Department of Environmental Conservation

Division of Environmental Remediation

RECORD OF DECISION

Midtown Plaza Site

Environmental Restoration

Syracuse (C), Onondaga County

Site Number B-0003-7

March 1998

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* JOHN P. CAHILL, *Commissioner*

DECLARATION STATEMENT
ENVIRONMENTAL RESTORATION RECORD OF DECISION

Midtown Plaza Environmental Restoration Site
Syracuse, Onondaga County
Site No. B-0003-7

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedial action for the Midtown Plaza environmental restoration site which was chosen in accordance with the New York State Environmental Conservation Law (ECL).

This decision is based upon the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Midtown Plaza Environmental Restoration Site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A bibliography of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous substances from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential threat to public health and the environment.

Description of Selected Remedy

Based upon the results of the Site Investigation/Remedial Alternatives Report (SI/RAR) for the Midtown Plaza and the criteria identified for evaluation of alternatives the NYSDEC has selected Building Demolition and Source Removal with Off-Site Disposal. The components of the remedy are as follows:

- A remedial design program to verify the components of the conceptual design and provide the details necessary for the demolition, delineation of source materials, and construction of the remedial program. Any uncertainties identified during the SI/RAR would be resolved.

- Removal of the contaminated materials in identified sumps, catch basins, and collection trenches.

  Remediation of the transformer vault including removal and proper disposal of the transformers, PCB oil and the contaminated water within.

- An asbestos abatement program addressing all friable asbestos within the building in anticipation of building demolition.

- Building demolition. The building will be razed using standard demolition techniques.

- A post-demolition delineation/investigation, identifying the extent of contamination beneath the former slab. Source areas including contaminant "hot spots", dry wells or other subsurface features contributing to the contamination will be identified and delineated.

- Contaminated soils beneath the building will be excavated, as necessary, for off-site disposal.

- The site will be backfilled using demolition debris to the extent feasible, graded and restored.

- A post-remedial groundwater monitoring program will be initiated to confirm the effectiveness of the remedy.

New York State Department of Health Acceptance

The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. The remedy will allow use of the site for commercial purposes.

3/4/98
Date

Michael J. O'Toole, Jr., Director
Division of Environmental Remediation

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SECTION 1: SITE LOCATION AND DESCRIPTION

The Midtown Plaza site is located at 700 East Water Street, in the City of Syracuse, Onondaga County, New York. The site location is shown on Figure 1. A site plan of Midtown Plaza is shown on Figure 2.

The site is approximately 2.4 acres located in an urban section of the City zoned as "C-A, Retail/Office/Commercial" by the City/County Planning Agency. The site is bordered to the north by East Water Street, to the east by a parking lot, to the south by East Washington Street and to the west by Almond Street. The site includes an eight story, 425,000 square foot building, constructed primarily of reinforced concrete with block/brick walls. A grass courtyard area with a semi-circular driveway and two loading dock areas are located on the north side of the building.

SECTION 2: SITE HISTORY

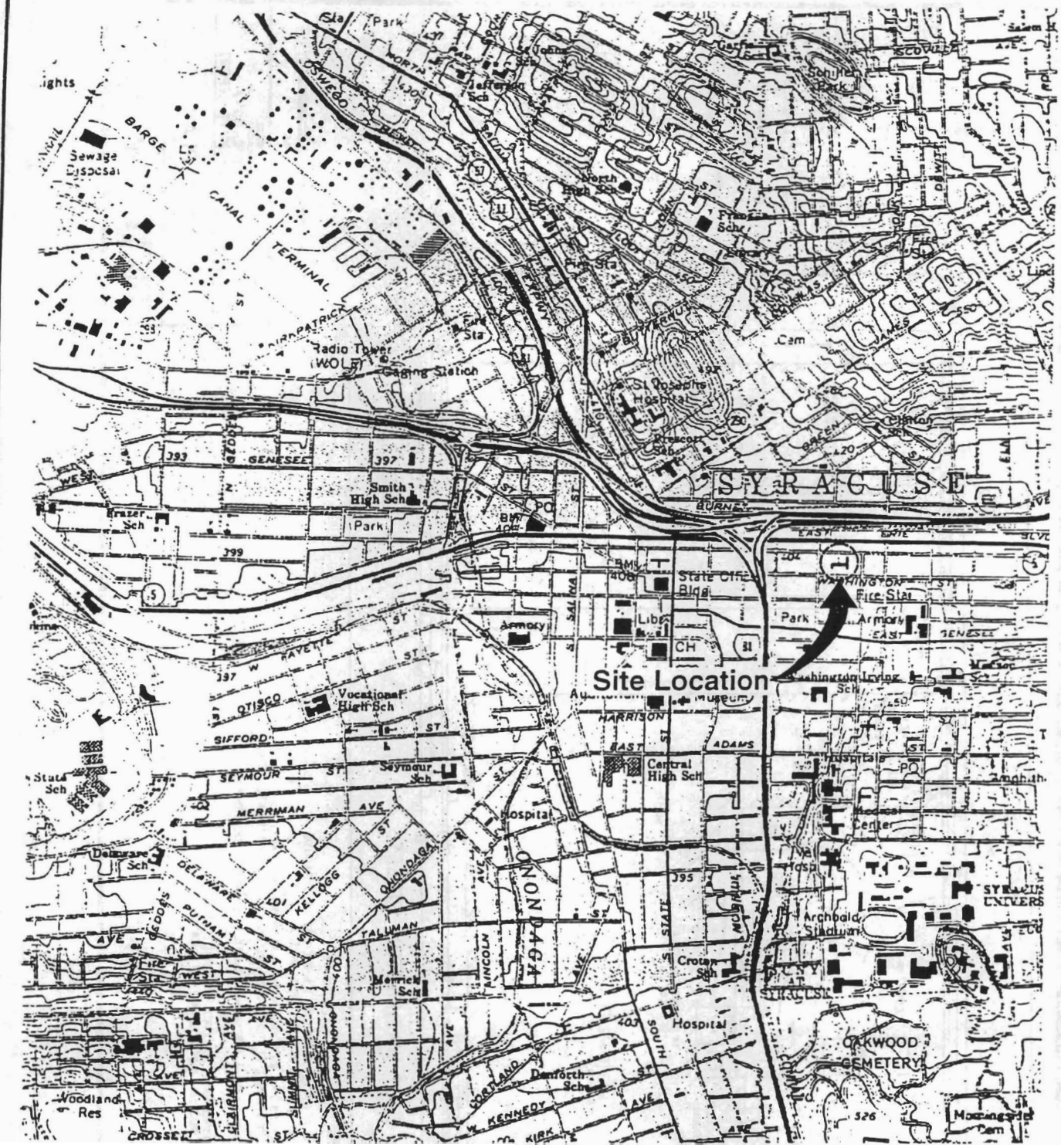
2.1: Operational/Disposal History

Historical information including the 1882-90 Sanborn Map, the 1892 Vose Map and the 1908 Hopkins Atlas of Syracuse, indicate that the site was occupied by residential homes and a small lumber yard until the turn of the century. The site was formerly the location of the Schuyler R. Smith mansion which was razed just prior to 1903, when the site was selected for construction of the Smith-Corona typewriter factory. The 1908 Hopkins Map shows the original wing of the factory along East Washington Street. The 1910-1941 Sanborn Map shows that the second wing of the factory was constructed along Almond Street and completed in 1913. The final major addition which included construction of a third wing extending from East Washington Street to East Water Street, was completed in 1948. Collectively this construction comprises the current Midtown Plaza structure.

