Garden City Park Industrial Area

PRELIMINARY SITE ASSESSMENT

PROJECT MANAGEMENT WORK PLAN

Sprague Goodman Electronics and Related Sites
Town of North Hempstead, Nassau County
(Site Registry Nos. 1-30-073A,B,C&D)

CONTRACT NO. D002708-21

Dvirka and Bartilucci
Consulting Engineers

MAY 1995

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APPROVED

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APPROVED

PRELIMINARY SITE ASSESSMENT
PROJECT MANAGEMENT WORK PLAN

PRELIMINARY SITE ASSESSMENTS
FOR THE
SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
(SPRAGUE GOODMAN ELECTRONICS,
JOSEPH STRUHL COMPANY,
PRECISION FABRICATORS AND
MERCURY ELECTRIC)
TOWN OF NORTH HEMPSTEAD
NASSAU COUNTY, NEW YORK

CONTRACT NO. D002708-21

PREPARED FOR

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION

BY

DVIRKA AND BARTILUCCI
CONSULTING ENGINEERS
SYOSSET, NEW YORK

MAY 1995

PRELIMINARY SITE ASSESSMENTS
SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
(SPRAGUE GOODMAN ELECTRONICS,
JOSEPH STRUHL COMPANY,
PRECISION FABRICATORS AND
MERCURY ELECTRIC)

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Section 1

1.0 INTRODUCTION

As part of New York State's program to investigate and remediate hazardous waste sites, the New York State Department of Environmental Conservation (NYSDEC) has entered into a contract with the firm of Dvirka and Bartilucci Consulting Engineers of Syosset, New York to conduct four preliminary site assessments (PSA) for the Sprague Goodman Electronics and Related Sites (Sprague Goodman Electronics, Joseph Struhl Company, Precision Fabricators and Mercury Electric) located in the Garden City Park Industrial Area, Town of North Hempstead, Nassau County, New York. The PSAs for these sites are being performed with funds allocated under the New York State Superfund Program.

The field program for the Sprague Goodman Electronics and Related Sites will involve groundwater/soil probe survey and sampling, groundwater monitoring well sampling and dry well sampling.

The purpose of these PSAs is to determine if the sites are contributing to the known groundwater contamination in the industrial area. The PSAs will attempt to determine areas of hazardous waste disposal and to assess the level of threat, if any, that each identified source may pose to the environment.

This document, entitled "Preliminary Site Assessment Work Plan for the Sprague Goodman Electronics and Related Sites (Sprague Goodman Electronics, Joseph Struhl Company, Precision Fabricators and Mercury Electric)," has been prepared in accordance with NYSDEC Technical and Administrative Guidance Memoranda and contains a site-specific Sampling and Analysis Plan, Quality Assurance/Quality Control Plan, and Health And Safety Plan necessary to carry out all elements of the Preliminary Site Assessment. Each of these subplans are prepared essentially as "stand-alone" documents.

The Work Plan also includes the rationale for the design of the field program including the selection of sampling locations, the chemical constituents of concern, the procedures to

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assure the required technical quality of the samples and data, and the safety procedures to protect worker health.

