation?	
2.4	How did you relate site issues and planning (micro-level) with the surrounding and overall urban context (macro-level)? Were there any land use incompatibility issues and concerns?	
2.5	Others.	
3. Economic Component: <i>Project Financial/Investment Planning & Marketing Planning</i>		
3.1	What was the financing approach in your project? Was project start-up funding (public or private) easily accessible?	
3.2	Was the project financially feasible (for site remediation and the overall redevelopment)? How would you compare site remediation cost versus site's real estate value? Was environmental insurance used (to cap site remediation cost and to limit legal liabilities of contamination)?	
3.3	How did you plan for project marketing (whether for site remediation, site redevelopment, or tenants occupancy)?	
3.4	What were the major favourable circumstances that made the project marketable?	
3.5	Others.	
4. Social-Psychological Component: <i>Social equity planning (socioeconomic development and accessibility to newly generated opportunities); Safe community planning</i>		
4.1	What were the main social, socioeconomic, or sociopolitical concerns/ problems in the process? Was there any social inequity issues? Before redevelopment, was there any security problems within the site and its surrounding area?	
4.2	Were there local residents that were unemployed due to the stop functioning (or under functioning) of site establishments? If there were, how did you address them in the process?	
4.3	Others.	

APPENDIX A5.2 (Cont.) - Exhibit 5b: Focused/Open-ended Interview Questionnaire	
Exhibit 5b (Cont.): Participants' Questions – Overall Multiple Component Planning Process, Planning Sub-processes, and a Key Policy Direction	
5. Political-Institutional, Organizational Component: <i>Stakeholders' Consensus Building, Collaboration and Partnerships, including the Public Consultation Process (public sector, private sector, & community)</i>	
5.1	Who was monitoring the overall process? Was there a special redevelopment authority (public and/or private) that was responsible for the overall redevelopment process? How was the community involved in the process?
5.2	What were the major conflicts among stakeholders (objectives, interests, and values)?
5.3	How did you reach stakeholders' common consensus on conflicting issues?
5.4	What forms of stakeholders' partnership were setup in the process (whether public-public, public-private, or public-private-community)?
5.5	Others.
6. Project Implementation: <i>Implementation Packages and Phasing Plans</i>	
6.1	If the project was implemented or under implementation, was site remediation and actual site reuse and redevelopment one or two separate implementation packages? Who was primarily responsible for each implementation package?
6.2	Was the whole site redeveloped altogether as one piece or subdivided into sub-areas designating redevelopment and implementation phasing? Briefly explain the reasoning?
6.3	How did you manage delay time in the process (e.g., approval processes)?
6.4	Others.
7. Key Policy Direction: <i>Tax Increment Financing - TIF</i> (<i>Self-financing mechanism for site remediation</i>). One major indicator/measure may be: <i>"The impact of redevelopment on future property values and tax base of site and surrounding"</i>	
7.1	If the project was implemented, was there an impact on property values and tax base due to site reuse and redevelopment? Explain how? Were there any studies done in this regard?
7.2	Do you think that a self-financing approach (like tax increment financing-TIF) viable to cover site remediation cost in the Canadian context? Why? And what are the obstacles?
7.3	Others.
8. Overall Multiple-component Planning Process and a Clear Future Vision	
8.1	How was the project initiated? Who developed the initial planning vision for the project?
8.2	What were the major favorable circumstances for site reuse/redevelopment in your project?
8.3	What were the major problems/obstacles that faced your overall project planning?
8.4	Did you do evaluation for the overall process? How did you weight/balance environmental, physical, economic, social, and political objectives? What were some of the major trade off?
8.5	How did you integrate planning sub-processes (e.g., site remediation, physical planning and design, financing and marketing, consensus building ... etc.)?
8.6	After project implementation (if it was implemented), what were the monitoring issues and concerns? Explain briefly.
8.7	Others.

APPENDIX A5.2 - Exhibit 6b

Akram Al-Attar
Ph.D. Candidate
August 2000

**Planning for Reuse and Redevelopment of Inner City
Blighted Industrial Sites – Canadian Context**

School of Planning
Faculty of Environmental Studies
University of Waterloo

Exhibit 6b: Participants’ Questions – Impact Evaluation of Problems & Issues

<p><i>Question:</i></p> <p><i>In your project, evaluate the impact of the following problems/issues on the overall site reuse and redevelopment process.</i></p> <p>(Click one for each item.)</p>	V. Strong	Strong	Moderate	Weak	V. Weak	NA
	■	●	▲	□	○	NA
	5	4	3	2	1	0

1. Environmental-Legal Component: Site Remediation and Preparation Planning

1.1 Environmental contamination of site and/or buildings						
1.2 Other human & natural ecosystems health hazard						
1.3 Legal liabilities of contamination and decontamination:						
• Current liabilities						
• Future liabilities						
• Real liabilities (certain like identified contamination)						
• Perceived liabilities (expected but not certain)						
1.4 Current government approval process for site remediation:						
• Clarity and consistency of procedure						
• Length of procedure (time delay)						
• Government commitment to approval for site remediation						
1.5 Others						

2. Physical-Functional Component: Land Use Planning, Urban design, Site & Building Design

2.1 Unused or underutilized buildings/ sites:						
• Vacant or abandoned buildings/ sites						
• Underutilized buildings/ sites						
2.2 Structural/physical dilapidation of buildings						
2.3 Deterioration of physical infrastructure networks						
2.4 Declining environmental image of the area						
2.5 Site accessibility and visibility:						
• Accessibility to main transportation routes (like expressway)						
• Site visibility from main transportation routes						
• Availability of public transportation						
2.6 Others						

3. Economic Component: Financial/Investment Planning & Marketing

3.1 Project perception is economically not feasible						
3.2 Impact of site remediation cost on project financial feasibility						
3.3 High cost of building conservation, renovation, and/or restoration						
3.4 Scarcity of public & private funding						
3.5 Declining property values and tax base						
3.6 Declining economic redevelopment market of the area						
3.7 Others						

4. Social-Psychological Component: Social Equity Planning and Safe Community Planning

.1 Social inequities/injustice due to negative socioeconomic impacts						
.2 Low educational levels and high unemployment rate among residents enhances problems of accessibility to opportunities (jobs).						
.3 Social problems associated with dilapidated and/or abandoned buildings and sites (e.g., vandalism and crime)						
.4 Social stigmatization of the area						
.5 Others						

APPENDIX A5.2 - Exhibit 6b (Cont.)

Exhibit 6b (Cont.): Participants' Questions – Impact Evaluation of Problems and Issues

<i>Question (Cont.):</i>	V. Strong	Strong	Moderate	Weak	V. Weak	NA
<i>In your project, evaluate the impact of the following problems/issues on the overall site reuse and redevelopment process.</i> (Click one for each item)	■	●	▲	□	○	NA
	5	4	3	2	1	0

5. Political-Organizational Component: Stakeholders' Consensus, Collaboration and Partnerships

5.1	Conflicting goals, interests, and values of primary stakeholders					
5.2	Lack of stakeholders' commitment in general to achieve objectives					
5.3	Lack of stakeholders' consensus on major objectives and issues					
5.4	Lack of stakeholders' organizational and collaborative commitment					
5.5	Lack of special redevelopment authority that is directly responsible					
5.6	Others					

6. Project Implementation: Implementation Packages and Phasing Plans

6.1	Difficulty of project initiation due to high risks and uncertainty.					
6.2	Difficulty of phasing site remediation as a first and separate implementation package before actual site reuse/redevelopment					
6.3	Difficulty of gradual implementation through phasing the overall site redevelopment into sub-area packages that are prioritized for site remediation and redevelopment due to: <ul style="list-style-type: none"> Legal requirements for approved overall site remediation first, Site conditions and the proposed reuse/redevelopment project. 					
6.4	Long time delays in the process					
6.5	Others					

7. Key Policy Direction: Tax Increment Financing - TIF
(Self-financing mechanism for site remediation). One major indicator/measure may be: **"The impact of redevelopment on future property values and tax base of site and surrounding"**

7.1	After site redevelopment, the expected property tax increments for the site and surrounding properties will be relatively low for financing the initial site remediation cost.					
7.2	Outline other problems/obstacles facing a (TIF) plan like: <ul style="list-style-type: none"> Legal factors - Municipal Act Institutional or organizational factors - 					

8. Overall Multiple-component Planning Process and a Clear Future Vision

8.1	Site problems are complex and interactive in nature like environmental contamination risks and liabilities versus: <ul style="list-style-type: none"> project economic feasibility and marketability, physical-functional declining image and blight, stakeholders' conflicting interests and objectives, social equity and security issues. 					
8.2	Difficulty of developing a future site redevelopment vision due to: <ul style="list-style-type: none"> multiple-component problem complexity, stakeholders' multiplicity and varying views. 					
8.3	Difficulty of integrating multiple planning processes including: site remediation, physical planning and design, financial planning and marketing, social equity planning, and stakeholders' partnerships					
8.4	Others					

APPENDIX A5.2 - Exhibit 7b

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August 2000

**Planning for Reuse and Redevelopment of Inner City
Blighted Industrial Sites – Canadian Context**

School of Planning
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Exhibit 7b: Participants' Questions – Impact Evaluation of Policy Directions

<p><i>Question:</i></p> <p><i>In your project, evaluate the impact of the following policy directions on the success of the overall site reuse and redevelopment process.</i></p> <p>(click one for each item and, if negative impact, indicate with minus sign)</p>	V. Strong	Strong	Moderate	Weak	V. Weak	NA
	■	●	▲	□	○	NA
	5	4	3	2	1	0

1. Environmental - Legal Component: Site Remediation and Preparation Planning

1.1 To address environmental contamination and site remediation in the beginning of the process in order to arrange for an optimal and legally viable site remediation plan						
1.2 To define and confine legal liability for contamination/ decontamination to viable limits (current and future liabilities)						
1.3 Conditional lift of future liability (of probable contamination) from new purchasers of already cleaned-up sites.						
1.4 Others						

2. Physical-Functional Component: Land Use Planning, Urban design, Site & Building Design

2.1 To prepare an inventory of existing blighted industrial sites in order to address the interrelated planning problems collectively						
2.2 To reclaim lost urban space through an adaptive reuse/ redevelopment of existing and potential resources						
2.3 To maintain a balance between heritage conservation and urban innovation in the context of urban transformation						
2.4 To aim at achieving responsive environments with a sense of place and community						
2.5 Others						

3. Economic Component: Financial/Investment Planning & Marketing

3.1 To establish public-private partnership for project financing						
3.2 To arrange for project marketing in the early stages of the process in order to secure potential developers, investors, and tenants						
3.3 To develop financial and other redevelopment incentives in order to create an attractive redevelopment package						
3.4 Availability of environmental liability insurance to cap site remediation costs and to control future liabilities of contamination						
3.5 Others						

4. Social-Psychological Component: Social Equity Planning and Safe Community Planning

4.1 To develop mechanisms that will secure accessibility of local residents to the newly provided opportunities (like jobs)						
4.2 To foster social equity and justice through community participation in the decision making process						
4.3 To aim at achieving socially safe environment (defensible space) through community participation						
4.4 Others						

APPENDIX A5.2 - Exhibit 7b (Cont.)

Exhibit 7b (Cont.): Participants' Questions – Impact Evaluation of Policy Directions

<i>Question (Cont.):</i>	V. Strong	Strong	Moderate	Weak	V. Weak	NA
<i>In your project, evaluate the impact of the following policy directions on the success of the overall reuse and redevelopment process.</i> (click one for each item and, if negative impact, indicate with minus sign)	■	●	▲	□	○	NA
	5	4	3	2	1	0

5. Political-Organizational Component: Stakeholders' Consensus, Collaboration and Partnerships

5.1 To develop a special redevelopment authority that is directly responsible for the reuse and redevelopment process. This may be in the form of a public authority, public-private, or public-private-community partnership.						
5.2 To establish network linkages among main stakeholders in order to foster consensus, collaboration and partnership throughout the different stages of the process						
• Public-public partnership						
• Public-private partnership						
• Public-private-community partnership						
5.3 Others.						

6. Project Implementation: Implementation Packages and Phasing Plans

6.1 To address site remediation as the first implementation package and then site reuse and redevelopment as a second package						
6.2 To adopt a gradual site remediation and redevelopment strategy (especially for large sites) through site subdivision into prioritized sub-area implementation packages.						
6.3 Others.						