Smith-Corona ceased manufacturing operations in Syracuse in 1960 and the abandoned plant was redeveloped and served as office space from 1965 to 1981. Tenants during this era included Onondaga Community College. The building has been vacant since 1981. The building has suffered severe neglect and vandalism in the years since.

2.2: Environmental Restoration History

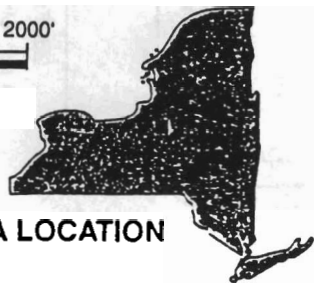
Prior environmental investigations at the site are limited to a non-intrusive Phase I Assessment. Beyond the data developed as part of the recently-completed Site Investigation, no environmental analytical data is available for the site and no reports of environmental-based remediation have been identified.



REFERENCE: BASE MAP USGS QUAD., SYRACUSE, WEST, NY, 1973, PHOTOREVISED 1978.

2000' 0 2000'

Approximate Scale: 1" = 2000'



AREA LOCATION

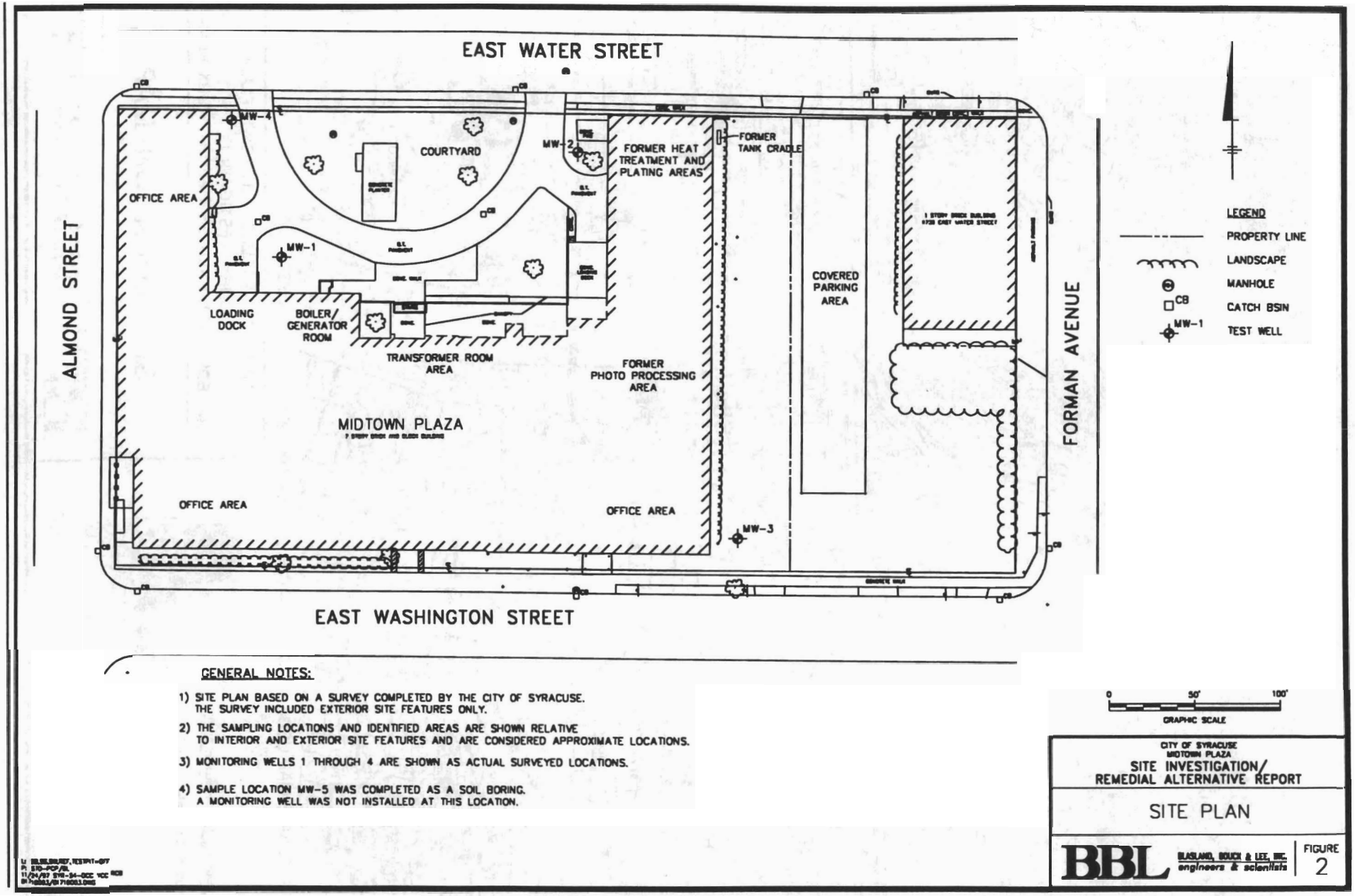
08/97 SYR-054-DJH
01710001/01710n01.cdr

CITY OF SYRACUSE - MIDTOWN PLAZA
SITE INVESTIGATION/
REMEDIAL ALTERNATIVES REPORT WORK PLAN

SITE LOCATION MAP

BBL BLASLAND, BOUCK & LEE, INC. *engineers & scientists*

FIGURE 1



GENERAL NOTES:

1) SITE PLAN BASED ON A SURVEY COMPLETED BY THE CITY OF SYRACUSE. THE SURVEY INCLUDED EXTERIOR SITE FEATURES ONLY.

2) THE SAMPLING LOCATIONS AND IDENTIFIED AREAS ARE SHOWN RELATIVE TO INTERIOR AND EXTERIOR SITE FEATURES AND ARE CONSIDERED APPROXIMATE LOCATIONS.

3) MONITORING WELLS 1 THROUGH 4 ARE SHOWN AS ACTUAL SURVEYED LOCATIONS.

4) SAMPLE LOCATION MW-5 WAS COMPLETED AS A SOIL BORING. A MONITORING WELL WAS NOT INSTALLED AT THIS LOCATION.

CITY OF SYRACUSE
MIDTOWN PLAZA
SITE INVESTIGATION/
REMEDIAL ALTERNATIVE REPORT

SITE PLAN

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 2

SECTION 3: CURRENT STATUS

To determine the nature and extent of any contamination by hazardous substances of this environmental restoration site, the City of Syracuse has recently completed a Site Investigation/Remedial Alternatives Report (SI/RAR).

3.1: Summary of the Site Investigation

The purpose of the SI was to define the nature and extent of any contamination resulting from previous activities at the site.

The SI was conducted between August and October of 1997. A report entitled *Midtown Plaza Site Investigation Report*, January 1998, has been prepared describing the field activities and findings of the SI in detail.

The SI included the following activities:

- A Site Reconnaissance to assess the location of relevant drainage features and potential contaminant source areas within and beneath the building. The basement extends beneath the entire building. This area was the focus of many of the sampling activities.