2.0 SUMMARY OF EXISTING INFORMATION

2.1 Site Location, Ownership and Access

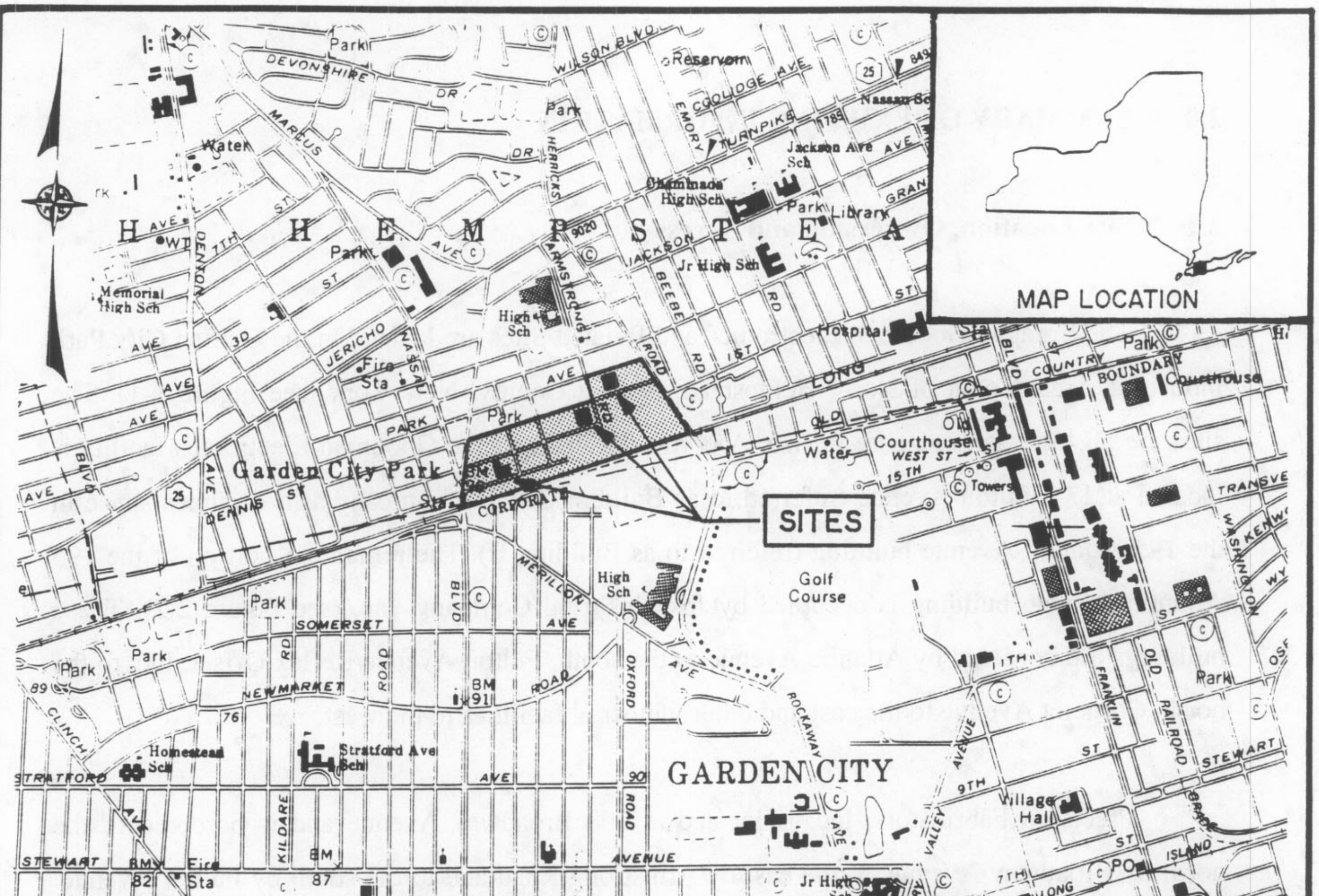
The Sprague Goodman Electronics and Related Sites are located in the Garden City Park Industrial Area, Town of North Hempstead, Nassau County, New York (see Figure 2-1). The sites are all less than one acre in size. A portion of the Sprague Goodman Electronics facility is located at 134 Fulton Avenue (referred to as Building A). The company also occupies space in the 195 Atlantic Avenue building (referred to as Building B). The remaining portion of the 195 Atlantic Avenue building is occupied by Joseph Struhl Company, Inc. (see Figure 2-2). These buildings are bordered by Atlantic Avenue to the south, Fulton Avenue/Reflex Offset, Inc. to the north, Cornelia Avenue to the east and other industrial facilities to the west.

Precision Fabricators, Inc. is located at 200 Broadway Avenue and is bordered to the north by Broadway Avenue, to the east by Armstrong Road and to the south by Fulton Avenue. The building directly to the west of Precision Fabricators is currently occupied by National Wholesale Liquidators.

Mercury Electric is located at 270 Park Avenue. The site is bordered to the south by Broadway Avenue to the north by Park Avenue and to the west by Armstrong Road. The eastern portion of the building is occupied by Apex Business Systems.

The sites are currently owned and most recently leased by the following:

Sites	Owner	Occupant
Sprague Goodman Electronics (A)	Jack and Claire Goodman	Sprague Goodman Electronics
Sprague Goodman Electronics (B)	Kegalcliste Realty Corp.	Sprague Goodman Electronics