7. Key Policy Direction: Tax Increment Financing - TIF
(Self-financing mechanism for site remediation). One major indicator/measure may be: ***"The impact of redevelopment on future property values and tax base of site and surrounding"***

7.1 To develop a self-financing mechanism (like TIF) to finance the cost of site remediation within the Canadian context.						
7.2 Roughly estimate and relate the following: After redevelopment, future tax increments on the site (and surrounding properties) can capitalize initial site remediation cost within a period of:						
• Fifteen years						
• Twenty years						
• More than twenty years						
7.3 Other appropriate financing mechanisms for site remediation						

8. Overall Planning Process and a Clear Future Vision

8.1 Having a clear vision and/or plan for the project						
8.2 Commitment to planning especially in dealing with large sites						
8.3 Adopting an integrative planning framework to link the major planning sub-processes including: site remediation, physical planning and design, project financing and marketing, social equity/security planning, and stakeholders' consensus & partnership						
8.4 Others						

Appendix A5.3: Rationale for Two-scale Urban Settings in Selecting In-Depth Case Studies

The hypothesis is that inner city dynamics of a large size urban setting like Toronto is more likely to be stronger and more conducive to the reuse and redevelopment of blighted industrial sites than inner city dynamics of a medium size urban setting like Hamilton based on the following factors:

Factor	Rationalization
1. Inner City Population Size & Re-urbanization	<ul style="list-style-type: none"> • There is a larger resident and transient population size and density within Toronto inner city than within Hamilton inner city. • There is more likelihood of re-urbanization as in Toronto population turnaround during the 1980s (Bourne, 1991; Broadway, 1995) • Toronto inner city population and number of families, even though experienced decline during the period (1971-1881), yet experienced an increase during the period (1981-1991). Hamilton has experienced decline in population and number of families during each of the two decades (Broadway, 1995).
2. Spatial Activity Structure	<ul style="list-style-type: none"> • There is a higher intensity and multiplicity of urban functions, activities, and cultural context within the inner city of a large urban setting like Toronto. Also, there are greater urban resources and amenities. • Economic restructuring of industrial activity in the post-industrial city resulted in a shift from the manufacturing sector to the tertiary sector (services) and to quaternary functions. The inner city has been more attractive for the service industry and office functions than for the manufacturing industry (Bourne, 1991 & 1982; Yeates, 1998; Stafford, 1982) • Bourne (1982) outlines that inner city related attributes that attract reinvestment includes: <ul style="list-style-type: none"> - Primarily government or service-based economies - Strong downtown office concentrations - Areas of historical, cultural, or architectural significance - Natural environmental amenities - Viable public transit • Broadway, (1995) outlines that (during 1971-1991): <ul style="list-style-type: none"> - Medium size cities dependent upon manufacturing, or a primary resource based regional economies with a small quaternary sector experienced population decline and increases in impoverished groups within their inner cities. - Cities with a large quaternary sector and an amenity rich inner city experienced population gains and declines in dependent groups. - Quaternary centres with inner city amenities provide greater evidence of rejuvenation than older manufacturing centres.
3. Global City Status	<ul style="list-style-type: none"> • There is a stronger global business network for a global city like Toronto than for a city like Hamilton. • The global city status for Toronto attracts the location of corporate headquarters (multinational and others) within the inner city. This in turn induces demand for complementary functions and services.

Planning for Reuse and Redevelopment of Inner City
 Blighted Industrial Sites – Canadian Context

Appendix A6.1: Impact Evaluation of Problems and Issues (Key Participants' Interviews- Exh 6b in Quest)

CASE STUDY 1: Gooderham & Worts Project – Toronto

<p><u>Question:</u> In your project, evaluate the impact of the following problems/ issues on the overall site reuse and redevelopment process. (Click one for each item)</p>	<p>Key Participants/Informants & Their Responses ■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0</p>										
	P1	P2	P3	P4	P5	P6	P7	P8	%	Resp	Ave.

1. Environmental-Legal Component: Site Remediation and Preparation Planning

1.1 Environmental contamination of site and/or buildings	■	■	■	●	●	●	●	■		8	●-■
1.2 Other human & natural ecosystems health hazard	■	■	■	○	□	□	●	■		8	▲-●
1.3 Legal liabilities of contamination and decontamination:											
● Current liabilities	▲		□	○		▲	■	■		6	▲
● Future liabilities	■		□	○		●	■	■		6	▲-●
● Real liabilities (certain like identified contamination)	▲	■	■	○		●	■	■		7	●
● Perceived liabilities (expected but not certain)	■	■	○	○		●	■	■		7	▲-●
1.4 Current government approval process for site remediation:											
● Clarity and consistency of procedure	□	▲	■	●	■	▲	■	▲		8	●
● Length of procedure (time delay)	●	▲	NA	●	■	▲	■	▲		7	●
● Government commitment to approval for site		○	■	●		●	■	▲		6	▲-●
1.5 Others											
Total									88%	63/72	●

2. Physical-Functional Component: Land Use Planning, Urban design, Site & Building Design

2.1 Unused or underutilized buildings/ sites:											
● Vacant or abandoned buildings/ sites	■	■		▲	■		■	●		6	●-■
● Underutilized buildings/ sites	■	■		▲		●	■	●		6	●
2.2 Structural/physical dilapidation of buildings	■	○		▲	□	□		▲		6	□-▲
2.3 Deterioration of physical infrastructure networks		○		□		▲		■		4	□-▲
2.4 Declining environmental image of the area	●	●		□	▲	●	■	○		7	▲
2.5 Site accessibility and visibility:											
● Accessibility to main transport routes (like expressway)		●		●	▲	○	■	■		6	▲-●
● Site visibility from main transportation routes		●		●	▲	○	■	■		6	▲-●
● Availability of public transportation		□		●	▲	○	▲	■		6	▲
2.6 Others											
Total									73%	47/64	▲-●

3. Economic Component: Financial/Investment Planning & Marketing

3.5 Project perception is economically not feasible		●		●		●	▲	○		5	▲
3.2 Impact of site remediation cost on project financial		●		▲	▲	●	▲	□		6	▲
3.1 High cost of building conservation & restoration		■		●	■	■	●	■		6	●-■
3.4 Scarcity of public & private funding		NA		●	▲	■	■	■		5	●
3.3 Declining property values and tax base		NA		○	●	■	□	▲		5	▲
3.4 Declining economic redevelopment market of the area				●	●	●	□	■		5	●
3.5 Others											
Total									67%	32/47	▲-●

4. Social-Psychological Component: Social Equity Planning and Safe Community Planning

4.1 Social inequities/injustice due to negative socioeconomic impacts		NA		▲		○	NA	▲		3	□-▲
4.2 Low educational levels and high unemployment rate among residents enhances problems of accessibility to opportunities (jobs).		NA		▲		○	NA	○		3	○-□
4.3 Social problems associated with dilapidated and/or abandoned buildings and sites (e.g. vandalism & crime)		NA		▲		○	▲	□		4	□-▲
4.4 Social stigmatization of the area		○		▲		●	□	■		5	▲
4.5 Others											
Total									47%	15/32	□-▲

Appendix A6.1 (Cont.): Impact Evaluation of Problems & Issues (Key Participants' Interviews - Exh. 6b)												
CASE STUDY 1: Gooderham & Worts Project – Toronto												
<i>Question (Cont.):</i> In your project, evaluate the impact of the following problems /issues on the overall site reuse and redevelopment process. (Click one for each item)	Key Participants/Informants & Their Responses ■ V. Strong / 5 ● Strong/ 4 ▲ Moderate/ 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0											
	P1	P2	P3	P4	P5	P6	P7	P8	%	Resp	Ave.	
5. Political-Organizational Component: Stakeholders' Consensus, Collaboration and Partnerships												
5.1 Conflicting goals & interests/values of primary stakeholders	□	●	■	■	●	▲	○			7	▲-●	
5.2 Lack of stakeholders' commitment to achieve objectives	■	▲	●	●	●	NA	▲			5	▲-●	
5.3 Lack of stakeholders' consensus on major objectives/issues	■	●	●	●	●	NA	○			6	▲-●	
5.4 Lack of stakeholders' organizational/collaborative commit.	■	●	▲	●	●	NA	▲			5	▲-●	
5.5 Lack of special redevelop. authority that is directly responsible	○	NA	▲	■	□	NA	▲			4	□-▲	
5.6 Others							Total	68%	27/40		▲-●	
6. Project Implementation: Implementation Packages and Phasing Plans												
6.1 Difficulty of project initiation due to risks & uncertainty	▲	■	○	●	●	●	■			7	▲-●	
6.2 Difficulty of phasing site remediation as a first and separate implementation package before actual site redevelopment	■	■	□	▲	□	▲				6	▲	
6.3 Difficulty of gradual implementation through phasing the overall site redevelopment into sub-area packages that are prioritized for site remediation and redevelopment due to:												
• Legal requirements for approved overall site remed. first	○	▲	□	●	□	▲				6	□-▲	
• Site conditions and the proposed reuse/redevelopment	○	▲	□	▲	■	■				4	□-▲	
6.4 Long time delays in the process	■	▲	●	■	▲	▲	■			6	▲-●	
6.5 Others							Total	73%	29/40		▲	
7. Key Policy Direction: Tax Increment Financing (TIF) or Tax Increment Equivalent Financing (TIEF) (Self-financing mechanism for site remediation). One major indicator/measure may be: "The impact of redevelopment on future property values and tax base of site and surrounding"												
7.1 After site redevelopment, the expected property tax increments for the site and surrounding properties will be relatively low for financing the initial site remediation cost		NA				NA	■			1	■	
7.2 Outline other problems/obstacles facing a (TIF) plan like:										1		
• Legal factors - Municipal Act		NA				NA	■			2	■	
• Institutional or organizational factors -	■	NA				NA	■			2	■	
							Total	17%	4/24		■	
8. Overall Multiple-component Planning Process and a Clear Future Vision												
8.5 Site problems are complex and interactive in nature like environmental contamination risks and liabilities versus:												
• Project economic feasibility and marketability,	●	■				●	■			4	●-■	
• Physical-functional declining image and blight,	□	▲				□	□			4	□-▲	
• Stakeholders' conflicting interests and objectives,	▲	●				●	□			4	▲-●	
• Social equity and security issues.	■	NA				□	□			2	□	
8.6 Difficulty of developing future site redev. vision due to:												
• Multiple-component problem complexity,	□	▲				●	▲	▲		5	▲	
• Stakeholders' multiplicity and varying views.	■	■			●	▲	○			4	▲-●	
8.7 Difficulty of integrating multiple planning processes including: site remediation, physical planning, financial planning & marketing, social equity planning & stakeholders' partnerships		■				●	○			3	▲-●	
8.8 Others							Total	46%	26/56		▲	

**Planning for Reuse and Redevelopment of Inner City
Blighted Industrial Sites – Canadian Context**

Appendix A6.2: Impact Evaluation of Policy Directions (Key Participants' Interviews, Exhibit 7b in Quest.)

CASE STUDY 1: Gooderham & Worts Project – Toronto

Question:

In your project, evaluate the impact of the following policy directions on the success of overall site reuse and redevelopment process. (Click one for each item &, if negative impact, indicate with minus sign)

Key Participants/Informants & Their Responses

■ V. Strong / 5 ● Strong / 4 ▲ Moderate/3
□ Weak / 2 ○ V. Weak / 1 - NA / 0

	P1	P2	P3	P4	P5	P6	P7	P8	%	Resp.	Ave.
1. Environmental - Legal Component: Site Remediation and Preparation Planning											
1.1 To address environmental contamination & site remediation in the beginning of the process in order to arrange for optimal & legally viable site remediation plan	●	○	■	●	▲	▲	▲			6	▲-●
1.2 To define and confine legal liability for contamination to viable limits (current & future liabilities)	○	○	■	▲	▲	▲	▲			6	□-▲
1.3 Conditional lift of future environmental liability from new purchasers of already cleaned-up sites.	NA		NA	●	▲	▲	▲			3	▲-●
1.4 Others (P1): MOE Sign off on SSRA etc.	■									1	■
										Total	67% 16/24 ▲-●
2. Physical-Functional Component: Land Use Planning, Urban design, Site & Building Design											
2.1 To prepare an inventory of existing blighted industrial sites in order to address the interrelated planning problems collectively	■	●	○	●	●	●	●			5	▲-●
2.2 To reclaim lost urban space through an adaptive reuse/ redevelopment of existing and potential resources	■	●	▲	●	■	●	●			6	●
2.3 To maintain a balance between heritage conservation & urban innovation in the context of urban transformation	▲	●	□	■	■	■	■			6	●
2.4 To aim at achieving responsive environments with a sense of place and community	○	●	●	■	●	■	■			6	▲-●
2.5 Others										Total	72% 23/32 ●
3. Economic Component: Financial/Investment Planning & Marketing											
3.1 To establish public-private partnership for project financing		NA	●	○	□	■	■			5	▲
3.2 To arrange for project marketing in the early stages of the process in order to secure potential developers, investors, and tenants		○	●	●	■	■	■			5	▲-●
3.3 To develop financial and other redevelopment incentives in order to create an attractive redevelopment package	○	○	●	□	■	■	■			5	□-▲
3.4 Availability of environmental liability insurance to cap site remediation costs and to control future liabilities of contamination	○	NA	▲	NA						4	□
3.5 Others										Total	59% 19/32 ▲
4. Social-Psychological Component: Social Equity Planning and Safe Community Planning											
4.1 To develop mechanisms that will secure accessibility of local residents to the newly provided opportunities (jobs)		○	○	●	▲					3	□
4.2 To foster social equity and justice through community participation in the decision making process		○	●	▲						3	□-▲
4.2 To aim at achieving socially safe environment (defensible space) through community participation		○	●	□	●					4	▲
4.4 Others										Total	42% 10/24 □-▲