  Installation of soil borings and monitoring wells for analysis of soils and groundwater as well as an assessment of site hydrogeologic conditions.

- Excavation of test pits to locate potential underground tanks, piping and/or leachfields.

- Sampling of sediment from interior catch basins, sumps and trenches.

  Sampling of standing water from within a flooded subsurface transformer vault and other subsurface structures.

- Sampling of suspected asbestos- containing materials.

To determine which media (soil, groundwater, etc.) contain contamination at levels of concern, the SI analytical data was compared to environmental Standards, Criteria, and Guidance (SCGs). Groundwater, drinking water and surface water SCGs identified for the Midtown Plaza site were based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of NYS Sanitary Code. NYSDEC TAGM 4046 soil cleanup guidelines for the protection of groundwater, background conditions and risk-based remediation criteria are all used as SCGs for soil.

Based upon the results of the site investigation in comparison to the SCGs and potential public health and environmental exposure routes, certain areas and media of the site require remediation. These are summarized below. More complete information can be found in the SI Report.

Chemical concentrations are reported in parts per billion (ppb) and parts per million (ppm) for water and soil, respectively. For comparison purposes, SCGs are given for each medium.

3.1.1 Nature of Contamination:

As described in the SI Report, soil, groundwater and sediment samples were collected at the Site to characterize the nature and extent of contamination.

A variety of volatile, semi-volatile, pesticide and inorganic compounds were observed in the various media sampled. Also, PCBs were detected in the transformer vault. The contaminants detected, which generally correspond with the site's past industrial use, are discussed below.

3.1.2 Extent of Contamination

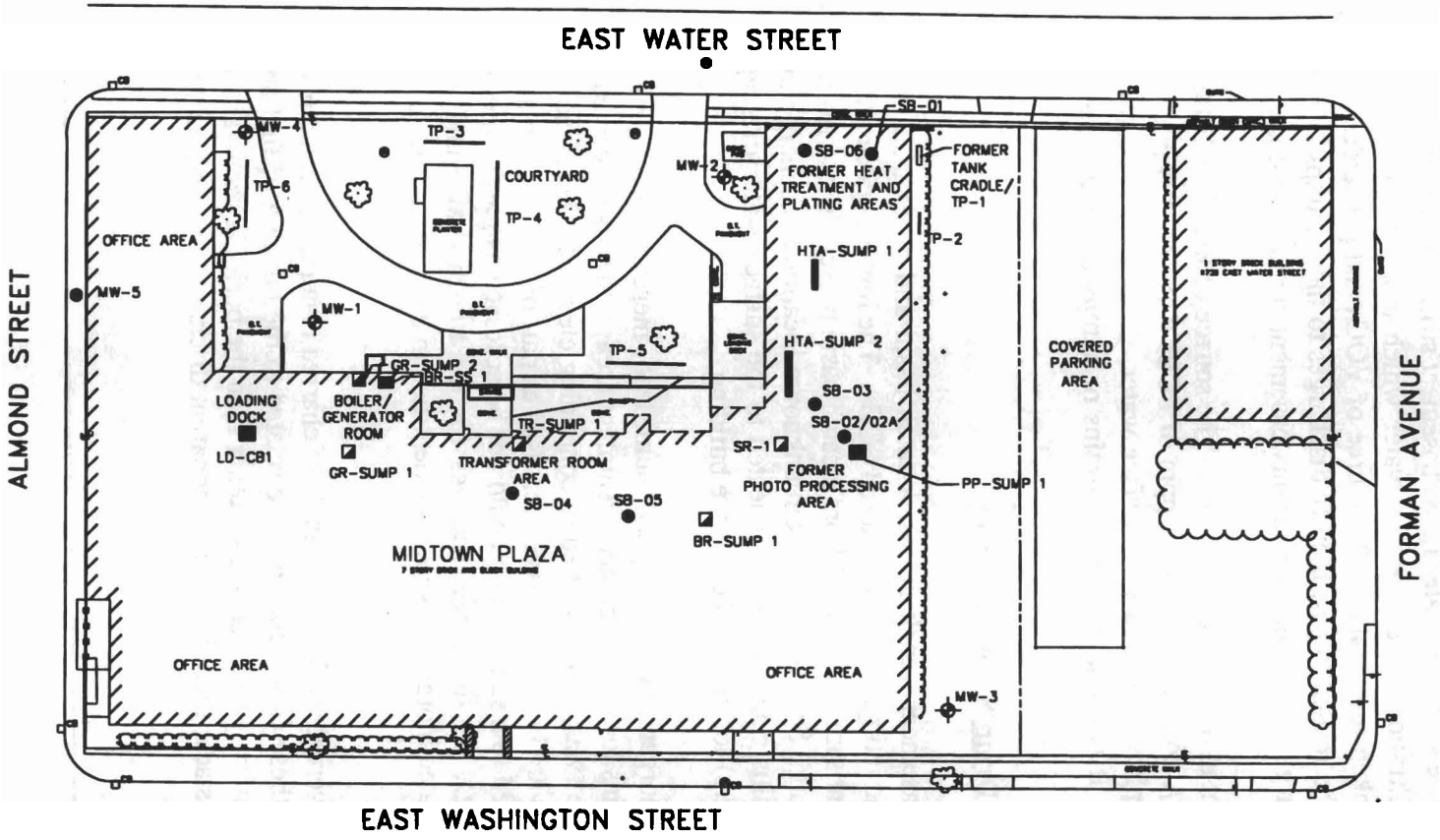
Table 1 summarizes the extent of contamination for the contaminants of concern at this Site and compares the data with the proposed remedial action levels (SCGs) for the Site. The following are the media which were investigated and a summary of the findings of the investigation. The presentation below distinguishes between the samples collected from the interior of the building and those collected from the building exterior.

Interior Investigation

The Interior Investigation focused on various "suspect" areas within the basement area of the building. Areas were selected based on their apparent relationship to past manufacturing, process or building operation activities. Sampling activities were conducted in the following areas of the building: the Heat Treatment Area, the Photo Processing Area, the Boiler Room, the Transformer Room, and the Generator Room. These areas are identified on Figure 3.

Subsurface Soil

Subsurface soil samples collected from beneath the basement floor slab contain concentrations of SVOCs and inorganics which exceed the NYSDEC SCGs. The most notable exceedences are related to the presence of chromium and zinc which have been identified at concentrations which are up to two orders of magnitude above the respective SCGs. The source of inorganics to the subsurface is not known, but may be related to the presence of numerous sumps, trench drains and floor drains within the basement. Due to the lack of facility drawings, the discharge point for these various drainage features and the presence of other subsurface features (e.g., dry wells, sumps, etc.) is not known.



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0 50' 100'
GRAPHIC SCALE

CITY OF SYRACUSE
MIDTOWN PLAZA
SITE INVESTIGATION/ REMEDIAL ALTERNATIVE REPORT

SAMPLING LOCATION PLAN

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 3

Sump Water

Water samples collected from a number of basement sumps contain VOCs and pesticides which exceed their associated surface water quality standards and guidance values. In addition elevated levels (up to 13,404 ppb) of un-identified SVOCs (i.e., tentatively identified compounds) have been identified in the sump water. The source of water in the basement sumps is not known, but may be related to groundwater infiltration or surface/rain water which is known to enter the building through failed roofs and broken roof drains. The source of VOCs and pesticides in the surface water is not known but may be related to past facility discharges to these sumps. Due to the lack of facility drawings, discharges to or from the various basement sumps is not known.