GARDEN CITY PARK INDUSTRIAL AREA BOUNDARY

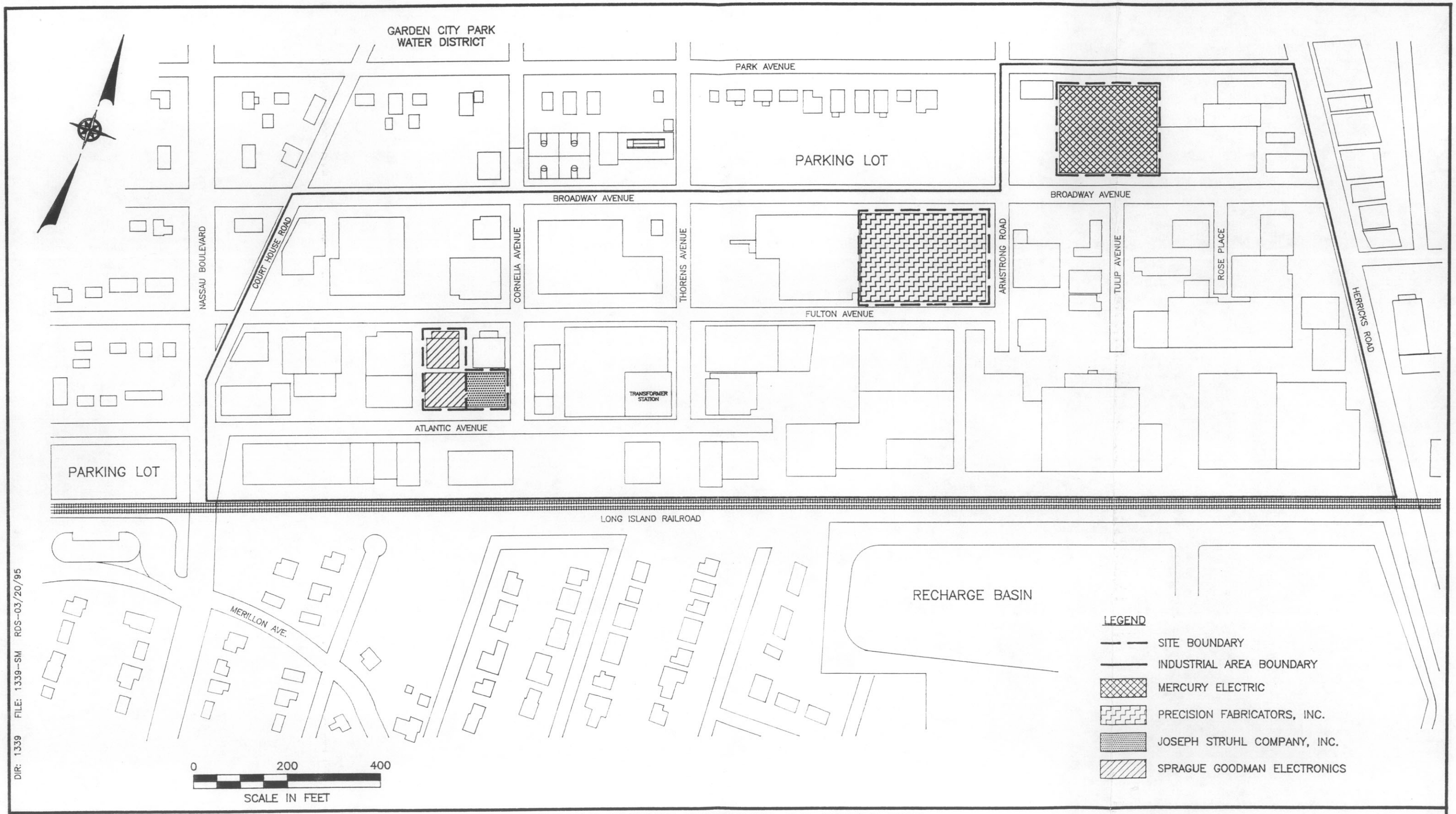
SOURCE: NYSDOT LYNBROOK, N.Y. QUADRANGLE, 1981

SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
(GARDEN CITY PARK INDUSTRIAL AREA)
TOWN OF NORTH HEMPSTEAD, NEW YORK

SITE LOCATION MAP

Dvirka and Bartilucci
Consulting Engineers

FIGURE 2 - 1



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Dvirka and Bartilucci
Consulting Engineers
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SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
(GARDEN CITY PARK INDUSTRIAL AREA)
TOWN OF NORTH HEMPSTEAD, NEW YORK

SITE MAP

FIGURE 2-2

Sites	Owner	Occupant
Joseph Struhl Company, Inc.	Kegalcliste Realty Corp.	Joseph Struhl Company, Inc.
Precision Fabricators, Inc.	Gordon Broadway Corporation	Precision Fabricators, Inc.
Mercury Electric	Medal Realty Corp.	Mercury Electric

Sprague Goodman Electronics and Precision Fabricators, Inc. are no longer located at these addresses. At this time the buildings are currently vacant. Access to the facilities can be made from any of the adjacent roadways.

2.2 Site Description and History

The Sprague Goodman and Related Sites are located in a highly industrialized area referred to as the Garden City Park Industrial Area. According to the Nassau County Department of Health (NCDH), a review of historical aerial photographs indicates that the majority of the industrial area was developed in the 1950s.

The industrial area has been served by a municipal sanitary sewer system since about 1958 or 1959; however, prior to that time wastewater was discharged to on-site sanitary systems. Storm water is collected in a municipal storm sewer system and discharged to a recharge basin located to the south of the industrial area. The industrial area has been served by public water since the early 1920s.