Appendix A6.2 (Cont.): Impact Evaluation of Policy Directions (Key Participants' Interviews - Exh 7b)												
CASE STUDY 1: Gooderham & Worts Project – Toronto												
<i>Question:</i> In your project, evaluate the impact of the following policy directions on the success of overall site reuse and redevelopment process.(click one for each item &, if negative impact, indicate with minus sign)					Key Participants/Informants & Their Responses ■ V. Strong / 5 ● Strong / 4 ▲ Moderate/ 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0							
	P1	P2	P3	P4	P5	P6	P7	P8	%	Resp	Ave.	
5. Political-Organizational Component: Stakeholders' Consensus, Collaboration and Partnerships												
5.1 To develop a special redevelopment authority that is directly responsible for the reuse and redevelopment process. This may be in the form of a public authority, public-private, or public-private-community partnership	○	NA		○		▲	NA	NA		3	○-□	
5.2 To establish network linkages among main stakeholders in order to foster consensus, collaboration and partnership throughout the different stages of the process												
• Public-public partnership		▲		▲		○		NA		3	□-▲	
• Public-private partnership				▲		○		NA		2	□	
• Public-private-community partnership				▲		□		■		3	▲-●	
5.3 Others.									Total	34%	11/32	□-▲
6. Project Implementation: Implementation Packages and Phasing Plans												
6.1 To address site remediation as the first implementation package and then site reuse and redevelopment as a second package		NA		●		▲		■		3	●	
6.2 To adopt a gradual site remediation and redevelopment strategy (especially for large sites) through site subdivision into prioritized sub-area implementation packages.		NA		□		■		■		3	●	
6.3 Others.									Total	50%	8/16	●
7. Key Policy Direction: Tax Increment Financing (TIF) or Tax Increment Equivalent Financing (TIEF) (Self-financing mechanism for site remediation). One major indicator/measure may be: "The impact of redevelopment on future property values and tax base of site and surrounding"												
7.1 To develop a self-financing mechanism (like TIF/TIEF) to finance the cost of site remediation		NA		○		NA		■		2	▲	
7.2 Roughly estimate and relate the following: After redevelopment, future tax increments on the site (and surrounding properties) can capitalize initial site remediation cost within a period of:												
• Fifteen years		NA		○		NA				1	○	
• Twenty years				NA		NA				0	-	
• More than twenty years				NA		NA				0	-	
7.3 Other appropriate financing mechanisms for site		NA		▲		NA				1	▲	
									Total	13%	4/32	□-▲
8. Overall Planning Process and a Clear Future Vision												
8.1 Having a clear vision and/or plan for the project		○		●		●	■	■		5	●	
8.2 Commitment to planning especially in dealing with large sites		□		○		●				3	□-▲	
8.3 Adopting an integrative planning framework to link the major planning sub-processes including: site remediation, physical planning, project financing & marketing, social equity planning stakeholders' consensus & partnership		▲		▲		●	■	■		5	●	
8.4 Others									Total	54%	13/24	▲-●

Planning for Reuse and Redevelopment of Inner City Blighted Industrial Sites – Canadian Context										
Appendix A7.1: Impact Evaluation of Problems and Issues (Key Participants' Interviews – Exhibit 6b)										
CASE STUDY 2: Toronto Port Area - Port Centre Development Project										
<i>Question:</i> In your project, evaluate the impact of the following problems/ issues on the overall site reuse and redevelopment process. (Click one for each item.)	Key Participants/Informants & Their Responses ■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0									
	P1	P2	P3	P4	P5	P6	P7	%	Resp	Ave
	1. Environmental-Legal Component: Site Remediation and Preparation Planning									
1.1 Environmental contamination of site and/or buildings	■	■	●	●	■	●	○		7	●
1.2 Other human & natural ecosystems health hazard	NA	■	▲	●	■	▲	●		6	●
1.3 Legal liabilities of contamination and decontamination:										
● Current liabilities	○	□	●	●	●	▲	○		7	□-▲
● Future liabilities	○	□	●	●	■	▲	○		7	▲
● Real liabilities (certain like identified contamination)	○	▲	□	●	●	▲	○		7	□-▲
● Perceived liabilities (expected but not certain)	○	●	●	■	■	▲	○		6	▲
1.4 Current government approval process for site remediation:										
● Clarity and consistency of procedure	□	NA	▲	●	○		○		5	□
● Length of procedure (time delay)	□	▲	▲	□	○		○		6	□
● Government commitment to approval for site remediation	□	●	●	□	▲		○		6	□-▲
1.5 Others										
									TOTAL	92% 58/63 ▲
2. Physical-Functional Component: Land Use Planning, Urban design, Site & Building Design										
2.1 Unused or underutilized buildings/ sites:										
● Vacant or abandoned buildings/ sites	■	■	●	■	■	▲	▲		6	●
● Underutilized buildings/ sites	■	■	●	■	■	■	▲		5	●
2.2 Structural/physical dilapidation of buildings	NA	■	NA	■	■	■	NA		1	■
2.3 Deterioration of physical infrastructure networks	○	■	NA	■	●	□			4	▲
2.4 Declining environmental image of the area	●	■	●	■	▲	●	●		6	▲
2.5 Site accessibility and visibility:										
● Accessibility to main transportation routes (like expressway)	■	■	■	■	■	●	▲		6	●-■
● Site visibility from main transportation routes	■	■	■	■	■	●	▲		6	●-■
● Availability of public transportation	■	▲	▲	■	●	□	▲		7	▲-●
2.6 Others										
									TOTAL	73% 41/56 ●
3. Economic Component: Financial/Investment Planning & Marketing										
3.1 Project perception is economically not feasible	○	■	●	□	■	○	○		6	□
3.2 Impact of site remediation cost on project financial feasibility	▲	■	▲	□	●	□	○		6	□-▲
3.3 High cost of building conservation, renovation, & restoration	NA	■	NA	○	●	NA	○		3	□
3.4 Scarcity of public & private funding	NA	■	▲	○	●	▲	○		5	□
3.5 Declining property values and tax base	●	■	●	○	■	NA	○		5	▲
3.6 Declining economic redevelopment market of the area	●	■	■	○	●	○	○		6	□-▲
3.7 Others (P1: Market impacts on local retail market)	■								1	■
									TOTAL	74% 32/43 □-▲
4. Social-Psychological Component: Social Equity Planning and Safe Community Planning										
4.1 Social inequities/injustice due to negative socioeconomic impacts	▲	○	NA	□	●	○	●		6	□-▲
4.2 Low educational levels and high unemployment rate among residents enhances problems of inaccessibility to jobs.	▲	NA	NA	▲	▲	○	○		5	□
4.3 Social problems associated with dilapidated and/or abandoned buildings and sites (e.g., vandalism and crime)	□	□	○	▲	▲	NA	○		6	□
4.4 Social stigmatization of the area	●	NA	NA	□	●	□	NA		4	▲
4.5 Others										
									TOTAL	75% 21/28 □-▲

Appendix A7.1 (Cont.): Impact Evaluation of Problems & Issues (Participants' Interviews - Exh. 6b)

CASE STUDY 2: Toronto Port Area - Port Centre Development Project

Question (Cont.):
 In your project, evaluate the impact of the following problems /issues on the overall site reuse and redevelopment process.
 (Click one for each item)

Key Participants/Informants & Their Responses
 ■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3
 □ Weak / 2 ○ V. Weak / 1 - NA / 0

5. Political-Organizational Component: Stakeholders' Consensus, Collaboration and Partnerships

	P1	P2	P3	P4	P5	P6	P7	%	Resp	Ave	
5.1 Conflicting goals, interests, and values of primary stakeholders	■	●	■	●	■	■	■		7	●-■	
5.2 Lack of stakeholders' commitment to achieve objectives	▲	○	●	●	●	■	■		7	▲-●	
5.3 Lack of stakeholders' consensus on major objectives & issues	■	○	■	●	■	■	■		7	●-■	
5.4 Lack of stakeholders' organizational & collaborative commitment	●	○	●	●	■	■	■		7	●	
5.5 Lack of special redevelop. authority that is directly responsible	■	■	■	□	■	NA	○		4	▲	
5.6 Others								TOTAL	91%	32/35	●

6. Project Implementation: Implementation Packages and Phasing Plans

6.1 Difficulty of project initiation due to high risks & uncertainty.	■	●	●	□	■	■	○		6	▲-●	
6.2 Difficulty of phasing site remediation as a first and separate implementation package before actual site reuse/redevelopment	■	■	▲	○	●	▲	○		5	□	
6.3 Difficulty of gradual implementation through phasing the overall site redevelopment into sub-area packages that are prioritized for site remediation and redevelopment due to:											
● Legal requirements for approved overall site remediation first.			▲	○	■	NA	○		3	○-□	
● Site conditions and the proposed reuse/redevelopment project.			▲	○	●	NA	○		4	□	
6.4 Long time delays in the process	■	○	●	○	■	■	○		6	□-▲	
6.5 Others								TOTAL	69%	24/35	□-▲

7. Key Policy Direction: Tax Increment Financing – TIF(or Tax Increment Equivalent Financing-TIEF)
 (Self-financing mechanism for site remediation). One major indicator/measure may be:
 "The impact of redevelopment on future property values and tax base of site and surrounding"

7.1 After site redevelopment, the expected property tax increments for the site and surrounding properties will be relatively low for financing the initial site remediation cost.	■	○	NA	■	●	○	NA		3	□-▲	
7.2 Outline other problems/obstacles facing a (TIF) plan like:			NA	■	▲	■	NA		1	□-▲	
● Legal factors - Municipal Act			NA	■	▲	■	NA		1	■	
● Institutional or organizational factors -											
								TOTAL	24%	5/21	▲

8. Overall Multiple-component Planning Process and a Clear Future Vision

8.1 Site problems are complex and interactive in nature like environmental contamination risks and liabilities versus:											
● project economic feasibility and marketability,		●	●	▲	■	○	▲		6	▲-	
● physical-functional declining image and blight,			●	▲	■	○	▲		5	▲	
● stakeholders' conflicting interests and objectives,			■	●	●	■	▲		5	●	
● social equity and security issues.			□	□	▲	○	▲		5	□	
8.2 Difficulty of developing future site redevelopment vision due to:											
● multiple-component problem complexity,			▲	●	■	●	▲		5	●	
● stakeholders' multiplicity and varying views.			■	●	■	●	▲		5	●	
8.3 Difficulty of integrating multiple planning processes including: site remediation, physical planning and design, financial planning and marketing, social equity planning, & stakeholders' partnerships			▲	●	▲	■	▲		5	▲-	
8.4 Others								TOTAL	73%	36/49	▲-

Planning for Reuse and Redevelopment of Inner City Blighted Industrial Sites – Canadian Context											
Appendix A7.2: Impact Evaluation of Policy Directions (Participants' Questionnaire – Exhibit 7b)											
CASE STUDY 2: Toronto Port Area - Port Centre Development Project											
<i>Question:</i> In your project, evaluate the impact of the following policy directions on the success of overall site reuse and redevelopment process. (Click one for each item &, if negative impact, indicate with minus sign)	Key Participants/Informants & Their Responses ■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0										
	P1	P2	P3	P4	P5	P6	P7	%	Resp	Ave	
1. Environmental - Legal Component: Site Remediation and Preparation Planning											
1.1	To address environmental contamination & site remediation in the beginning of the process in order to arrange for an optimal and legally viable site remediation plan	●	■	■	●	●	●	□		7	●
1.2	To define and confine legal liability for contamination/decontamination to viable limits (current and future liabilities)	■	■	●	●	●	●	□		7	●
1.3	Conditional lift of future liability (of probable contamination) from new purchasers of already cleaned-up sites.	□	■	●	●	■	●	□		7	▲-●
1.4	Others									TOTAL	100% 21/21 ●
2. Physical-Functional Component: Land Use Planning, Urban design, Site & Building Design											
2.1	To prepare an inventory of existing blighted industrial sites in order to address the interrelated planning problems collectively	□	□	■	○	▲	NA	▲		6	□-▲
2.2	To reclaim lost urban space through an adaptive reuse/redevelopment of existing and potential resources	●	■	■	○	●	■	○		5	▲
2.3	To maintain a balance between heritage conservation and urban innovation in the context of urban transformation	▲	■	NA	○	■	■	○		4	□-▲
2.4	To aim at achieving responsive environments with a sense of place and community	▲	■	▲	●	■	■	○		5	▲
2.5	Others									TOTAL	71% 20/28 □-▲
3. Economic Component: Financial/Investment Planning & Marketing											
3.1	To establish public-private partnership for project financing	■	○	●	●	●	●	■		5	▲
3.2	To arrange for project marketing in the early stages of the process in order to secure potential developers, investors, and tenants	NA	■	■	●	●	▲	▲		5	▲-●
3.3	To develop financial and other redevelopment incentives in order to create an attractive redevelopment package	□	■	●	●	■	NA	■		5	●
3.4	Availability of environmental liability insurance to cap site remediation costs and to control future liabilities of contamination	NA	■	□	▲	■	○	NA		4	▲-●
3.5	Others									TOTAL	68% 19/28 ▲-●
4. Social-Psychological Component: Social Equity Planning and Safe Community Planning											
4.1	To develop mechanisms that will secure accessibility of local residents to the newly provided opportunities (like jobs)	●	○	●	▲	■	▲	●		7	▲
4.2	To foster social equity and justice through community participation in the decision making process	▲	■	●	▲	●	▲	●		6	▲-●
4.3	To aim at achieving socially safe environment (defensible space) through community participation	▲	■	●	▲	■	NA	NA		4	▲-●
4.4	Others									TOTAL	81% 17/21 ▲-●