PCB-containing oil was found present in the transformer room. The source of the oil is believed to be the abandoned transformers. A concentration of 42 ppm of PCBs was detected in the oil sample, though because the oil sample was diluted with surface water, the actual concentration of PCBs in the oil may be higher. It is not known if any drains or sumps are present in the transformer room.

Drain/Sump Sediment

Sediment samples collected from basement trench drains, a catch basin and an exhaust stack contained levels of VOCs, SVOCs and inorganics which exceed SCGs. The highest concentration of SVOCs was identified in a sediment sample collected from a catch basin present in the loading dock near the west wing of the building. Several inlets, from unknown locations, discharge into this catch basin; it is believed that this catch basin is connected to the surface water drainage system (catch basins and storm sewers) located outside of the building.

The highest concentrations of most inorganics (including cadmium, lead, mercury, nickel, silver and zinc) were detected in trench drains located in the heat treatment area, which is suspected of housing a former plating line; this area was also identified as containing elevated subsurface soil inorganic levels. These trench drains are believed to have been used as part of the former plating operation and are apparently connected to a sump which could not be accessed as part of the SI. Due to the lack of facility drawings, the discharge locations for the trench drains and any associated sumps is not known. Elevated inorganics were also identified in the loading dock catch basin sediment.

The highest concentrations of VOCs were identified in a sample of charred material collected from the exhaust stack. The presence of these compounds may be related to the burning of fuel and other combustible materials (e.g., solvent-based materials); other than the periodic removal and disposal of material from the exhaust stack, there is no other apparent discharge location for this material.

Asbestos

Friable and non-friable asbestos was confirmed at a number of locations within the building. Though sampling generally focused on the basement area, asbestos is suspected of being present throughout the building. Friable asbestos was confirmed in samples of pipe insulation, tank insulation, and duct insulation. In many instances the insulation was noted to be damaged and accessible. Non-friable asbestos was identified in samples from floor tiles, roof flashing and roof penetration cement.

Exterior Investigation

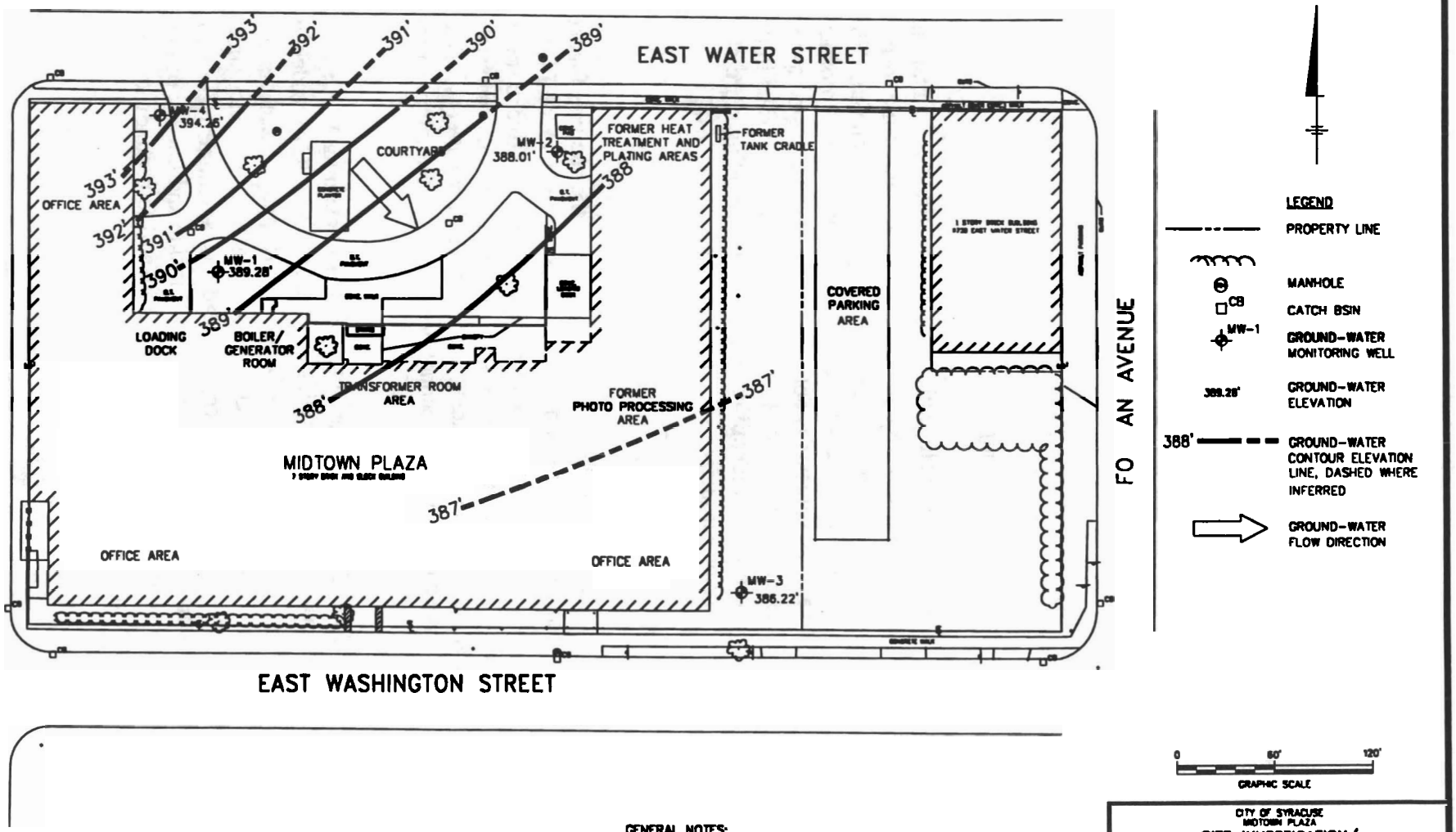
Subsurface Soil

Subsurface soil samples collected outside of the main building were identified as containing SVOCs and inorganics which exceed SCGs. SVOC exceedences were identified at the former tank cradle and in the courtyard area which included a sample of charred filled material. The grouping of SVOCs identified in the exterior subsurface soil are typical of combustion byproducts from oil and gasoline. The source of these constituents is not known, but may be related to the storage of oil in the former above ground storage tank and the disposal of burned materials in the courtyard. All of the inorganic SCG exceedences identified outside of the building were also identified as SCG exceedences in the interior subsurface soil and/or sediment samples.

Groundwater

Groundwater elevation data indicate a southeast groundwater flow direction at the site (see Figure 4). However, the regional flow direction (northwest toward Onondaga Lake), the lack of a local groundwater discharge location, and the measured groundwater elevation differential (five to seven feet) across the site, suggest that site-specific features (e.g., heterogeneous fill material, subsurface structures, leaking utilities, etc.) may be influencing groundwater flow patterns. Due to these site-specific features, groundwater flow direction cannot be accurately characterized by the existing monitoring well network.