The following sections will provide site specific information on each of the facilities:

2.2.1 Sprague Goodman Electronics

Sprague Goodman Electronics was located at this facility for approximately 25 years. The facility manufactured electronic components. Process operations included electroplating of copper and tin. According to NCDPW files, chemicals used in this process included 1,1,1-trichloroethane (TCA), copper, copper sulfate, stannous sulfate and sulfuric acid. According to a

1990 Toxics Organics Management Plan prepared by Sprague Goodman, they utilized approximately 3,600 gallons per year of TCA. The TCA was used for cleaning glass and metal components. Waste disposal of this material was managed through a licensed hauler. The material was stored on-site in an aboveground tank. Semiannual compliance reports indicated disposal of various amounts of TCA by a licensed hauler over the past several years. Volumes ranged from 0 to 385 gallons. TCA was observed in 5-gallon cans at the facility during a 1993 industrial survey conducted by Dvirka and Bartilucci Consulting Engineers (D&B) and NCDH. According to Sprague Goodman, only about 5 gallons per year were used in 1993. Solvents were kept in a locked shed located in an alleyway between the northern (A) and southern (B) portions of the building. No floor drains or slop sinks were observed at the facility during the 1993 industrial survey. Sprague Goodman Electronics moved out of the facility in December 1994.

2.2.2 Joseph Struhl Company, Inc.

The Joseph Struhl Company, Inc. has been located at its present address since approximately 1961 when the building was constructed. The company is in the screen printing business including selling and manufacturing of advertising displays. Cyclohexannone and petrol naphtha are used as cleaning solvents in the printing process. Approximately 200 gallons of cleaning solvents are used each year. A June 1992 industrial survey indicated the following chemical usage:

Lacquer Solvent	50 gallons
Inks	400 gallons
Special Solvent	300 gallons
Resin Bond #6 (1,1,1-trichloroethane)	30 gallons
Resin Bond #1 (dichloromethane)	40 gallons

The final disposition of the chemicals include evaporation during the process or they remain in the product. The cleaning solvents are contained in metal storage cabinets along the northeast wall of the building. A 2,000-gallon underground No. 2 fuel oil tank was removed from the

parking lot along the west side of the building approximately in 1992. During excavation of the tank, a second tank was uncovered. This tank was determined to be a 2,500-gallon tank containing kerosene. This tank was determined to be intact and was also removed. No floor drains or slop were observed during the 1993 industrial survey.

2.2.3 Precision Fabricators, Inc.

Precision Fabricators, Inc. was located at this facility for approximately 26 years. Precision Fabricators went out of business in December 1994. Currently, the building is empty. The company previously fabricated metal consisting mostly of aluminum parts, for government contractors. The manufacturing process included fabrication, plating, painting and storage of metal parts.

In 1977, Precision Fabricators, Inc. applied for a State Pollutant Discharge Elimination System (SPDES) permit. As part of that permit, Precision Fabricators indicated that the facility had two outflows. Outflow 2 was hooked up directly to the municipal sewer system. This outflow discharged approximately 1,500 gallons per day, 6 days per week. Materials discharged to outflow 2 include water from their rinse tanks which were neutralized prior to discharge. Residual sludge was removed by a commercial scavenger. Outflow 1 was a dry well which received approximately 2,000 gallons of water per day. This water was primarily used for cooling their transformers. A portion of the water was used to rinse parts prior to and after brazing.

Upon receipt of the permit by NCDH, Precision Fabricators, Inc. was notified that the discharge to the dry well was in direct violation of the sewer ordinance. Upon receipt of the notification, Precision Fabricators, Inc. proceeded with connection of the dry well to the existing sewer.

As part of the manufacturing process, several thinners, solvents and acids were used, including xylene, toluene, 1,1,1-trichloroethane, methyl ethyl ketone, methanol, sulfuric acid and 5% nitric solution oxidizer. These chemicals were stored in the northwestern portion of the

facility in the painting area and the west central portion of the building in the plating area. All chemicals are stored in drums. Spent solvents are collected in 55-gallon drums and stored in the western side of the building and periodically disposed of through a private disposal service.

A partial basement exists east of the painting area. The basement formerly contained storage tanks which contained iron phosphate. Currently the basement is empty, however, a small 4-inch diameter pipe exits the south wall of the basement. During the 1993 industrial survey, clear unidentified liquid was observed to slowly discharge from the pipe into an open 55-gallon drum located in the basement. The acid/wash baths for the plating process are located in the west central potion of the facility. A floor drain also exists in this area. This drain discharges directly to the municipal sewer system. A 5,000-gallon underground No. 2 fuel oil tank exists on the eastern portion of the property. The tank was tested for tightness in 1994 and passed. Several aboveground tanks, including one 275-gallon trichloroethene tank, was located in the interior of the building. This tank has been out of service since 1992.