Appendix A7.2 (Cont.): Impact Evaluation of Policy Directions (Participants' Questionnaire-Exhibit 7b)											
CASE STUDY 2: Toronto Port Area - Port Centre Development Project											
Question: In your project, evaluate the impact of the following policy directions on the success of overall site reuse and redevelopment process. (Click one for each item &, if negative impact, indicate with minus sign)	Key Participants/Informants & Their Responses										
	■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3										
	□ Weak / 2 ○ V. Weak / 1 - NA / 0										
	P1	P2	P3	P4	P5	P6	P7	%	Resp	Ave	
5. Political-Organizational Component: Stakeholders' Consensus, Collaboration and Partnerships											
5.1 To develop a special redevelopment authority that is directly responsible for the reuse and redevelopment process. This may be in the form of a public authority, public-private, or public-private-community partnership. (P3) Private Also.	NA	○	■	●	■	■	●		6	●	
5.2 To establish network linkages among main stakeholders in order to foster consensus, collaboration and partnership throughout the different stages of the process											
● Public-public partnership	●		■	●	●	■			5	●	
● Public-private partnership	●		■	■	●	■	●		5	●	
● Public-private-community partnership	●		■	■	●	■	●		5	●	
5.3 Others.								TOTAL	75%	21/28	●
6. Project Implementation: Implementation Packages and Phasing Plans											
6.1 To address site remediation as the first implementation package & then site reuse & redevelopment as a 2 nd package			▲	○	■	▲	■		5	▲	
6.2 To adopt a gradual site remediation and redevelopment strategy (especially for large sites) through site subdivision into prioritized sub-area implementation packages.	NA		●	▲	▲	▲	NA		4	▲	
6.3 Others.								TOTAL	64%	9/14	▲
7. Key Policy Direction: Tax Increment Financing - TIF (or Tax Increment Equivalent Financing-TIEF) (Self-financing mechanism for site remediation). One major indicator/measure may be: "The impact of redevelopment on future property values and tax base of site and surrounding"											
7.1 To develop a self-financing mechanism (like TIF/TIEF) to finance the cost of site remediation within the Canadian context.	■		■	▲	■		NA		4	●- ■	
7.2 Roughly estimate and relate the following: After redevelopment, future tax increments on the site (and surrounding properties) can capitalize initial site remediation cost within a period of:				?							
● Fifteen years			■		▲	■	NA		3	●	
● Twenty years					●	■	NA		2	●-	
● More than twenty years					■	■	NA		2	■	
7.3 Other appropriate financing mechanisms for site remediation					▲		NA		1	▲	
								TOTAL	34%	12/35	●
8. Overall Planning Process and a Clear Future Vision											
8.1 Having a clear vision and/or plan for the project	■	●	●	■	■	■	▲		7	●-	
8.2 Commitment to planning especially in dealing with large sites	■		●	■	■	■	▲		6	●-	
8.3 Adopting an integrative planning framework to link the major planning sub-processes including: site remediation, physical planning and design, project financing and marketing, social equity/security planning, and stakeholders' consensus & partnership			■	■	●	●	●		5	●- ■	
8.4 Others								TOTAL	86%	18/21	●-■

Planning for Reuse and Redevelopment of Inner City
Blighted Industrial Sites – Canadian Context

Appendix A8.1: Impact Evaluation of Problems and Issues (Key Participants' Interviews - Exhibit 6b)

CASE STUDY 3: Cooksville Quarry Site – Mississauga

<p><i>Question:</i> In your project, evaluate the impact of the following problems/ issues on the overall site reuse and redevelopment process. (Click one for each item)</p>	<p>Key Participants/Info. & Their Response Value</p> <p>■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0</p>								
	P1	P2	P3	P4	P5	P6	%	Resp	Ave.

1. Environmental-Legal Component: Site Remediation and Preparation Planning

1.1 Environmental contamination of site and/or buildings	▲	■	●	■	▲	■		6	●
1.2 Other human & natural ecosystems health hazard	▲	●	●	▲	○	□		6	▲
1.3 Legal liabilities of contamination and decontamination:									
• Current liabilities		●	●	□	●	■		5	●
• Future liabilities		●	●	●	▲	■		5	●
• Real liabilities (certain like identified contamination)		●	●	□	○	■		5	▲
• Perceived liabilities (expected but not certain)		●	□	□	■	■		5	▲-●
1.4 Current government approval process for site remediation:									
• Clarity and consistency of procedure		▲	●	●	●	■		5	●
• Length of procedure (time delay)		▲	▲	▲	□	■		5	▲
• Government commitment to approval for site remediation		▲	●	●	□	■		5	▲-●
1.5 Others (P6): Former Decommissioning Guidelines, Feb.						■		1	■
						Total	86%	48/54	▲-●

2. Physical-Functional Component: Land Use Planning, Urban design, Site & Building Design

2.1 Unused or underutilized buildings/ sites:									
• Vacant or abandoned buildings/ sites	NA		NA		○	NA		1	○
• Underutilized buildings/ sites	NA		NA		○	NA		1	○
2.2 Structural/physical dilapidation of buildings	NA		NA		○	NA		1	○
2.3 Deterioration of physical infrastructure networks	NA		NA		○	NA		1	○
2.4 Declining environmental image of the area	▲		NA		NA	NA		1	▲
2.5 Site accessibility and visibility:									
• Accessibility to main transportation routes (like expressway)	▲		▲		■	NA		3	▲-●
• Site visibility from main transportation routes			▲		■	NA		2	●
• Availability of public transportation			●		■	NA		2	●-■
2.6 Others								Total	25% 12/48 ▲

3. Economic Component: Financial/Investment Planning & Marketing

3.1 Project perception is economically not feasible			NA		○	NA		1	○
3.2 Impact of site remediation cost on project financial feasibility			NA		■	■		2	■
3.3 High cost of building conservation, renovation, & restoration			NA		NA	NA		-	-
3.4 Scarcity of public & private funding			NA		■	NA		1	■
3.5 Declining property values and tax base			NA		NA	NA		-	-
3.6 Declining economic redevelopment market of the area			NA		▲	NA		1	▲
3.7 Others:								Total	14% 5/36 ▲-●

4. Social-Psychological Component: Social Equity Planning and Safe Community Planning

4.1 Social inequities/injustice due to negative socioeconomic	NA		NA		▲	NA		1	▲
4.2 Low educational levels and high unemployment rate among residents enhances problems of inaccessibility to jobs.	NA		NA		○	NA		1	○
4.3 Social problems associated with dilapidated and/or abandoned buildings and sites (e.g., vandalism and crime)	○		NA		○	NA		2	○
4.4 Social stigmatization of the area	▲		NA		○	NA		2	□
4.5 Others								Total	25% 6/24 ○-□

Appendix A8.1 (Cont.): Impact Evaluation of Problems & Issues (Key Participants' Interviews - Exh. 6b)										
CASE STUDY 3: Cooksville Quarry Site – Mississauga										
Question: <i>In your project, evaluate the impact of the following problems /issues on the overall site reuse and redevelopment process.</i> (Click one for each item)	Key Participants/Info. & Their Response Value ■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0									
	P1	P2	P3	P4	P5	P6	%	Resp	Ave.	
	5. Political-Organizational Component: Stakeholders' Consensus, Collaboration and Partnerships									
5.1	Conflicting goals, interests, and values of primary stakeholders	○	■	●	○	▲		4	□	
5.2	Lack of stakeholders' commitment to achieve objectives	○	■	□	■	▲		4	□	
5.3	Lack of stakeholders' consensus on major objectives & issues	□	■	▲	■	▲		4	□-▲	
5.4	Lack of stakeholders' organizational & collaborative commitment	□	■	○	■	▲		4	□	
5.5	Lack of special redevelop. authority that is directly responsible	■	■	○	■	▲		3	▲	
5.6	Others						Total	63%	19/3	□-▲
6. Project Implementation: Implementation Packages and Phasing Plans										
6.1	Difficulty of project initiation due to high risks & uncertainty.	■	■	▲	■	●		3	●	
6.2	Difficulty of phasing site remediation as a first and separate implementation package before actual site reuse/redevelopment	■	■	○	■	●		3	▲-●	
6.3	Difficulty of gradual implementation through phasing the overall site redevelopment into sub-area packages that are prioritized for site remediation and redevelopment due to:									
	• Legal requirements for approved overall site remediation first.			□	●	●		3	▲	
	• Site conditions and the proposed reuse/redevelopment project.			▲	●	▲		3	▲	
6.4	Long time delays in the process	■	■	▲	●	■		3	●	
6.5	Others						Total	50%	15/3	▲-●
7. Key Policy Direction: Tax Increment Financing (TIF) or Tax Increment Equivalent Financing (TIEF) (Self-financing mechanism for site remediation). One major indicator/measure may be: "The impact of redevelopment on future property values and tax base of site and surrounding"										
7.1	After site redevelopment, the expected property tax increments for the site and surrounding properties will be relatively low for financing the initial site remediation cost.	■	■	NA	○	■		1	○	
7.2	Outline other problems/obstacles facing a (TIF) plan like:									
	• Legal factors - Municipal Act			●	■	■		2	●-■	
	• Institutional or organizational factors -				▲	■		1	▲	
							Total	22%	4/18	▲-●
8. Overall Multiple-component Planning Process and a Clear Future Vision										
8.1	Site problems are complex and interactive in nature like environmental contamination risks and liabilities versus:									
	• project economic feasibility and marketability,			□	■	■		2	▲-●	
	• physical-functional declining image and blight,			○	■	■		2	▲	
	• stakeholders' conflicting interests and objectives,			▲	■	■		2	●	
	• social equity and security issues.			●	■	■		2	●-■	
8.2	Difficulty of developing future site redevelopment vision due to:									
	• multiple-component problem complexity,			□	●	■		2	▲	
	• stakeholders' multiplicity and varying views.			▲	●	■		2	▲-●	
8.3	Difficulty of integrating multiple planning processes including: site remediation, physical planning and design, financial planning and marketing, social equity planning, and stakeholders' partnerships			▲	▲	■		2	▲	
8.4	Others						Total	33%	14/4	▲-●

Planning for Reuse and Redevelopment of Inner City Blighted Industrial Sites – Canadian Context										
Appendix A8.2: Impact Evaluation of Policy Directions (Key Participants' Interviews - Exhibit 7b)										
CASE STUDY 3: Cooksville Quarry Site – Mississauga										
<i>Question:</i> In your project, evaluate the impact of the following policy directions on the success of overall site reuse and redevelopment process. (Click one for each item &, if negative impact, indicate with minus sign)						Key Participants/Info. & Their Response Value ■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0				
P1	P2	P3	P4	P5	P6	%	Resp.	Ave.		
1. Environmental - Legal Component: Site Remediation and Preparation Planning										
1.1		■	●	●	□	▲		5	▲-●	
1.2		●	■	▲	○	▲		5	▲	
1.3		▲	□	□	○	?		4	□	
1.4										
						Total	78%	14/18	▲	
2. Physical-Functional Component: Land Use Planning, Urban design, Site & Building Design										
2.1			●		▲			2	▲-●	
2.2			□		■			2	▲-●	
2.3		○	●		■			3	▲	
2.4			●		▲			2	▲-●	
2.5						Total	38%	9/24	▲-●	
3. Economic Component: Financial/Investment Planning & Marketing										
3.1			●					1	●	
3.2			NA		■			1	■	
3.3			NA		■			1	■	
3.4			NA		■			1	■	
3.5						Total	17%	4/24	●-■	
4. Social-Psychological Component: Social Equity Planning and Safe Community Planning										
4.1			NA		■			1	■	
4.2			▲		■			2	●	
4.3			○		■			2	▲	
4.4										
						Total	28%	5/18	●	

Appendix A8.2 (Cont.): Impact Evaluation of Policy Directions (Key Participants' Interviews-Exh. 7b)

CASE STUDY 3: Cooksville Quarry Site – Mississauga

<p><i>Question:</i> In your project, evaluate the impact of the following policy directions on the success of overall site reuse and redevelopment process. (Click one for each item &, if negative impact, indicate with minus sign)</p>	<p>Key Participants/Info. & Their Response Value</p> <p>■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0</p>								
	P1	P2	P3	P4	P5	P6	%	Resp.	Ave.