Groundwater samples collected outside of the building were identified as containing VOCs and inorganics which exceed groundwater quality standards and guidance values. A VOC exceedence was identified at MW-03 (1,1,1-TCA at 6 ppb) and at MW-04 (xylenes at 16 ppb). Exceedences for non-mineral inorganics were identified at MW-3 and MW-4. Each of the inorganic exceedences identified in groundwater (barium, chromium, copper, lead and selenium) were also identified as SCG exceedences for soil and sediment samples collected inside and outside of the building. This relationship may be due the desorption of inorganics from soil to groundwater or the turbid nature of the un-filtered groundwater samples.



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CITY OF SYRACUSE
MIDTOWN PLAZA
SITE INVESTIGATION/
REMEDIAL ALTERNATIVE REPORT

GROUND-WATER CONTOUR MAP
OCTOBER 8, 1997

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 4

3.3 Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the health risks can be found in Section 4 of the SI Report.

An exposure pathway is how an individual may come into contact with a contaminant. The five elements of an exposure pathway are 1) the source of contamination; 2) the environmental media and transport mechanisms; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of an exposure pathway may be based on past, present, or future events.

The site is located in a mixed commercial/industrial/residential area. The building is currently vacant, and access to the building, although restricted by secured doors and windows, is possible as evidenced by repeated episodes of vandalism.

Exposure to constituents of interest on site would be limited to workers engaged in remediation (e.g., demolition and excavation) or construction at the site, and trespassers. The exposure of remediation/construction workers is mitigated by protective gear and instruction in the safe handling of contaminated materials. Trespassers could be exposed to friable asbestos in the building via inhalation and there is also a low potential for exposure to contaminated water/sediments in sumps in the basement by direct contact and incidental ingestion. Contaminated subsurface soils are not accessible to trespassers and groundwater is not used for human consumption in the area so these media are not a current health risk concern.

Whether or not exposures would result in unacceptable risks to health depends upon the concentration of the contaminants which are relatively low for an industrial setting, and the frequency and duration of exposure.

3.4 Summary of Environmental Exposure Pathways:

Given the urban setting of this site, no pathways for environmental exposure have been identified. Should future information reveal the potential for such exposures, appropriate action(s) will be taken.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past owners and operators, waste generators, and haulers.

Since no viable PRPs have been identified to date, there are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the State to recover State response costs should PRPs be identified. The City of Syracuse will assist the State in its' efforts by providing all information to the State which identifies PRPs. The City will also not enter into any agreement regarding response costs without the approval of the NYSDEC.

SECTION 5: SUMMARY OF THE REMEDIATION GOALS AND FUTURE USE OF THE SITE

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. The overall remedial goal is to meet all Standards, Criteria, and Guidance (SCGs) and be protective of human health and the environment.

At a minimum, the remedy selected should eliminate or mitigate all significant threats to the public health and to the environment presented by the hazardous substances disposed at the site through the proper application of scientific and engineering principles.

The proposed future use for the Midtown Plaza site would be commercial. The goals selected for this site are:

Reduce, control, or eliminate to the extent practicable the contamination present within the soils on site.

- Eliminate the potential for direct human contact with the contaminated soils or other contaminated media on site.
- Prevent, to the extent possible, further migration of contaminants in the soil to groundwater.
- Eliminate the potential for exposure to asbestos-containing material present in the building.
- Provide for attainment of SCGs for soil and groundwater quality, to the extent practicable.

SECTION 6: SUMMARY OF THE EVALUATION OF ALTERNATIVES

The selected remedy should be protective of human health and the environment, be cost effective and comply with other statutory laws. Potential remedial alternatives for the Midtown Plaza site were identified, screened and evaluated in a Remedial Alternatives Report. This evaluation is presented in the report entitled *Midtown Plaza Remedial Alternatives Report*, January 1998.

Based upon the understanding of the site gained from the SI, there are significant levels of inorganic contamination in the soils beneath the building and in the groundwater which appear attributable to past operation of the facility. All sumps and other drainage features which were able to be identified and sampled, have been found to be contaminated with inorganics as well as a variety of other volatile and semivolatile compounds. Furthermore, data supports that a continuing source(s) of inorganic contamination to site groundwater exists beneath the site. However, the presence of the building and the lack of any original plans, compounded by the extensive interior subdividing and renovation, make a full delineation of the extent and an identification of all sources under the building problematic. Given the intent of the brownfields program, to allow for the redevelopment of sites with a full release from future liability, the most practical means of insuring the complete remediation of the site is for the building to be razed. This would allow for a post demolition delineation of the extent of the problems, followed by a treatment or removal action. The alternatives analyzed below were assembled on this basis.

A summary of the detailed analysis follows. As used in the following text, the time to implement reflects only the time required to implement the remedy, and does not include the time required to design the remedy or procure contracts for design and construction.

6.1: Description of Alternatives

The potential remedies are intended to address contaminated soil and groundwater as well as contamination identified in various interior collection sumps and trenches at the site.

Alternative No. 1
No Action

The no action alternative is typically evaluated as a procedural requirement and as a basis for comparison. It requires continued monitoring only, allowing the site to remain in an unremediated state. This alternative would leave the site in its present condition and would not provide any additional protection to human health or the environment.

Alternative No. 2
Limited Action

Present Worth:	$ 344,000
Capital Cost:	$ 202,000
Annual O&M:	$ 11,500
Time to Implement	6 months - 1 year

Under this alternative, accessible source materials located within the building would be removed and transported off-site for treatment and/or disposal. Source materials to be removed under this alternative include: impacted surface water present in the transformer vault, catch basin and various

sumps; sediment present in trench drains, sumps, catch basin and exhaust stacks; and miscellaneous containers of chemicals present throughout the building. Impacted soil present beneath and in the vicinity of the building slab would be left in-place. Because of the presence of damaged, friable asbestos within the basement, a limited asbestos abatement program may be required for health and safety reasons, prior to performing source removal work within the basement.

Following the removal of source materials, a periodic groundwater monitoring program would be implemented to evaluate post-remediation groundwater quality. It is anticipated that as part of the groundwater monitoring program additional groundwater monitoring wells would be installed.

Alternative No. 3
Building Demolition, Source Removal with On-Site Stabilization

Present Worth:	$ 3,182,000
Capital Cost:	$ 3,134,000
Annual O&M:	$ 11,500
Time to Implement	6 months - 1 year

This alternative includes the source removal aspects of Alternative 2 and, in addition, this alternative includes the remediation of impacted soils known to be present beneath the building. Delineation and remediation of source materials present beneath the building would require building demolition.

Building demolition would be accomplished using standard construction techniques (e.g., wrecking ball, excavators, etc.) or through implosion. The actual methods to be used would be determined during the remedial design. Demolition debris would be staged on site for use as backfill material.

Because of the presence of friable asbestos throughout the building, an asbestos abatement program would be required prior to conducting building demolition. It is expected that applicable variances (AVs) available under Industrial Code Rule 56, including AV-106 for Demolition of Condemned Buildings and Structures, would be secured to allow non-friable asbestos to remain in-place during the remediation. Removed asbestos would be disposed of off-site.

Following removal of the building, a subsurface soil investigation would be conducted to identify and delineate source materials within the soil. As part of this alternative, impacted soils which present a risk to human health and/or the environment, would be treated and remain on site. The method of treatment to be employed would involve stabilization, also known as solidification and fixation. This process involves the mixture of stabilization agents with the impacted soil to alter the physical and/or chemical state of the hazardous compounds present in the soil. The resulting stabilized mass is less toxic and the chemical constituents are less leachable.