2.2.4 Mercury Electric

According to information obtained from NCDH, Mercury Electric has been located at this facility since 1970. The facility currently manufactures electronic products. The manufacturing process includes stamping, painting and molding assembly. Mercury Electric was sold to Mercury Lighting in 1992. The facility has permits for two air emissions, including a bake oven and spray booth. No floor drains were observed at the facility during a June 1992 industrial survey conducted by the NCDH. In 1992, trichloroethene (TCE) was not being used, however, information provided by NCDH indicated that TCE was used when permits were processed. An earlier industrial survey conducted in 1977 indicated that both TCE and Zylol oil were being utilized. Waste reports indicted a usage of 18,000 lbs./yr. of TCE from 1978 to 1980; 872 gallons of TCE for the period 1981 to 1982; and 425 gallons of TCE for 1983.

According to information obtained from NCDH, the six aboveground storage tanks located in the exterior of the building contain plasticizers (pellets). The pellets are used for injection molds for sewing machine cases.

2.3 Previous Investigations

In 1985 and 1986, NCDH conducted a groundwater contamination study entitled "Investigation of Contaminated Aquifer Segments, Nassau County, New York," for which a report was issued in June 1986. One of the five areas investigated in the study was the Garden City Park Industrial Area. As part of the investigation of this area, nine groundwater monitoring wells were installed and sampled (GCP-1 to GCP-9) (see Figure 2-3). In addition, information on groundwater quality was obtained from four existing groundwater monitoring wells and four public water supply wells in the area, and incorporated into the report. Two rounds of samples were collected at each of the nine wells, except for two wells, GCP-1 and GCP-2, which were sampled four and three times, respectively. The nine wells constructed as part of the investigation were installed at or just below the water table, i.e., between 40 and 65 feet. The public water supply wells are between 405 and 480 feet deep, and the existing monitoring wells are between 76 and 96 feet deep. Samples were analyzed for volatile organic compounds (VOCs).

Results of sample analyses indicated the presence of VOCs exceeding the previous New York State standards and guidelines for drinking water in 9 of the 13 groundwater monitoring wells sampled. The primary contaminant detected was tetrachloroethene. The highest levels were detected in monitoring well GCP-1 at 36,000 ug/1 in December 1985 and 50,000 ug/l in January 1986. The investigation report concluded that "the extent of the contamination cannot be assessed based on available data. More consistent data over time, as well as additional wells are needed."

In 1991, subsequent to the 1986 investigation the NCDPW and NCDH conducted a cooperative study during which 12 additional monitoring wells were installed within and downgradient of the Garden City Park Industrial Area including (GCP-10S, GCP-10, GCP-7D and GCP-16S). Seven wells were screened at the water table and five were screened approximately

GARDEN CITY PARK WATER DISTRICT
GCP–6
PARK AVENUE
GCP–10S
GCP–10D
GCP–16S
PARKING LOT
GCP–3
BROADWAY AVENUE
BROADWAY AVENUE
PF–3
NASSAU BOULEVARD
COURT HOUSE ROAD
CORNELIA AVENUE
THORENS AVENUE
GCP–2
ARMSTRONG ROAD
TULIP AVENUE
ROSE PLACE
HERRICKS ROAD
FULTON AVENUE
PF–2
PF–1
GCP–5
GCP–4
TRANSFORMER AREA
GCP–1
ATLANTIC AVENUE
GCP–7S
PARKING LOT
GCP–7D
LONG ISLAND RAILROAD
GCP–8
GCP–9
MERILLON AVE.
RECHARGE BASIN

LEGEND
- SITE BOUNDARY
- INDUSTRIAL AREA BOUNDARY
- EXISTING MONITORING WELL LOCATION
- MERCURY ELECTRIC
- PRECISION FABRICATORS, INC.
- JOSEPH STRUHL COMPANY, INC.
- SPRAGUE GOODMAN ELECTRONICS

0 200 400
SCALE IN FEET

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SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
(GARDEN CITY PARK INDUSTRIAL AREA)
TOWN OF NORTH HEMPSTEAD, NEW YORK

MONITORING WELL LOCATIONS

FIGURE 2–3

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100 feet below the water table. In addition, two wells (one shallow and one deep) were installed upgradient of the site to provide background information on groundwater quality. Two rounds of groundwater samples were collected from both the existing wells and 14 new wells, and analyzed for VOCs. Results of this investigation are contained in a report entitled, "Garden City Park Groundwater Quality Study Preliminary Report" prepared by NCDH and NCDPW in April 1993.

Results of the investigation confirmed the presence of high levels of VOCs in the groundwater with the highest level detected at well GCP-1 which contained 13,000 ug/1 of tetrachloroethene.

The results of the 1991 study also showed that some of the deeper downgradient wells contained greater concentrations of VOCs than the water table wells in the same location/cluster. As a result, the investigation report concluded that the plume is moving vertically downward as it migrates downgradient to the southwest. Additionally, wells originally intended to be installed to define the downgradient limits of the plume also contained elevated levels of VOCs. One deep well approximately one quarter of a mile downgradient of the site contained the highest levels of VOCs of all of the deep monitoring wells with 744 ug/1 of tetrachloroethene.