5. Political-Organizational Component: Stakeholders' Consensus, Collaboration and Partnerships

5.1	To develop a special redevelopment authority that is directly responsible for the reuse and redevelopment process. This may be in the form of a public authority, public-private, or public-private-community partnership. (P3) Private Also.			NA		▲			1	▲
5.2	To establish network linkages among main stakeholders in order to foster consensus, collaboration and partnership throughout the different stages of the process									
	• Public-public partnership			NA		▲			1	▲
	• Public-private partnership			▲		▲			2	▲
	• Public-private-community partnership			NA		▲			1	▲
5.3	Others.					Total	21%		5/24	▲

6. Project Implementation: Implementation Packages and Phasing Plans

6.1	To address site remediation as the first implementation package and then site reuse and redevelopment as a second package			●		○			2	□-▲
6.2	To adopt a gradual site remediation and redevelopment strategy (especially for large sites) through site subdivision into prioritized sub-area implementation packages.	■		□		■			3	●
6.3	Others.					Total	42%		5/12	▲

7. Key Policy Direction: Tax Increment Financing (TIF) or Tax Increment Equivalent Financing (TIEF)
 (Self-financing mechanism for site remediation). One major indicator/measure may be:
 "The impact of redevelopment on future property values and tax base of site and surrounding"

7.1	To develop a self-financing mechanism (like TIF) to finance the cost of site remediation within the Canadian context.			NA		■			1	■
7.2	Roughly estimate and relate the following: After redevelopment, future tax increments on the site (and surrounding properties) can capitalize initial site remediation cost within a period of:			NA						
	• Fifteen years					■			1	■
	• Twenty years			NA		▲			1	▲
	• More than twenty years			NA		□			1	□
7.3	Other appropriate financing mechanisms for site remediation									
						Total	17%		4/24	▲-●

8. Overall Planning Process and a Clear Future Vision

8.1	Having a clear vision and/or plan for the project	■		●		●			3	●-■
8.2	Commitment to planning especially in dealing with large sites	■		●		●			3	●-■
8.3	Adopting an integrative planning framework to link the major planning sub-processes including: site remediation, physical planning and design, project financing and marketing, social equity/security planning, and stakeholders' consensus & partnership			▲		▲			2	▲
8.4	Others					Total	44%		8/18	●

Appendix A8.3: Official Plan and Existing Zoning Designations and Required OPA and Rezoning (Jannock Properties, 1996)			
Official Plan Details		Official Plan Details	
City Primary Plan:	Residential	Existing Zoning:	M2 which permits industrial and manufacturing undertakings
Dundas-Fairview Secondary Plan designations (Feb. 13, 1980)	Long-Term Residential Area which permits a variety of dwelling unit types to a population of approx. 10,800		R4 which permits detached dwellings on lots with min. frontages of 15m (49ft)
Proposed Secondary Plan Designations	<ul style="list-style-type: none"> Residential Low Density II to permit detached, semi-detached duplex and street row dwellings within a density range of 17-30 units per net hectare (76-12upna) Residential Medium Density I to permit semi-detached, triplex, fourplex, row and street row dwellings within a density range of 25-50units per net hectare (10-20 upna). Residential Medium Density II to permit row, street row, back-to-back, and stacked row dwellings, apartments and other forms of horizontal multiple dwellings within a density range of 45-111 units per net hectare (18-45 upna). Residential High Density I to permit back-to back and stacked row dwellings, and apartments within a density range of 99-148 units per net hectare (40-60 upna). Residential High Density II to permit apartments within a density range of 198-271 units per net hectare (80-110upna) 	Application for Zoning By-law Amendment:	<ul style="list-style-type: none"> R4 – Special Section to permit detached dwellings on lots with minimum lot frontages of 11m (36ft). R5 – Special Section to permit detached dwellings on lots with minimum lot frontages of 9.75 (32ft). RM2 – Special Section to permit semi-detached dwellings on lots with minimum lot frontages of 13.6m (45ft). RM5 – Special Section to permit street row dwellings on lots with minimum lot frontages of 6.8m (22ft) and/or semi-detached dwellings with minimum frontages of 13.6m (45ft). RM7D4 – Special Section to permit duplexes, triplexes, fourplexes, row dwellings, back-to-back row dwellings, and stacked row dwellings and other forms of multiple housing.
	<ul style="list-style-type: none"> Neighborhood Commercial to permit a neighborhood centre with a gross leasable area of 7,432m²-9,290m² (80,000-100,000 sq. ft.). Conventional Commercial to permit a convenience centre, including gas bar and car wash, with a gross leasable area of 929 m²-1,858 m² (10,000-20,000 sq ft). Highway Commercial/Office Commercial to permit a gas bar, car wash, and automatic related uses with a gross leasable area of 2,323 m²-3,716 m² (25,000-40,000 sq ft) and office commercial uses with a gross leasable area of 1,394 m² - 1,858 m² (15,000-20,000 sq ft), respectively. Elementary Separate School to permit a 2.4 ha (5.93 ac) separate school site. Neighborhood Parkland to permit 8.92 ha (222 ac) of neighborhood parkland. Greenbelt to permit 0.58 ha (1.43 ac) of greenbelt and a 4.0 ha (10 ac) storm water management facility. Open Space to permit 1.66 ha (4.1 ac) of buffer area. Utility to permit a 0.05 ha (0.15 ac) utility block. 		<ul style="list-style-type: none"> RM7D5 – Special Section to permit apartments and other forms of multiple housing. DC – Special Section to permit a neighborhood centre and a convenience commercial centre. AC6 – Special Section and RCL3 – Special Section to permit automobile related used and offices, respectively. H-RM5 to permit an elementary separate school. O1 to permit a park. O3 – Special Section to permit a utility. G to permit greenbelt. G – Special Section to permit a storm water management facility and buffer areas.

Planning for Reuse and Redevelopment of Inner City Blighted Industrial Sites – Canadian Context													
Appendix A9.1: Impact Evaluation of Problems and Issues (Participants' Questionnaire – Exhibit 6b)													
CASE STUDY 4: 241 Stuart St. & CN Yard - West Harbourfront Dev. Study (WHDS)-Hamilton													
<i>Question:</i> In your project, evaluate the impact of the following problems/ issues on the overall site reuse and redevelopment process. (Click one for each item.)	Key Participants/Informants & Their Responses ■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0												
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	%	Resp	Ave.
	1. Environmental-Legal Component: Site Remediation and Preparation Planning												
1.1 Environmental contamination of site and/or buildings	■	■	■	■	●	●	●	▲	■	●		9	●-■
1.2 Other human & natural ecosystems health hazard	■	●	▲	■		●	□	□		●		7	▲-●
1.3 Legal liabilities of contamination and decontamination:													
● Current liabilities	■	■	□		▲	▲	▲	▲		●		7	▲-●
● Future liabilities	■	■	●		●	▲	●	●		●		7	●
● Real liabilities (certain like identified contamination)	■	■	●		●	▲	▲	▲		▲		7	●
● Perceived liabilities (expected but not certain)	●	■	■		●	▲	●	■		■		7	●-■
1.4 Current government approval process for site remediation:													
● Clarity and consistency of procedure	■	●	●		▲	▲	●	▲	■	□		9	▲-●
● Length of procedure (time delay)	●	▲	●		▲	▲	●	●		□		8	▲-●
● Government commitment to approval for site	■	■	■		▲	□	■	▲	■	□		8	●
1.5 Others													
												TOTAL	77% 69/90 ●
2. Physical-Functional Component: Land Use Planning, Urban Design, Site & Building Design													
2.1 Unused or underutilized buildings/ sites:													
● Vacant or abandoned buildings/ sites	●	●	○	□	NA	●	●	▲		▲		7	▲
● Underutilized buildings/ sites	■	▲	○	□	NA	●	▲	▲		▲		7	▲
2.2 Structural/physical dilapidation of buildings	●	●	NA	□		●	●	▲		▲		6	▲-●
2.3 Deterioration of physical infrastructure networks	●	▲	○	□	NA	▲	▲	▲		●		7	□-▲
2.4 Declining environmental image of the area	■	□	○	▲	NA	▲	●	■		▲		8	▲
2.5 Site accessibility and visibility:													
● Accessibility to main transportation routes (like expressway)	■	▲	○	▲	NA	●	□			▲		7	▲
● Site visibility from main transportation routes	■	●	○	●	NA	▲	▲	▲		□		7	▲
● Availability of public transportation	●	□	□	●	NA	▲	▲	■		▲		8	▲
2.6 Others (P2: Surrounding Uses and Use Designation)		●										1	●
												TOTAL	72% 58/81 ▲-●
3. Economic Component: Financial/Investment Planning & Marketing													
3.1 Project perception is economically not feasible	■	●	▲	□	■	●	■	■	●	●		7	▲-●
3.2 Impact of site remediation cost on project financial	■	■	■	■	▲	●	■	■	●	●		7	●
3.2 High cost of building conservation, renovation, &	■	●	NA	▲	■	●	■	■	▲	▲		6	▲-●
3.4 Scarcity of public & private funding	■	■	▲	▲	■	▲	■	■	●	●		7	▲
3.5 Declining property values and tax base	■	▲	NA	□		●	■	■	■	●		6	▲-●
3.6 Declining economic redevelopment market of the area	■	□	○	□	■	▲	■	■	■	▲		7	□-▲
3.7 Others													
												TOTAL	67% 40/60 ▲-●
4. Social-Psychological Component: Social Equity Planning and Safe Community Planning													
4.1 Social inequities due to negative socioeconomic impacts	●	▲	○	■	■	▲	○	■	▲	▲		6	□-▲
4.2 Low educational levels & high unemployment rate among residents enhances problems of inaccessibility to jobs.	●	▲	NA	□		□	■	NA		□		5	□-▲
4.3 Social problems associated with dilapidated and/or abandoned buildings and sites (e.g., vandalism and crime)	●	●	NA	□		□	■	■		□		6	□-▲
4.4 Social stigmatization of the area	●	●	NA	▲	■	□	■	■	■	□		7	▲-●
4.5 Others													
												TOTAL	60% 24/40 □-▲

Appendix A9.1 (Cont.): Impact Evaluation of Problems & Issues (Participants' Questionnaire – Exh. 6b)

CASE STUDY 4: 241 Stuart St. & CN Yard - West Harbourfront Dev. Study (WHDS)-Hamilton

<p><i>Question:</i> In your project, evaluate the impact of the following problems /issues on the overall site reuse and redevelopment process. (Click one for each item)</p>	<p>Key Participants/Informants & Their Responses</p> <p>■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0</p>												
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	%	Resp	Ave

5. Political-Organizational Component: Stakeholders' Consensus, Collaboration and Partnerships

5.1	Conflicting goals, interests & values of primary	●	●	○			▲		●	■	●		7	▲-●
5.2	Lack of stakeholders' commitment in general to achieve	●	▲	○			▲		●		▲		6	▲
5.3	Lack of stakeholders' consensus on major objectives	●	▲	○			▲		●		▲		6	▲
5.4	Lack of stakeholders' organizational and collaborative	●	□	○			▲		●		▲		6	□-▲
5.5	Lack of special redevelopment authority that is directly	●		●			▲		●		●		5	▲-●
5.6	Others (P2: Political Support)		●										1	●
TOTAL											60%	31/51	▲-●	

6. Project Implementation: Implementation Packages and Phasing Plans

6.1	Difficulty of project initiation due to high risks &	●		●			●		●		●		5	●
6.2	Difficulty of phasing site remediation as a first and separate implementation package before actual site reuse/	●		●			▲		▲		▲		5	▲-●
6.3	Difficulty of gradual implementation through phasing the overall site redevelopment into sub-area packages that are prioritized for site remediation and redevelopment due to: ● Legal requirements for approved overall site remediation first.	●		●			▲		●		▲		5	▲-●
		●		■			▲		▲		▲		5	▲-●
6.4	Long time delays in the process	●		●			●		●		●		5	●
6.5	Others													
TOTAL											50%	25/50	▲-●	

7. Key Policy Direction: Tax Increment Financing (TIF) or Tax Increment Equivalent Financing (TIEF) (Self-financing mechanism for site remediation). One major indicator/measure may be: "The impact of redevelopment on future property values and tax base of site and surrounding"

7.1	After site redevelopment, the expected property tax increments for the site and surrounding properties will be relatively low for financing the initial site remediation cost.	■					▲		▲		□		4	▲
7.2	Outline other problems/obstacles facing a (TIF) plan like: ● Legal factors - Municipal Act	■					▲		▲		●		4	▲-●
		▲					▲		●		●		4	▲-●
TOTAL											40%	12/30	▲-●	

8. Overall Multiple-component Planning Process and a Clear Future Vision

8.1	Site problems are complex and interactive in nature like environmental contamination risks and liabilities versus: ● project economic feasibility and marketability, ● physical-functional declining image and blight, ● stakeholders' conflicting interests and objectives, ● social equity and security issues.	■		▲			▲		●		●		5	●
		●		○			▲		▲		●		5	▲
		●		○			□		■		●		5	▲
		●		○			□		NA		●		4	▲
8.2	Difficulty of developing future site redevelop. vision due to: ● stakeholders' multiplicity and varying views.	●		▲			▲		●		▲		5	▲-●
		■		□			▲		●		●		5	▲-●
8.3	Difficulty of integrating multiple planning processes including: site remediation, physical planning and design, financial planning and marketing, social equity planning, &	■		□			□		●		▲		5	▲
8.4	Others (P2: Planning Strategy)		●										1	●
TOTAL											49%	35/71	▲-●	