Stabilization would likely be accomplished through an in-situ technique involving the mixing of the impacted soil in place with the addition of stabilization agents. Once the stabilization agents have been mixed into the source area material, the processed material would cure in place. The stabilized mass would then be tested to confirm that the solidification performance standards have been met.

Following the remediation of the source materials, a periodic groundwater monitoring program would be implemented to evaluate post-remediation groundwater quality. It is anticipated that as part of the groundwater monitoring program additional groundwater monitoring wells would be installed.

Alternative No. 4
Building Demolition, Source Removal with Off-Site Disposal

Present Worth:	$ 3,024,000
Capital Cost:	$ 3,013,000
Annual O&M:	$ 11,500
Time to Implement	6 months - 1 year

This alternative includes all aspects of Alternative 3, however, the remedial program would entail off-site disposal of contaminated materials, rather than on-site treatment.

To access, delineate and remediate source materials identified beneath the building the structure would be demolished and the demolition debris would be staged on site for use as backfill material. Also, as with Alternative 3, an asbestos abatement program would be required prior to conducting building demolition. Removed asbestos would be disposed of off-site.

Following removal of the building, a subsurface soil investigation would be conducted to identify and delineate source materials within the soil. As part of this alternative, impacted soils which present a risk to human health and/or the environment, would be excavated and transported to an off-site landfill for disposal. The actual disposal location and the need for pre-disposal treatment would be dependent on the findings of waste characterization sampling and analysis. The excavated areas of the site would be backfilled with demolition debris. Upon completing the backfilling operation, the site would be graded and seeded to promote proper drainage and revegetation.

Following the remediation of the source materials, a one-time monitoring program would be implemented to evaluate post-remediation groundwater quality.

Alternative No. 5
Building Demolition with On-Site Containment

Present Worth:	$ 2,716,000
Capital Cost:	$ 2,573,000
Annual O&M:	$ 11,500
Time to Implement	6 months - 1 year

This alternative is similar to Alternatives 3 and 4, including removal of source materials (e.g., surface water, sediment, miscellaneous chemicals) present within the building, asbestos abatement and building demolition. However, under this alternative building demolition would be limited to the upper floors of the structure, the basement slab would remain in place to serve as a cap over the impacted soils present beneath the building foundation and serve as a containment system for impacted soils.

Following demolition of the structure, the foundation slab would be sealed to eliminate any connections to the environment. Sealing of the building would be expected to include filling subsurface piping, catch basins, sumps and drains with concrete. Impacted soil present outside the footprint of the building would be delineated through a soil investigation, excavated and placed within the foundation or disposed off-site as necessary, based on analysis. The remaining foundation area would be backfilled with demolition debris. Under this alternative, the impacted soil present beneath the building slab would not be remediated.

Following the remediation of the source materials, a long-term groundwater monitoring program would be implemented to evaluate post-remediation groundwater quality. It is anticipated that as part of the groundwater monitoring program additional groundwater monitoring wells would be installed.

6.2 Evaluation of Remedial Alternatives

The criteria used to compare the potential remedial alternatives are defined in the regulation that directs the remediation of environmental restoration project sites in New York State (6 NYCRR Part 375). For each of the criteria, a brief description is provided followed by an evaluation of the alternatives against that criterion. A detailed discussion of the evaluation criteria and comparative analysis is contained in the Remedial Alternatives Report.

The first two evaluation criteria are termed threshold criteria and must be satisfied in order for an alternative to be considered for selection.

1. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether or not a remedy will meet applicable environmental laws, regulations, standards, and guidance.

The only alternatives that can be designed to fully comply with SCGs are Alternatives 3 and 4 which include building demolition and source removal/treatment. Each of the remaining alternatives involve no treatment or removal actions for the source materials.

2. Protection of Human Health and the Environment. This criterion is an overall evaluation of the health and environmental impacts to assess whether each alternative is protective.

The no action, limited action and containment alternatives would not eliminate all source materials from the site and thus would not eliminate the leaching of chemical constituents to groundwater. Therefore, these alternatives would not meet the RAO of protecting groundwater quality and would not be fully protective of the environment. With the exception of the no action alternative, each remedial alternative is expected to reduce or eliminate potential human exposure to the source materials.

The next five "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Short-term Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

All of the remedial alternatives, with the exception of the no action alternative, involve the handling and disposal of waste materials which may present potential short-term exposures to on-site workers and passers by. Appropriate engineering controls would be necessary to mitigate such exposures. Alternatives that involve asbestos abatement and building demolition (i.e., Alternatives 3, 4 and 5) may present a higher level of potential exposure associated with the off-site migration of dust and air borne particulates. A higher level of potential risk may also exist relative to the on-site treatment of source materials in Alternatives 3. Mitigative measures such as appropriate negative air controls for asbestos abatement, dust suppression controls for demolition and excavation, air emission controls for on-site treatment and the use of PPE for all alternatives would need to be utilized to address any short-term effects.

4. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the controls intended to limit the risk, and 3) the reliability of these controls.

Under the no action, limited action and containment alternatives (Alternatives 1, 2 and 5), some source materials would be left in-place which may impact groundwater via leaching and thus may

not meet the RAO of protecting groundwater quality. Only Alternatives 3 and 4 would fully meet the RAOs of preventing human exposure to source materials and preventing impacts to groundwater quality.

5. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

With the exception of the no action alternative, each of the remedial alternatives would provide some level of reduction in toxicity, mobility or volume. Because Alternatives 3 and 4 would address all source materials present at the site, these Alternatives would result in the greatest reduction in toxicity, mobility or volume. Alternative 3, building demolition and source removal with on-site stabilization, would result in a reduction of constituent toxicity and mobility. Because Alternative 4, building demolition and source removal with off-site disposal, includes the off-site disposal of all source materials, this alternative would fully address the on-site toxicity, mobility and volume of the constituents present in the source material. Alternatives 1, 2 and 5 would not address the toxicity, mobility or volume of source materials present in the site soil.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction and the ability to monitor the effectiveness of the remedy. For administrative feasibility, the availability of the necessary personnel and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc.

All of the remedial alternatives are technically feasible and could be implemented at the site. Alternatives 1 and 2, however, would hinder if not prohibit future site development. Alternatives 3 and 4 would allow reuse of the site, thus satisfying this programmatic goal. Alternative 5, likewise, would allow site reuse, though certain restrictions may be necessary in light of the waste which remains on site.

7. Cost. Capital and operation and maintenance costs are estimated for each alternative and compared on a present worth basis. Although cost is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the remaining criteria, cost effectiveness can be used as the basis for the final decision. The costs for each alternative are presented in Table 2.

This final criterion is considered a modifying criterion and is taken into account after evaluating those above. It is focused upon after public comments on the Proposed Remedial Action Plan have been received.

8. Community Acceptance - Concerns of the community regarding the SI/RAR reports and the Proposed Remedial Action Plan have been evaluated. A "Responsiveness Summary", included

as Appendix A, presents the public comments received and the Department's response to the concerns raised. No significant public comments were received.

SECTION 7: SUMMARY OF THE SELECTED REMEDY

Based upon the results of the SI/RAR, and the evaluation presented in Section 6, the NYSDEC is selecting Alternative 4 as the remedy for this site.