Three additional shallow wells also exist in the industrial area. These wells were installed by Precision Fabricators, Inc. and are indicated as PFI-1, PFI-2 and PFI-3 on Figure 2-3.

Seventeen public supply wells are believed to be currently impacted by what appears to be a single groundwater contaminant plume emanating from this industrial area. These wells are owned or operated by five suppliers which serve a combined population of approximately 215,000. At the present time, the impacted wells are either removed from service or treated to meet drinking water standards and guidelines.

Information provided in the 1991 investigation indicated that raw water quality in 13 of the 17 public water supply wells contained VOCs in excess of current drinking water standards/ guidelines. Raw water quality in the remaining four wells was within drinking water standards at

the time of the study. However, because individual compounds, although below standards, were detected in these four wells, all 17 wells had either been previously removed from service or are currently being treated by the water suppliers. These wells are being impacted by tetrachloroethene and trichloroethene.

The majority of the impacted public water supply wells are screened within the lower Magothy aquifer, while the wells that currently meet the standards (prior to treatment) are screened much shallower. The report concludes that this confirms that the plume is migrating downward as it moves away from the site. The 1991 study recommended that additional investigation is needed to further determine the extent and source(s) of the plume.

As part of Nassau County's investigation of potential sources of groundwater contamination, industrial surveys were performed involving the facilities in the Garden City Park Industrial Area. Industrial surveys have been conducted by NCDH from as early as 1977. The most recent surveys were conducted in May 1993. These surveys indicated a few users of the contaminants of concern, including tetrachloroethene, trichloroethene and 1,1,1-trichloroethane, in the industrial area.

As a result of the investigations conducted by NCDH and NCDPW, the Garden City Park Industrial Area was considered a New York State Superfund potential hazardous waste site. Under this program, Dvirka and Bartilucci Consulting Engineers, under contract to the NYSDEC, conducted a Preliminary Site Assessment (PSA) for the Garden City Park Industrial Area in April 1994. The results of the investigation have been compiled into a Preliminary Site Assessment Report dated September 1994. The report presented the results of an extensive groundwater survey conducted throughout the industrial area.

Although there was no documentation of hazardous waste disposal in the study area, significantly elevated levels of tetrachloroethene (up to 46,000 ug/l) were detected in groundwater in the vicinity of the 150 Fulton Avenue facility. Elevated levels of trichloroethene (up to 1,900 ug/l) and 1,1,1-trichloroethane (up to 260 ug/l) were also found in the vicinity of 150 Fulton Avenue. As a result of this PSA, it was recommended that additional investigation be performed to

determine the exact location of the source entry area. A Focused Remedial Investigation has been initiated at the 150 Fulton Avenue facility to locate what is believed to be the primary source of the PCE contamination.

In addition to the 150 Fulton Avenue facility, the Sprague Goodman Electronics and Related Sites were also identified during the PSA as potential contributors to the documented groundwater contamination. As a result, preliminary site assessments were recommended to be performed at these sites to determine if they are sources of groundwater contamination.

3.0 PROJECT SCOPING

3.1 Approach and Objectives

The approach of the Preliminary Site Assessments (PSAs) at the Sprague Goodman Electronics and Related Sites is to conduct a field investigation to determine if the sites are contributing to the documented groundwater contamination in the industrial area. The PSAs will focus on reviewing existing information and performing field investigations in an attempt to identify source(s) of groundwater contamination.

The Work Plan contained in this document is structured to allow for a phased approach to the collection of field information during the investigation. This approach will provide sufficient information to locate potential sources of contamination.

3.2 Project Description

For each of the sites, three tasks will be conducted including: Project Scoping and Work Plan Development; Field Investigation and Report Preparation. The tasks below will be conducted concurrently for each of the sites, and therefore, the discussion has been structured to address all of the sites.

3.2.1 Task A - Project Scoping and Work Plan Development

The initial phase of these PSAs comprises project scoping and work plan development. Project scoping has included data collection and review of existing information, and discussions with the New York State Department of Environmental Conservation (NYSDEC) regarding project objectives, and sampling locations and procedures. These discussions have allowed for development of the scope of work for the project. Due to familiarity with the sites, a formal scoping session was not required.

The task also includes development of a detailed work plan which is represented by this document. This Work Plan utilizes existing information gathered during the Preliminary Site Assessment for the Garden City Park Industrial Area to prepare a field investigation strategy. This Work Plan includes the following site-specific subplans:

- Sampling and Analysis Plan;
- Quality Assurance/Quality Control Plan; and
- Health and Safety Plan.