Planning for Reuse and Redevelopment of Inner City Blighted Industrial Sites – Canadian Context													
Appendix A9.2: Impact Evaluation of Policy Directions (Participants' Questionnaire – Exhibit 7b)													
CASE STUDY 4: 241 Stuart St. & CN Yard-West Harbourfront Dev. Study (WHDS)-Hamilton													
<i>Question:</i> In your project, evaluate the impact of the following policy directions on the success of overall site reuse and redevelopment process. (Click one for each item &, if negative impact, indicate with minus sign)	Key Participants/Informants & Their Responses ■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0												
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	%	Resp	Ave.
1. Environmental - Legal Component: Site Remediation and Preparation Planning													
1.1 To address environmental contamination & site remediation in the beginning of the process in order to arrange for optimal & legally viable site remediation plan	■	●	■	▲	□	○	▲	■	●			8	●
1.2 To define and confine legal liability for contamination/decontamination to viable limits (current & future liabilities)	■	▲	?	●	▲	□	○	●				6	▲-●
1.3 Conditional lift of future liability (of probable contamination) from new purchasers of already cleaned-up sites.	■	●	?	NA	□	○	■					5	▲-●
1.4 Others													
												TOTAL	53%19/30 ▲-●
2. Physical-Functional Component: Land Use Planning, Urban design, Site & Building Design													
2.7 To prepare an inventory of existing blighted industrial sites in order to address the interrelated planning problems collectively	●	■	○	▲	▲	▲	▲	▲				7	▲
2.8 To reclaim lost urban space through an adaptive reuse/redevelopment of existing and potential resources	■	■	○	▲	▲	▲	▲	●				7	▲-●
2.9 To maintain a balance between heritage conservation and urban innovation in the context of urban transformation	●	●	○	▲	▲	▲	▲	●				7	▲
2.10 To aim at achieving responsive environments with a sense of place and community	●	▲	○	▲	●	●	■	■				8	▲-●
2.11 Others (P2: Underutilized Infrastructure)		▲										1	▲
												TOTAL	73%30/41 ▲
3. Economic Component: Financial/Investment Planning & Marketing													
3.1 To establish public-private partnership for project financing	■	●	●	▲	●	●	●	●				7	●
1.2 To arrange for project marketing in the early stages of the process in order to secure potential developers, investors and tenants	■	●	■	▲	●	▲	▲	■				7	●
1.3 To develop financial and other redevelopment incentives in order to create an attractive redevelopment package	■	●	■	●	●	▲	▲	▲				6	●
1.4 Availability of environmental liability insurance to cap site remediation costs and to control future liabilities of contamination	■	●	■	●	▲	○	▲					6	▲-●
3.5 Others													
												TOTAL	55%26/40 ●
4. Social-Psychological Component: Social Equity Planning and Safe Community Planning													
1.1 To develop mechanisms that will secure accessibility of local residents to newly provided opportunities (like jobs)	●	□	○	▲	▲	○	▲					7	□-▲
1.2 To foster social equity and justice through community participation in the decision making process	●	▲	○	●	▲	□	■	●				8	▲
1.3 To aim at achieving socially safe environment (defensible space) through community participation	●	▲	○	●	▲	○	●					7	□-▲
1.4 Others													
												TOTAL	73%22/30 □-▲

Appendix A9.2 (Cont): Impact Evaluation of Policy Directions (Participants' Questionnaire - Exh. 7b)													
CASE STUDY 4: 241 Stuart St. & CN Yard-West Harbourfront Dev. Study (WHDS) - Hamilton													
Question: In your project, evaluate the impact of the following policy directions on the success of overall site reuse and redevelopment process. (Click one for each item &, if negative impact, indicate with minus sign)	Key Participants/Informants & Their Responses												
	■ V. Strong / 5 ● Strong / 4 ▲ Moderate / 3 □ Weak / 2 ○ V. Weak / 1 - NA / 0												
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	%	Resp	Ave.
5. Political-Organizational Component: Stakeholders' Consensus, Collaboration and Partnerships													
5.1 To develop a special redevelopment authority that is directly responsible for the reuse and redevelopment process. This may be in the form of a public authority, public-private, or public-private-community partnership. (P3) Private Also.	●	▲	■	NA		▲	●	□		■		7	▲-●
5.2 To establish network linkages among main stakeholders in order to foster consensus, collaboration and partnership throughout the different stages of the process													
● Public-public partnership	■	■	●	▲		▲		□		●		7	▲-●
● Public-private partnership	■	■	●	▲				□		●		6	▲-●
● Public-private-community partnership	■	■	▲	▲				▲		●		6	▲-●
5.3 Others. (P2: Community Support)		■										1	■
												TOTAL	66% 27/41 ▲-●
6. Project Implementation: Implementation Packages and Phasing Plans													
6.1 To address site remediation as the first implementation package and then site reuse and redevelopment as a second package	●		▲	NA				□		●		4	▲
6.2 To adopt a gradual site remediation and redevelopment strategy (especially for large sites) through site subdivision into prioritized sub-area implementation packages.	●	●	□	NA				▲		●		5	▲
6.3 Others.												TOTAL	45% 9/20 ▲
7. Key Policy Direction: Tax Increment Financing (TIF) or Tax Increment Equivalent Financing (TIEF) (Self-financing mechanism for site remediation). One major indicator/measure may be: "The impact of redevelopment on future property values and tax base of site and surrounding"													
7.1 To develop a self-financing mechanism (like TIF) to finance cost of site remediation within the Canadian context.	■							○		■		3	▲-●
7.2 Roughly estimate and relate the following: After redevelopment, future tax increments on the site (and surrounding properties) can capitalize initial site remediation cost within a period of:													
● Fifteen years	■									■		2	■
● Twenty years	■							□		■		3	●
● More than twenty years	■									■		2	■
7.3 Other appropriate financing mechanisms for site remediation												TOTAL	25% 10/40 ●
8. Overall Planning Process and a Clear Future Vision													
8.1 Having a clear vision and/or plan for the project	■	■	■	●				□	■	■		7	●-■
8.2 Commitment to planning especially in dealing with large	■	■	■	●				□		■		6	●
8.3 Adopting an integrative planning framework to link the major planning sub-processes including: site remediation, physical planning and design, project financing and marketing, social equity/security planning, and stakeholders' consensus & partnership	■		●	▲				□		■		5	▲-●
8.4 Others												TOTAL	60% 18/30 ●

Appendix A10.1: Main Linkages between the Environmental Planning Sub-process and Other Sub-processes – Four Empirical Case Studies

No.	Common Linkages	<u>Case Study-1</u> Gooderham & Worts Project Toronto	<u>Case Study-2</u> Port Centre Development Project Toronto Portland	<u>Case Study-3</u> Cooksville Quarry Project Mississauga	<u>Case Study-4</u> West Harbourfront Dev. Study (WHDS) & Bayfront Park Hamilton
1.	Site Contamination & Remediation versus Legal Liabilities <u>Environmental - Legal</u>	<ul style="list-style-type: none"> • Current & future liabilities. • Site remediation was based on EPA & Health Promotion & Promotion Act. • RSC* was registered on Title 	<ul style="list-style-type: none"> • Current & future liabilities. • Previous users (Imperial Oil & Sunoco) were legally liable for site contamination and paid for cost of site remediation. 	<ul style="list-style-type: none"> • Current & future liabilities. • Remediation was based on Section 46 (EPA) and MOE Guidelines 1989. • Four Party Indemnification • RSC was registered on Title 	<ul style="list-style-type: none"> • Current & future liabilities. • Site remediation for Bayfront Park was according to Section 46 of the EPA
2.	Site Contamination versus Cost of Site Remediation <u>Environmental - Economic</u>	<ul style="list-style-type: none"> • Site clean-up was costly. • SSRA to lower cost. • Clean-up within individual sites only. • Effect on property prices 	<ul style="list-style-type: none"> • Clean-up cost was paid for by previous users (polluters). • Contamination negatively affects property prices 	<ul style="list-style-type: none"> • SSRA to lower cost. • Clean-up cost was paid by the private developer. • Existing contamination affects property prices. 	<ul style="list-style-type: none"> • Remediation cost for Bayfront Park was financed by MOEE and the City. • Site remediation cost for WHDS was not addressed.
3.	Site Contamination /Remediation versus Future Land Use <u>Environmental – Physical/ Functional</u>	<ul style="list-style-type: none"> • Residential sites required more stringent clean-up than offices and public open space functions. 	<ul style="list-style-type: none"> • Project included commercial and industrial functions only which implied less stringent clean-up criteria and cost. 	<ul style="list-style-type: none"> • Flyash area was designated as public park in compliance with Section 46 of the EPA for land fill sites 	<ul style="list-style-type: none"> • Site remediation criteria were for public open space. • Site remediation for Bayfront Park was for land fill according to Section 46 of the EPA
4.	Site Contamination/ Remediation versus Surrounding Environment <u>Environmental - Environmental</u>	<ul style="list-style-type: none"> • Coal tar contamination was migratory and may have cross site effects. 	<ul style="list-style-type: none"> • Potential migration of contaminants implied an interactive effect between site and surrounding. 	<ul style="list-style-type: none"> • Effect of site contamination (flyash leachate) on ground water and Mary Fix Creek. • Long term monitoring req. 	<ul style="list-style-type: none"> • Site remediation was in the overall context of the Remedial Action Plan. • Trail was originally part of the larger CN rail area.
5.	Site Contamination versus Area Social Stigmatization <u>Environmental - Social</u>	<ul style="list-style-type: none"> • Project site had a negative social stigma prior to redevelopment. • Remediation and redevelopment 	<ul style="list-style-type: none"> • Project site had a negative social stigma prior to redevelopment. • The proposed project was not implemented. 	<ul style="list-style-type: none"> • Contaminated site itself was an eyesore. However impact on surrounding communities was not significant 	<ul style="list-style-type: none"> • Contaminated/abandoned industrial sites and waste land fill site (of Bayfront Park) had negative social stigma on surrounding resid. Community.
6.	Site Contamination & Remediation versus Stakeholders Interest <u>Environmental - Political</u>	<ul style="list-style-type: none"> • All main stakeholders/ politicians were in favor of site remediation/ redevelop. • However there was opposition to redevelopment impact on heritage issues. 	<ul style="list-style-type: none"> • All main stakeholders/ politicians were in favor of site remediation. • However there was opposition to the redevelopment project. 	<ul style="list-style-type: none"> • All main stakeholders/ politicians were in favor of site remediation. • However, there was minor opposition from community 	<ul style="list-style-type: none"> • Publicly initiated project. • Stakeholders’ consensus on site remediation. • Conflict was on the planning vision and its impact on the community & the city at large.
7.	Site Contamination & Remediation versus Environmental Approval process <u>Environmental - Political</u>	<ul style="list-style-type: none"> • Site remediation is a first step legal requirement. • Effect of delay time. • Site remediation plan was part of a dev. agreement. 	<ul style="list-style-type: none"> • Site remediation is a mile stone in the development approval process. It was carried on one site but the redevelopment project was not approved. 	<ul style="list-style-type: none"> • Site remediation is a first step legal requirement. • Effect of delay time. • Site remediation plan was part of a dev. agreement. 	<ul style="list-style-type: none"> • Addressing site remediation in Bayfront Park was key to success. While not addressing site remediation in the overall WHDS resulted in undefined cleanup cost

* Record of Site Conditions (RSC) was sometimes required by MOE/MOEE.