This selection is based upon the comparative analysis, which supports that Alternative 4, Building Demolition and Source Removal with Off-Site Disposal, is the most-cost effective remedial alternative capable of meeting the RAOs. Alternatives 1 and 2 were not fully protective of the environment and will not achieve the RAOs. Alternative 3, Building Demolition and Source Removal with On-Site Stabilization, could meet the RAOs but at a higher cost and with greater implementation considerations (treatability study, etc.). Alternative 5 could meet the RAOs, but this alternative entails on-site containment. This may hinder the future development potential of the site. Alternative 4 will satisfy each of the threshold criteria, each of the primary balancing criteria and will meet the programmatic goal of allowing site re-development.

The estimated present worth cost to implement the remedy is $3,024,000. The cost to construct the remedy is estimated to be $3,013,000 and the estimated operation and maintenance cost for a post-remedial monitoring event of $11,500.

The elements of the selected remedy are as follows:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the demolition, delineation of source materials, and construction of the remedial program. Any uncertainties identified during the SI/RAR will be resolved.

2. Removal of the contaminated materials in identified sumps, catch basins, and collection trenches.

3. Remediation of the transformer vault including removal and proper disposal of the transformers, PCB oil and the contaminated water within.

4. An asbestos abatement program addressing all friable asbestos within the building in anticipation of building demolition.

5. Building demolition. The building will be razed using standard demolition techniques.

6. A post-demolition declination/ investigation, identifying the extent of contamination beneath the former slab. Source areas including contaminant "hot spots", dry wells or other subsurface features contributing to the contamination will be identified and delineated.

7. Contaminated soils beneath the building will be excavated, as necessary, for off-site disposal.

8. The site will be backfilled using demolition debris to the extent feasible, graded and restored.

9. A post-remedial groundwater monitoring program will be initiated to confirm the effectiveness of the remedy.

SECTION 8: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the Midtown Plaza environmental restoration process, a number of Citizen Participation (CP) activities were undertaken in an effort to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- A repository for documents pertaining to the site was established.

  A site mailing list was established which included nearby property owners, local political officials, local media and other interested parties.

  In October 1997 a Fact Sheet was sent to the site mailing list announcing the City's intentions to conduct a Site Investigation and evaluation of remedial alternatives under the Brownfields program.

- In January 1998 a Fact Sheet was sent to the site mailing list announcing the availability of the Proposed Remedial Action Plan and plans for a public meeting to accept comments on the NYSDEC's proposed remedy.

  On February 12, 1998 the NYSDEC held a Public Meeting to explain the State's proposed remedy and to accept comments on the PRAP.

- In March 1998 a Responsiveness Summary was prepared and made available to the public, to address the comments received during the public comment period for the PRAP.

Table 1 - Nature and Extent of Contamination

MEDIA	CLASS	CONTAMINANT OF CONCERN	CONCENTRATION RANGE	FREQUENCY of EXCEEDING SCGs	SCG
Subsurface Soils (Interior)	(VOCs)	None exceeding SCGs			
	(SVOCs)	benzo(a)anthracene	ND to 0.68 ppm	9 of 10	0.224 ppm
	Pest/PCBs	None exceeding SCGs			
	Metals	Chromium	9 to 649 ppm	2 of 10	50 ppm
		Copper	12 to 51.9 ppm	4 of 10	25 ppm
		Mercury	ND to 0.16 ppm	2 of 10	0.1 ppm
		Nickel	8.7 to 29.7 ppm	4 of 10	13 ppm
		Zinc	16.3 to 110 ppm	5 of 10	20 ppm
Surface Water (Interior)	VOCs	Vinyl chloride	ND to 5 ppb	1 of 5	0.3 ppb
		1,2-DCE	ND to 52 ppb	1 of 5	5 ppb
		TCE	ND to 11 ppb	1 of 5	3 ppb
		PCE	ND to 8 ppb	1 of 5	0.7 ppb
	SVOCs	Various TICs	41 to 13,404 ppb	5 of 5	NA
	Pest/PCBs	Heptachlor	ND to 0.05 ppb	1 of 5	0.009 ppb
		4,4-DDE	ND to 0.66 ppb	1 of 5	0.01 ppb
		4,4-DDD	ND to 0.06 ppb	1 of 5	0.01 ppb
		Alpha Chlordane	ND to 0.61 ppb	1 of 5	0.02 ppb
		Gamma chlordane	ND to 0.06 ppb	1 of 5	0.06 ppb
		Aldrin	ND to 0.19 ppb	1 of 5	0.02 ppb
		Endrin	ND to 1.2 ppb	1 of 5	0.2 ppb
	Metals	Chromium	ND to 74.5 ppb	1 of 5	50 ppb
		Copper	3.9 to 363 ppb	1 of 5	200 ppb
		Mercury	ND to 2 ppb	1 of 5	2 ppb
		Lead	ND to 130 ppb	1 of 5	50 ppb
		Zinc	26.1 to 1040 ppb	2 of 5	300 ppb
Sump/ Oil	PCBs	Aroclor - 1254	28,000 ppb	1 of 1	0.01 ppb
		Aroclor - 1260	13,000 ppb	1 of 1	0.01 ppb
Sediment (Interior)	VOCs	Acetone	ND to 0.76 ppm	1 of 5	0.2 ppm
		Toluene	ND to 18 ppm	1 of 5	1.5 ppm
		Ethylbenzene	ND to 7.4 ppm	1 of 5	5.5 ppm
		Xylene (total)	ND to 37 ppm	1 of 5	1.2 ppm

MEDIA	CLASS	CONTAMINANT OF CONCERN	CONCENTRATION RANGE	FREQUENCY of EXCEEDING SCGs	SCG
Sediment (Interior) (continued)	SVOCs	Acenapthene	ND to 98 ppm	1 of 5	50 ppm
		Dibenzofuran	ND to 46 ppm	1 of 5	6.2 ppm
		Flourene	ND to 73 ppm	1 of 5	50 ppm
		Phenanthrene	0.1 to 800 ppm	1 of 5	50 ppm
		Anthracene	ND to 110 ppm	1 of 5	50 ppm
		Flouranthene	0.22 to 800 ppm	1 of 5	50 ppm
		Pyrene	0.38 to 750 ppm	1 of 5	50 ppm
		Benzo(a)anthracene	ND to 270 ppm	3 of 5	0.224 ppm
		Chrysene	ND to 260 ppm	2 of 5	0.4 ppm
		Benzo(b)flouranthene	ND to 230 ppm	1 of 5	1.1 ppm
		Benzo(k)flouranthene	ND to 150 ppm	1 of 5	1.1 ppm
		Benzo(a)pyrene	ND to 200 ppm	4 of 5	0.061 ppm
		Ideno(1,2,3-cd)pyrene	ND to 130 ppm	1 of 5	3.2 ppm
		Dibenzo(a,h)anthracene	ND to 67 ppm	2 of 5	0.014 ppm
		Benzo(g,h,i)perylene	ND to 120 ppm	1 of 5	50 ppm
		Naphthalene	ND to 110 ppm	1 of 5	13 ppm
	PCBs/Pest	None exceeding SCGs			
	Metals	Arsenic	2.5 to 110 ppm	3 of 5	7.5 ppm
		Barium	14.7 to 1380 ppm	1 of 5	300 ppm
		Cadmium	0.11 to 66.6 ppm	3 of 5	10 ppm
		Chromium	5.4 to 3020 ppm	4 of 5	50 ppm
		Copper	1.6 to 5260 ppm	4 of 5	25 ppm
		Lead	11.1 to 4310 ppm	3 of 5	500 ppm
		Mercury	0.4 to 147 ppm	5 of 5	0.1 ppm
		Nickel	1.5 to 1330 ppm	4 of 5	13 ppm
		Selenium	0.47 to 2.6 ppm	1 of 5	2 ppm
		Zinc	4.7 to 5420 ppm	4 of 5	20 ppm
Subsurface Soil (Exterior)	VOCs	None exceeding SCGs			
	SVOCs	Benzo(a)anthracene	ND to 8 ppm	2 of 4	0.224 ppm
		Chrysene	ND to 6.7 ppm	2 of 4	0.4 ppm
		Benzo(b)flouranthene	ND to 10 ppm	2 of 4	1.1 ppm
		Benzo(k)flouranthene	ND to 6.2 ppm	2 of 4	1.1 ppm
		Benzo(a)pyrene	ND to 7.2 ppm	2 of 4	0.061 ppm
		Indeno(1,2,3-cd)pyrene	ND to 4.1 ppm	1 of 4	3.2 ppm
		Dibenzo(a,h)anthracene	ND to 2.2 ppm	2 of 4	0.014 ppm