This document presents the detailed activities comprising the components of these PSAs, including sampling and analytical procedures, data validation and report preparation, and is prepared in accordance with all applicable NYSDEC Technical and Administrative Guidance Memoranda.

3.2.1.1 - Subcontractor Procurement

Conducted concurrently with the development of this Work Plan was the procurement of subcontractors for the PSAs. Subcontractors will be utilized to conduct the following activities:

- Groundwater and soil probe survey
- Laboratory sample analysis
- Data validation

3.2.2 Task B - Implementation of the Field Investigation

The second phase of the PSAs will consist of implementation of the field investigation. The field investigations will proceed in a phased approach in order to locate the source(s) of the documented groundwater contamination. The field investigation currently developed for the Sprague Goodman Electronics and Related Sites will include the following:

- Groundwater probe survey
- Groundwater sampling (Geoprobe)
- Subsurface soil sampling (Geoprobe)
- Groundwater sampling (monitoring well)
- Dry well sampling (if required)
- Air monitoring

Groundwater samples will be collected from groundwater probes and will be analyzed for select compounds, including vinyl chloride, chloroethane, trans-1,2-dichloroethene, cis-1,2-dichloroethene, tetrachloroethene, trichloroethene and 1,1,1-trichloroethane. Subsurface soil samples will be collected from soil probe locations in the vicinity of the potential sources of contamination to be identified in the field. The soil samples will also be analyzed for the select compounds described above. Waste water and sediment samples may also be collected from dry wells believed to be associated with potential sources of contamination.

Description of the sampling procedures, frequency and locations are described in detail in the Sampling and Analysis Plan in Section 5.0 of the Work Plan. A summary of the field investigation program is provided in Table 3-1.

3.2.3 Task C- Report Preparation

At the conclusion of the field investigation, a Preliminary Site Assessment Report will be prepared as a single document comprising the results for all of the sites. The report will present the information obtained during the scoping of the project and analytical data obtained from the field investigation.

The results of the groundwater analysis will be compared to NYSDEC Class GA Groundwater Standards dated October 1993.

Table 3-1

SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
(SPRAGUE GOODMAN ELECTRONICS, JOSEPH STRUHL COMPANY, PRECISION FABRICATORS AND MERCURY ELECTRIC SITES)
PRELIMINARY SITE ASSESSMENT
PROGRAM ELEMENTS

Program Element	Description	Number of Samples for Analysis
Geoprobe Survey	Approximately 33 groundwater probes will be installed in the vicinity of the four potential source facilities. Based upon the results of the initial 33 groundwater probes, ten additional probes will be installed to isolate/confirm potential sources.	
Soil Vapor Survey	Soil vapor will be screened with a PID/FID in the vicinity of suspected sources.	
Groundwater Geoprobe Sampling	One groundwater sample at the water table will be collected from each of the groundwater probe locations.	Each sample will be analyzed for select volatile organic compounds.* Approximately four samples will be analyzed for target compound list (TCL) + 10 volatile organic compounds.
Subsurface Soil Geoprobe Sampling	Approximately 12 subsurface soil samples will be collected from the locations indicating the highest levels from soil vapor or in the vicinity of groundwater contamination.	Each sample will be analyzed for select volatile organic compounds.* Approximately one sample will be analyzed for target compound list TCL +10 compounds.
Groundwater Monitoring Well Sampling	Provision will be made to sample two existing monitoring wells surrounding Precision Fabricators including PF-1 and PF-3. In addition existing monitoring wells GCP-1, GCP-2, GCP-3, GCP-4, and GCP-5 will also be sampled.	Each sample will be analyzed for select volatile organic compounds.* Approximately one sample will be analyzed for target compound list TCL +10 compounds.
Dry Well/Storm Drain Sampling	Provision will be made to sample eight dry wells or storm drains located at the facilities determined to be potential sources.	Each sample will be analyzed for select volatile organic compounds.*
Ambient Air Monitoring	Air monitoring for fugitive dusts and organic vapors will be conducted during all field activities.	

*Includes vinyl chloride, chloroethane, trans-1,2-dichloroethene, cis-1,2-dichloroethene, tetrachloroethene, trichloroethene and 1,1,1-trichloroethane.

4.0 PROJECT MANAGEMENT

4.1 Project Schedule and Key Milestones/Reports

The Project Schedule for the Sprague Goodman Electronics and Related Sites (Sprague Goodman Electronics, Joseph Struhl Company, Precision Fabricators and Mercury Electric) Preliminary Site Assessments is provided in Figure 4-1. Key milestones are identified in order to monitor work progress. Specific deadlines for completion of tasks and subtasks are established throughout the Project Schedule to ensure timely completion of work. The following is the list of milestones for this project:

Milestone 1: Submittal of the Draft Preliminary Site Assessment Work Plan, including the Sampling and Analysis Plan, Quality Assurance/Quality Control Plan, and Health and Safety Plan.