Appendix A10.2: Main Linkages between the Physical-Functional Planning Sub-process and Other Sub-processes – Four Empirical Case Studies					
No.	Common Linkages	<u>Case Study-1</u> Gooderham & Worts Project Toronto (Implemented)	<u>Case Study-2</u> Port Centre Development Project Toronto Portland (not Implemented)	<u>Case Study-3</u> Cooksville Quarry Project Mississauga (Implemented)	<u>Case Study-4</u> West Harbourfront Dev. Study (WHDS) & Bayfront Park Hamilton (Partially Implemented)
1.	Overall Site Master/Subdivision Plan Versus Smaller/Subdivided Site Plans (Macro-Micro Levels) <u>Physical – Physical</u>	<ul style="list-style-type: none"> Physical-functional planning was at various levels including the overall site resulting in a Master Dev. Concept Plan that outlined special identity areas, as well as the site specific planning/design level. Planning representation was at multi-level, hierarchical settings including land use planning, urban design and architecture, which were interrelated. 	<ul style="list-style-type: none"> Master plan for Port Centre Development already included subdivision into smaller sites and location of the project functions. Planning was multi-level including overall Port Industrial District, Project site, and within individual smaller sites. Process included land use planning & Urban Design. 	<ul style="list-style-type: none"> The project included a Development Plan of Subdivision for the entire site. Physical/functional planning was represented at multi-level hierarchical settings including land use planning, urban design, and architecture. All Planning levels were interrelated. 	<ul style="list-style-type: none"> West Harbourfront Precinct Concept Plan was in a way subdivided into smaller Districts. The analysis of the site area revealed several identifiable cultural landscape units. The Bayfront Park was part of the overall site area. Its successful implementation in advance gave impetus to the WHDS project.
2.	Heritage Conservation versus Urban Renewal & Redevelopment <u>Physical/Functional - Heritage - Economic</u>	<ul style="list-style-type: none"> G&W was designated National Historic Site Inter-effect of heritage conservation & bldg. density. Adaptive reuse of historical buildings next to new ones. Consensus on heritage conservation & disagreement on level of redevelopment Heritage conservation impact on cost of redevelopment (feasibility). 	<ul style="list-style-type: none"> The site did not include buildings of heritage value. However, the site is part of the overall port industrial district which also include the port of Toronto 	<ul style="list-style-type: none"> The project site did not include buildings of heritage value. However, the site had a history of brick factory use. 	<ul style="list-style-type: none"> The Heritage Study identified five cultural landscape units. <ul style="list-style-type: none"> North Entrance Area. Southern Residential Area. Industrial Area. Northern Residential Area. Harbour Shoreline Area. The cultural landscape units including historical/heritage buildings and sites formed an important basis for the Precinct Concept Plan.
3.	Building Form & Density versus Environmental Adaptation & Urban Redevelopment <u>Physical-Environmental-Physical</u>	<ul style="list-style-type: none"> Building form & density and environmental adaptation (solar and wind effects). Building density and economic feasibility. 	<ul style="list-style-type: none"> Building form and density was not a critical issue in the planning decision making process. 	<ul style="list-style-type: none"> High density residential was planned on the southern edge of the site. Medium density residential was located in the middle and single family housing was on the north side. 	<ul style="list-style-type: none"> The Concept Plan included a strong physical urban design vision for the area. It included a major transformation of the waterfront area. The Precinct Plan included high density development to be economically feasible. However, there was a 10 story limit on new development which was affected by height of Niagara Escarpment.

No.	Common Linkages	<u>Case Study-1</u> Gooderham & Worts Project Toronto	<u>Case Study-2</u> Port Centre Development Project Toronto Portland	<u>Case Study-3</u> Cooksville Quarry Project Mississauga	<u>Case Study-4</u> West Harbourfront Dev. Study (WHDS) & Bayfront Park Hamilton
4.	Land Use Diversity versus Daily Site Activity & Public Accessibility <u>Physical - Functional Activity</u>	<ul style="list-style-type: none"> Land use diversity & day cycle functioning/activity. Art & cultural functions encouraged public access. The project included residential functions which implied 24 hour activity within the site 	<ul style="list-style-type: none"> The functions included wholesale retail, industrial and sport functions which do not necessarily support a whole day cycle activity. 	<ul style="list-style-type: none"> The project was a mixed residential community with neighbourhood and office commercial. The residential functions implied 24 hour activity within the site. 	<ul style="list-style-type: none"> The overall project was mixed use development including residential community, commercial, recreational, office, cultural/ museum, transportation & other functions.
5.	Project Site Functions versus Surrounding Sites/Context <u>Physical/Functional- Context</u>	<ul style="list-style-type: none"> Compatibility/incompatibility of project functions with surrounding land uses. Impact of high-rise on surrounding communities. 	<ul style="list-style-type: none"> Project site was to be integrated with the surrounding which included the Port Area functions as well as the community to the north. Negative impact of project on inner city retail was a factor to stop the project. 	<ul style="list-style-type: none"> Integration of project site with the surrounding was a main objective. This included vehicular connections to E. community and pedestrian connections to the north community. Negative impact of high rise on residential community. Buffer zone between CPR rail line and residential area on the north side of the site. 	<ul style="list-style-type: none"> One main objective of the Precinct Concept plan was to integrate the new development with surrounding communities. Also, the plan was based on relocating the CN marshalling yard to allow for re-integration of the City resid. communities with the Hamilton Harbour. The new diagonal pedestrian axis was an attempt to link the inner city with the Harbourfront.
6.	Land Use Functions versus Transportation Access <u>Physical-Functional-Transportation</u>	<ul style="list-style-type: none"> Site was accessible from Gardiner Expressway & Lakeshore Boulevard. Street infrastructure already existing and connected to surrounding communities. Proposed transit for the area. 	<ul style="list-style-type: none"> The project site is located at the intersection of two major expressways, Gardiner Expressway & Don Valley Parkway. Site location provides proper accessibility & visibility from the Highway 	<ul style="list-style-type: none"> The existing transportation network around the site and new proposed network within the project were important in the subdivision design. 	<ul style="list-style-type: none"> The project site was relatively large and transportation network within the project was integrated with City transportation network.
7.	Land Use Mix versus Approval Process <u>Physical/Functional-Political</u>	<ul style="list-style-type: none"> Proposed mixed land uses implied Official Plan Amendment & rezoning 	<ul style="list-style-type: none"> Even though the project was not implemented, the proposed wholesale retail functions would require Official Plan Amendment and rezoning 	<ul style="list-style-type: none"> Proposed mixed land uses implied Official Plan Amendment & rezoning 	<ul style="list-style-type: none"> Even though the project was not fully implemented, the proposed land use functions would require Official Plan Amendment and rezoning.
8.	Distribution and size of Land Use Functions within the Site versus Market Analysis & Economic Feasibility <u>Physical/Functional-Economic</u>	<ul style="list-style-type: none"> The location of existing building to be reused and the remaining open land to be developed was the factor in deciding location of residential and office functions. 	<ul style="list-style-type: none"> Size of whole sale commercial was based on Market analysis. Location of Costco wholesale was along the axis of Don Valley Parkway that is directly visible from a major highway 	<ul style="list-style-type: none"> Size & location of commercial center was based on market analysis. Location of commercial center at main street intersection was due to visibility & accessibility 	<ul style="list-style-type: none"> Size/density of development was affected by economic feasibility and market analysis. The project included feasibility study for relocation of CN Marshalling yard.

Appendix A10.3: Main Linkages between the Economic Planning Sub-process and Other Sub-processes – Four Empirical Case Studies					
No.	Common Linkages	<u>Case Study-1</u> Gooderham & Worts Project Toronto (Implemented)	<u>Case Study-2</u> Port Centre Development Project Toronto Portland (not Implemented)	<u>Case Study-3</u> Cooksville Quarry Project Mississauga (Implemented)	<u>Case Study-4</u> West Harbourfront Dev. Study (WHDS) & Bayfront Park Hamilton (Partially Implemented)
1.	Cost of Site Remediation versus Level of Site Contamination & Decontamination <u>Economic – Environmental</u>	<ul style="list-style-type: none"> • Site remediation was costly. • SSRA approach to reduce cost of site remediation. • Part of contamination remained within site and record of site condition was registered on title. 	<ul style="list-style-type: none"> • SSRA approach to reduce cost of site remediation for two subdivided sites. • The cost of site remediation was more than the value of land in one of the subdivisions. 	<ul style="list-style-type: none"> • SSRA approach to reduce cost of site remediation for two subdivided sites. • The flyash area was capped with a deep layer of soil and continuous future monitoring was required. 	<ul style="list-style-type: none"> • Cost of site remediation was not properly addressed and defined for the entire WHDS area. • However, cost of site remediation for Bayfront Park & Harbourfront Trail was managed by the City with a grant from MOEE.
2.	Cost of Site Remediation versus Legal Liabilities for Decontamination <u>Economic-Legal/Environmental</u>	<ul style="list-style-type: none"> • Legal liability for contamination & decontamination Implied cost. • Legal liability for decontamination cost affected property prices. • After site remediation, the record of site condition was registered on title. 	<ul style="list-style-type: none"> • Cost of site remediation for two subdivisions was paid for by previous users who were responsible for contamination. 	<ul style="list-style-type: none"> • The new developer/owner was liable for site remediation. • However, Ontario Hydro was responsible for the flyash area. • There was a four party agreement where the City & Province were indemnified from future liabilities of contamination. 	<ul style="list-style-type: none"> • The rail corridor including the CN Marshalling yard, in addition to the surrounding industrial sites were contaminated. • For relocating CN marshalling yard, the City would have to buy the land from CN as is which implies assuming liability.
3.	Cost of Site Remediation versus Future Land Use <u>Economic-Environmental-Physical</u>	<ul style="list-style-type: none"> • Clean-up criteria for residential is more stringent than those for commercial and industrial uses. • Type of future land use affected level of decontamination which in turn affected site remediation cost. 	<ul style="list-style-type: none"> • Proposed mixed land use included commercial and industrial which had less stringent criteria for site decontamination. 	<ul style="list-style-type: none"> • Site remediation criteria for residential areas are more stringent than commercial & industrial areas & hence more costly. • Site remediation for flyash area was based on S. 46/EPA as landfill site which implied a use as a public open space. 	<ul style="list-style-type: none"> • Cost of site remediation was affected by the nature of contamination and potential SSRA. Level of cleanup depended on the nature of land use functions.
4.	Project Economic Feasibility versus Heritage Conservation and Building Density <u>Economic - Heritage/Physical</u>	<ul style="list-style-type: none"> • Heritage conservation was costly & affected financial feasibility. • To achieve acceptable level of heritage conservation, added building area was given to the developer as a bonus to balance cost of heritage conservation (Sect. 37, Ontario Heritage Act). • Tit-for-Tat approach for stakeholders' agreement 	<ul style="list-style-type: none"> • The site did not include heritage buildings. However it is part of a waterfront area that has natural heritage. 	<ul style="list-style-type: none"> • The site did not include heritage buildings. However, the original brick factory had a long functional history in the area. 	<ul style="list-style-type: none"> • Both natural and architectural heritage conservation were objectives for the WHDS. • The plan attempted to achieve a balance between building density/height and the natural heritage by not exceeding the height of Niagara Escarpment (10-11 stories).

Appendix A10.3 (Cont.): Main Linkages between the Economic Planning Sub-process and Other Sub-processes – Four Empirical Case Studies					
5.	Cost of Site Remediation versus Stakeholders Decisions and Project Feasibility <u>Economic - Political</u>	<ul style="list-style-type: none"> • Stakeholder’s consensus on site remediation in general. • Who pays the cost? • Acceptable level of site remediation to reduce cost and achieve stakeholders’ agreement. 	<ul style="list-style-type: none"> • Cost of site remediation was paid for by the previous users who were responsible for decontamination. 	<ul style="list-style-type: none"> • Stakeholders’ conflicting opinion and concern about capping the flyash area which would be the future public park. 	<ul style="list-style-type: none"> • Stakeholders’ conflict was not primarily due to cost of site remediation.
6.	Project Marketability versus Perception of Site Contamination <u>Economic - Environmental</u>	<ul style="list-style-type: none"> • Negative perception of existing site contamination. • Record of site condition with remaining contamination registered on title. • Perception of contamination had negative impact on project marketing. • There was demand for affordable housing in the project being within the inner city and adjacent to Saint Lawrence neighbourhood. 	<ul style="list-style-type: none"> • Site contamination did not affect project marketability. • Site location and accessibility to major transportation routes were the main factors that affected project marketability. 	<ul style="list-style-type: none"> • The developer and builders were keen about completing the site remediation process before marketing the new functions to potential purchasers to reduce the perceptual impact of contamination. • After site remediation, the record of site condition was registered on title. 	<ul style="list-style-type: none"> • Perception of site contamination and related liabilities had negative effect on marketability. However, this was not the main factor that stopped the project
7.	Project Marketability versus Stakeholders’ Acceptability of the Functional Theme <u>Economic – Functional - Political</u>	<ul style="list-style-type: none"> • The functional theme focused on residential-office-cultural mixed use in the context of heritage conservation. • In general the functional theme was acceptable to the main stakeholders with only conflict with heritage groups on the level of heritage conservation. 	<ul style="list-style-type: none"> • The functional theme was primarily based on economic criteria which was acceptable to the developer and the investors. • However, the functional theme was not acceptable to primary stakeholders like the City of Toronto and local retail business community. 	<ul style="list-style-type: none"> • In general, the mixed functional theme was acceptable which included a residential community with commercial centre, offices and open space recreation. • Conflict was more on the form/height of buildings overlooking neighbouring residential areas. 	<ul style="list-style-type: none"> • The mixed functional theme was generally acceptable. However, the physical concept plan was perceived by many stakeholders like a “blue print” that is not flexible to change. Also the physical concept plan implied major transformation of existing City fabric and heritage which was not acceptable to major stakeholders.