MEDIA	CLASS	CONTAMINANT OF CONCERN	CONCENTRATION RANGE	FREQUENCY of EXCEEDING SCGs	SCG
Subsurface Soil Exterior (continued)	Pest/PCBs	None exceeding SCGs			
	Metals	Arsenic	2.3 to 148 ppm	2 of 4	7.5 ppm
		Barium	46.5 to 570 ppm	1 of 4	300 ppm
		Cadmium	0.17 to 3 ppm	0 of 4	10 ppm
		Chromium	5.7 to 53.3 ppm	1 of 4	50 ppm
		Copper	11 to 272 ppm	2 of 4	25 ppm
		Lead	4 to 752 ppm	1 of 4	500 ppm
		Mercury	0.06 to 3.4 ppm	2 of 4	0.1 ppm
		Nickel	7.7 to 165 ppm	2 of 4	13 ppm
		Selenium	0.46 to 11 ppm	1 of 4	2 ppm
		Zinc	18.9 to 638 ppm	3 of 4	20 ppm
Groundwater (Exterior)	VOCs	1,1,1-TCA	ND to 6 ppb	1 of 3	5 ppb
		Xylene	ND to 16 ppb	1 of 3	5 ppb
		Vinyl chloride	ND to 2 ppb	1 of 3	2 ppb
	SVOCs	None exceeding SCGs			
	Pest/PCBs	None exceeding SCGs			
	Metals	Barium	202 to 2190 ppb	1 of 3	1000 ppb
		Chromium	8.7 to 92.9 ppb	1 of 3	50 ppb
		Copper	8.9 to 382 ppb	1 of 3	200 ppb
		Lead	2.1 to 76.8 ppb	1 of 3	25 ppb
		Selenium	ND to 11.5 ppb	1 of 3	10 ppb

Table 2
Remedial Alternative Costs

Remedial Alternative	Capital Cost	Annual O&M	Total Present Worth
No Action	$0	$0	**$0**
Limited Action	$202,000	$11,500	**$344,000**
Building Demolition, Source Removal with On-Site Stabilization	$3,134,000	$11,500	**$3,182,000**
Building Demolition, Source Removal with Off-Site Disposal	$3,013,000	$11,500	**$3,024,000**
Building Demolition with On-Site Containment	$2,573,000	$11,500	**$2,716,000**

APPENDIX A

RESPONSIVENESS SUMMARY

Midtown Plaza Environmental Restoration Site
Proposed Remedial Action Plan
Syracuse (C), Onondaga County
Site No. B-0003-7

The Proposed Remedial Action Plan (PRAP) for the Midtown Plaza Site, was prepared by the New York State Department of Environmental Conservation (NYSDEC) and issued to the local document repository on January 15, 1998. This Plan outlined the preferred remedial measure proposed for the remediation of the Midtown Plaza Site. The preferred remedy includes Building Demolition and Source Removal with Off-Site Disposal.

The release of the PRAP was announced via a notice to the mailing list, informing the public of the PRAP's availability.

A public meeting was held on February 12, 1998 to present the Site Investigation (SI), the Remedial Alternatives Report (RAR) and the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site.

The public comment period for the PRAP closed on March 3, 1998, no written comments were submitted.

This Responsiveness Summary responds to all questions and comments raised at the February 12, 1998 public meeting.

The following are the comments received, with the NYSDEC's responses:

Comment 1: Why does the Brownfields program only reimburse 50% of the cost for asbestos abatement?

Response 1: The Bond Act legislation states that the State Assistance Contract will provide for reimbursement of **up to** 75% of the eligible costs. The initial draft of the regulation and guidance documents for the brownfields program included no provision for the funding of demolition and asbestos abatement. During the review phase for this document many of the commentors felt that these costs should be considered eligible costs. After carefully considering comments and recommendations, the Department revised and issued as final TAGM No. 97-4058, which allowed for the eligibility of demolition costs and asbestos abatement costs. It was determined that the State and the applicant will

each pay 50% of the costs for these project components. The only exception to the 50% maximum reimbursement will be if the demolition debris must be disposed in a RCRA "C" landfill. In that case the reimbursement will be made at 75%. Asbestos abatement/removal costs are eligible as follows: All indoor asbestos projects (including roof shingles or siding) will be treated like demolition debris and are eligible at a 50 % reimbursement rate unless the asbestos removed is indoor asbestos which must be disposed of in a RCRA "C" landfill in which case the rate is 75%. Outdoor asbestos (loose or exterior piping) will be reimbursed at 75%. In no event, however, will the Department reimburse costs of a project consisting exclusively, or almost exclusively, of demolition of a structure or asbestos abatement inside a structure.

Comment 2: Can the remediation project commence this year?

Response 2: It is anticipated that the Record of Decision will be issued within the next several weeks. After issuance of the ROD, the next step is approval of the City's application for a remedial grant. Upon application approval, the City and the State must enter a State Assistance Contract for this work. Project design could then commence and upon design completion, the project could be bid and awarded. If all of these requirements can be satisfied, the field program could commence this year.

Comment 3: Does the State require one prime contractor to implement and/or oversee the entire project?

Response 3: No. It is possible that the City will award contracts to a number of individual contractors (demolition, asbestos abatement, etc.). This depends largely on the approach which is determined to be most cost-effective manner of completing the project and will be determined based on discussions between the City and the NYSDEC.

APPENDIX B

ADMINISTRATIVE RECORD

The following documents, which have been available at the document repositories, constitute the Administrative Record for the Midtown Plaza Site, Site Investigation/Remedial Alternatives Report.

MAY 1997:	State Assistance Contract (SAC) for the Midtown Plaza Site
AUGUST 1997:	Site Investigation/Remedial Alternatives Report (SI/RAR) Work Plan
JANUARY 1998:	Site Investigation Report
JANUARY 1998:	Remedial Alternatives Report
JANUARY 1998:	Proposed Remedial Action Plan