Appendix A10.4: Main Linkages between the Social Planning Sub-process and Other Sub-processes – Four Empirical Case Studies					
No.	Common Linkages	Case Study-1 Goederham & Worts Project Toronto (Implemented)	Case Study-2 Port Centre Development Project Toronto Portland (not Implemented)	Case Study-3 Cooksville Quarry Project Mississauga (Implemented)	Case Study-4 West Harbourfront Dev. Study (WHDS) & Bayfront Park Hamilton (Partially Implemented)
1.	City/Community & Developer Objectives versus Perception of a Contaminated Site <u>Social-Political-Economic-Environmental</u>	<ul style="list-style-type: none"> • Positive and negative links. • City and community interests in transforming the contaminated site into a healthy & vibrant complex. • The perception of future environmental risks from remaining site contamination even though monitored. • Record of site condition would be registered on property title. 	<ul style="list-style-type: none"> • Consensus on site clean-up and transformation of the blighted/contaminated sites. • The cost of site remediation for some parcels was paid by previous user which was favorable to the developer. • The concern was not about site remediation but on the proposed functional theme. 	<ul style="list-style-type: none"> • Consensus on site remediation and transforming the blighted factory and quarry site. • Conflict of opinion on the potential risks of capping the flyash area at the Quarry that would be the community park. • Record of site condition would be registered on property title. 	<ul style="list-style-type: none"> • Consensus on site remediation in general. Social stigmatization of the site area was a strong factor as perceived by Key Participants. • However, cost of site remediation for the entire WHDS site, have to be estimated and financing methods arranged. This is mainly for the CN rail corridor, marshalling yard and surrounding industrial areas. • Continuous environmental monitoring was required.
2.	City & Heritage Community Objectives versus Perception of Heritage Conservation <u>Social-Political-Economic-Physical</u>	<ul style="list-style-type: none"> • The redevelopment plan included a master heritage plan. • There was consensus on heritage conservation and the differences were on level and the added development area bonus. • Added building area/density as a bonus was needed to balance cost of heritage conservation and achieve financial feasibility 	<ul style="list-style-type: none"> • The project site did not include heritage buildings. However, the site was part of the Port Area that was a waterfront area. 	<ul style="list-style-type: none"> • The project site did not include heritage buildings. 	<ul style="list-style-type: none"> • Conservation of cultural heritage was a major objective of the WHDS. • Conservation included built and natural heritage. • Five cultural landscape units were identified. • Even though heritage conservation was a sought objective, the proposed plan called for major transformation of city fabric and character.
3.	High Rise Buildings versus Visual Social Privacy and Other Impacts <u>Social - Functional - Political</u>	<ul style="list-style-type: none"> • There was concern from high rise buildings impacting the heritage character. • Stakeholders' conflicting opinion was finally resolved. 	<ul style="list-style-type: none"> • The project did not include high rise buildings. 	<ul style="list-style-type: none"> • There was concern and conflict about the originally proposed high rise buildings on the south side that were over looking neighbouring communities. 	<ul style="list-style-type: none"> • High rise buildings would have an impact on natural heritage of Niagara Escarpment. Accordingly, building height was limited to 10 floors.

Appendix A10.4 (Cont.): Main Linkages between the Social Planning Sub-process and Other Sub-processes – Four Empirical Case Studies					
4.	Open Space/Environmental Context versus Social Context <u>Social-Physical-Environmental</u>	<ul style="list-style-type: none"> • The project site will be accessible to the public. • 50% of ground plan will be comprised of lanes, courtyards, and parkettes. • Open space system to enhance heritage character and buildings. • A comprehensive landscape plan was prepared for the project. 	<ul style="list-style-type: none"> • The open space and pedestrian trail system was a connective network link between project site and the waterfront as well as the Don Valley open space and pedestrian trail system. • The connective open space system had potential for positive social environment for pedestrian and cyclists. However, the project functional theme was car oriented Big Box development. 	<ul style="list-style-type: none"> • The primary open space system included the community park and recreational area, storm management area, and the buffer open space that separated the residential area on the north side of the project from CPR corridor and from the city owned site on the northwest corner. • The open space system was extensive and included several components including: <ul style="list-style-type: none"> - Bayfront Park. - Harbourfront Train. - Recreational area along the waterfront. - Pedestrian open space that connected the inner city with the waterfront. - Amphitheatre. • The open space system represented a rich social context even though it was transforming city image and character. 	
5.	Social Context within the Project Site versus Surrounding Communities <u>Social - Physical/Functional</u>	<ul style="list-style-type: none"> • The project was a mixed use with 40% residential, 41% offices, and remaining retail, light industrial & cultural/art/heritage functions. The project would be near to some existing residential communities. • Saint Lawrence residential neighbourhood was to the west. • The Ataratiri land was to the east, which was also a contaminated site that was not redeveloped yet. • Cork Town was to the north. • Gardiner expressway and Port Industrial District was to the south 	<ul style="list-style-type: none"> • The project was a commercial-industrial-sports mixed redevelopment and the surrounding was predominantly industrial. • However, the overall Port area is also transforming into a recreational area being at the waterfront, as well as having office functions & introducing residential uses as well. 	<ul style="list-style-type: none"> • The project was a mixed use residential community with a commercial/office centre, a public park recreational area and an elementary school. • The project was surrounded by residential communities on the east and south sides, in addition to a residential community on the north side across the CPR rail corridor. • The proposed residential community was integrated to the surrounding communities 	<ul style="list-style-type: none"> • The WHDS project was a combination of mixed use functions including public park and recreation, commercial and office functions, residential functions, in addition to cultural functions. • The objective of the proposed plan was to integrate the new community with the surrounding communities.
6.	Social Objectives as a Requirement for the Redevelopment Approval Process <u>Social – Political</u>	<ul style="list-style-type: none"> • Achieving social objectives were City/Municipal requirements as part of the redevelopment approval process. This included: <ul style="list-style-type: none"> - Social/affordable housing. - Heritage Conservation. - Public benefit use functions. • Heritage agreement was based on Section 37 of the Heritage Act. 	<ul style="list-style-type: none"> • There were no social objectives required for redevelopment approval. The project plan provided open space pedestrian system linked to existing open space system which were connected to the waterfront. • The project would generate jobs and increase tax base. 	<ul style="list-style-type: none"> • Achieving social objectives were City/Municipal requirements as part of the redevelopment approval process. This included: <ul style="list-style-type: none"> - Social/affordable housing. - Public park and recreational facilities. - Elementary School. 	<ul style="list-style-type: none"> • The project was City driven and the project included numerous social objectives including: <ul style="list-style-type: none"> - Public parks and recreational areas including Bayfront Park. - Buildings for the public interest like multicultural gardens. - Heritage conservation of buildings and sites

Appendix A10.5: Common Forms of Stakeholders' Collaboration and Partnership - Political Planning Sub-process - Four Empirical Case Studies					
No.	Item	Case Study-1 Gooderham & Worts Project Toronto	Case Study-2 Port Centre Development Project Toronto Portland	Case Study-3 Cooksville Quarry Project Mississauga	Case Study-4 West Harbourfront Dev. Study (WHDS) - Hamilton
	Stakeholder Responsible for Project Redevelopm. Status of Project	<u>Private Developer/Owner</u> Implemented Project	<u>TEDCO</u> Not Implemented Project	<u>Private Developer Owner</u> Implemented Project	<u>City of Hamilton</u> WHDS Project was not Implemented Except Bayfront Park & H. Trail
	Stakeholder's Collaboration, Partnerships & Agreements				
	Public - Public	<ul style="list-style-type: none"> The City was collaborating with related public entities like MOE, Ministry of Culture Tourism & Recreation, Heritage Toronto, Park Canada, Regional Conservation Authority & others 	<ul style="list-style-type: none"> Even though the Developer/ TEDCO was owned by the City, there was lack of collaboration between them in conducting the project which led to conflict and failure of the project. 	<ul style="list-style-type: none"> Indemnification agreement in which the City indemnified MOE from liability of existing contamination 	<ul style="list-style-type: none"> For the original Bayfront Park project, there was an agreement between MOE and the City in which the first provided a grant of 5 million dollars and the City would implement a site remediation plan.
	Public - Private	<ul style="list-style-type: none"> Master Development Agreement between the City and the Owner/Developer which also included the following: <ul style="list-style-type: none"> - Heritage Easement Agreement - Social Housing Agreement. - Day Care Agreement. - Provision of other services 	<ul style="list-style-type: none"> Site remediation agreement between TEDCO & previous user Sunoco who was responsible for site remediation. Site sale-compensation-indemnification agreement between TEDCO & previous user/owner. TEDCO agreements with potential new investors like Costco and Knob Hill Farms. 	<ul style="list-style-type: none"> Development Agreement between Developer & City of Mississauga. Indemnification agreement in which the Developer indemnified the Province/MOEE which represented the Crown. Four party indemnification agreement in which Ontario Hydro indemnified the Developer and the City and MOEE; the Developer indemnified the City and MOE. 	<ul style="list-style-type: none"> Site remediation agreement between the City and the private contractors for Bayfront Park and Harbourfront Trail. Real estate transaction/purchase agreement between the City and CNR regarding the land for Harbourfront Trail.
	Private - Private	<ul style="list-style-type: none"> Partnership between primary developer Walter Davies and Secondary developer Options for Homes for Social Housing. 	<ul style="list-style-type: none"> NA 	<ul style="list-style-type: none"> Partnership/agreement between Developer and Builders of individual sites. 	<ul style="list-style-type: none"> NA
	Public - Private – Community Collaboration	<ul style="list-style-type: none"> There was public-private-community collaboration in the form of public meetings. 	<ul style="list-style-type: none"> The surrounding community residents and local business retail and other groups were involved in the process through public meetings and open houses arranged by TEDCO. 	<ul style="list-style-type: none"> Community collaboration was at public meetings organized by the City, Ratepayers Association, and the Developer. 	<ul style="list-style-type: none"> Stakeholders' team organization was a good example of Public-Private-Community collaboration. Community residents and local business groups were represented at the WHDS Steering Committee. Vision game, workshops and public meetings were conducted collectively including the public & private sectors, in addition to local community and City residents.

Appendix A10.6: Common Patterns for Stakeholders Responsibility versus Project Implementation Phasing Packages - Four Empirical Case Studies

No.	Item	Case Study-1 Gooderham & Worts Project Toronto	Case Study-2 Port Centre Development Project Toronto Portland	Case Study-3 Cooksville Quarry Project Mississauga	Case Study-4 West Harbourfront Dev. Study (WHDS) - Hamilton
	<p><u>Phase/Package - A:</u></p> <p>1. <u>Site Ownership & Acquisition</u></p>	<ul style="list-style-type: none"> • Site was privately owned by Wyndham Court. • Primary Developer was first managing development and then partial owner. 	<ul style="list-style-type: none"> • Most of the properties within project site were publicly owned by TEDCO. Originally those areas were owned by the Port Authority. • Three properties were privately owned. • Previous owner of one property (Imperial Oil) sold the site to TECDO with compensation for site remediation. 	<ul style="list-style-type: none"> • Originally, the brick factory site was privately owned by Domtar. • The site was sold to another private entity Jannock Brick Group which was then called Jannock Properties. 	<p><u>Bayfront Park</u></p> <ul style="list-style-type: none"> • Originally, project site was privately owned by Lax Property. • City of Hamilton acquired the site through expropriation. <p><u>Harbourfront Trail</u></p> <ul style="list-style-type: none"> • The site area was part of the rail corridor which was owned by CNR, previously a federal agency that was privatized during the project. • The City of Hamilton purchased the site and was responsible for site remediation.
	2. <u>Site Remediation & Restoration</u>	<ul style="list-style-type: none"> • Private Developer/Owner was responsible for site remediation. 	<ul style="list-style-type: none"> • In general TEDCO was responsible for site remediation. • Site remediation on one property within project site was performed by previous user/polluter (Sunoco). 	<ul style="list-style-type: none"> • Private Developer was responsible for site remediation. • Ontario Hydro, being the polluter of the flyash area, provided indemnification for the developer, the City and the Province. 	<ul style="list-style-type: none"> • The City was responsible for site remediation of Bayfront Park and for Harbourfront Trail area. • Site remediation for the entire WHDS was not perform or planned for.
	<p><u>Phase/Package - B:</u></p> <p>3. <u>Redevelopment Marketing & Partnership</u></p>	<ul style="list-style-type: none"> • The primary developer arranged an agreement with another developer to implement the social housing part of the project. • Marketing was performed by each developer for their pertinent parts. 	<ul style="list-style-type: none"> • TEDCO arranged for marketing designated project site areas to business investors including Costco/Price Club, Knob Hill Farms and others. • Preliminary agreements were arranged between TEDCO and business investors. 	<ul style="list-style-type: none"> • Developer and builders performed marketing after all site remediation was completed. • Marketing for the proposed functions was not difficult since the site was in proximity to the city centre, to public transit and expressway. 	<ul style="list-style-type: none"> • The City was responsible for redevelopment of the landfill site into Bayfront Park and MOE/MOEE helped in a financial grant. • The City was also responsible for redeveloping the Harbourfront Trail as public open space/trail along the waterfront.
	4. <u>Site Reuse, Redevelopment & Tenant Occupancy</u>	<ul style="list-style-type: none"> • Site redevelopment was performed by each developer for their pertinent part. 	<ul style="list-style-type: none"> • The project was not implemented due to conflict of vision and objectives among main stakeholders for the future of the project in the context of the port industrial district. 	<ul style="list-style-type: none"> • Private Developer, builders and investors were responsible for the actual site development 	<ul style="list-style-type: none"> • Regarding WHDS project, the City embarked marketing campaign at local and global levels in order to attract potential developers for the project. However, the project did not go through.

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