Milestone 2: Submittal of the Draft Preliminary Site Assessment Report.

4.2 Project Management, Organization and Key Technical Personnel

Dvirka and Bartilucci Consulting Engineers will be the prime consultant responsible for the Preliminary Site Assessments.

Firms which will be used as subcontractors for this project include:

- Field Safety Corporation (Health and Safety) (WBE)
- Laboratory Resources, Inc. (Analytical Laboratory)
- Nancy Potak (Data Validation) (WBE)
- Zebra Environmental, Inc. (Geoprobe Installation and Sampling)

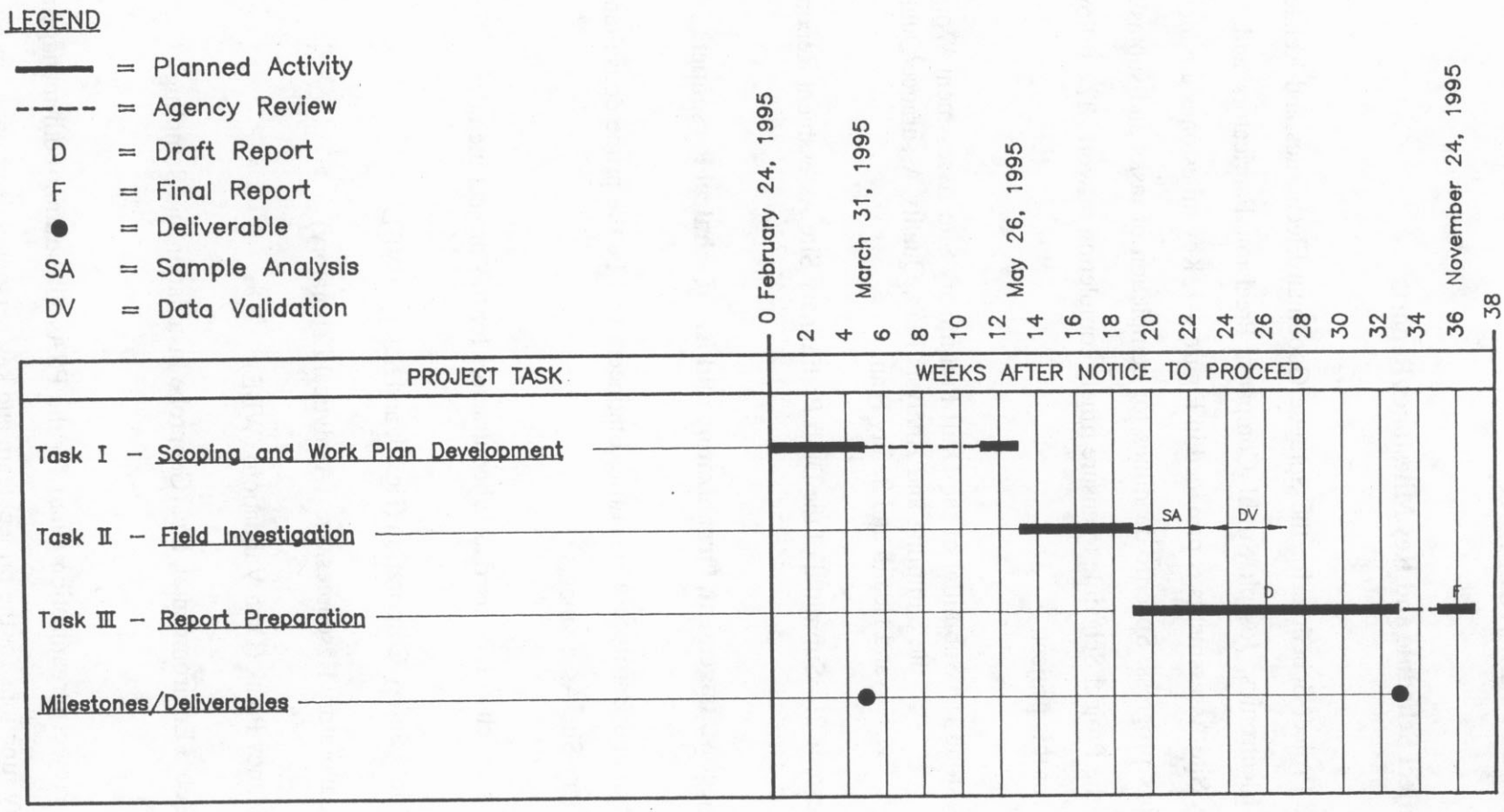
The Project Organization Chart for the PSAs, illustrating both management and project responsibility functions for the project team and key personnel, is provided in Figure 4-2.

FIGURE 4-1

PROJECT SCHEDULE

FOR

SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
PRELIMINARY SITE ASSESSMENTS



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Dvirka and Bartilucci
Consulting Engineers
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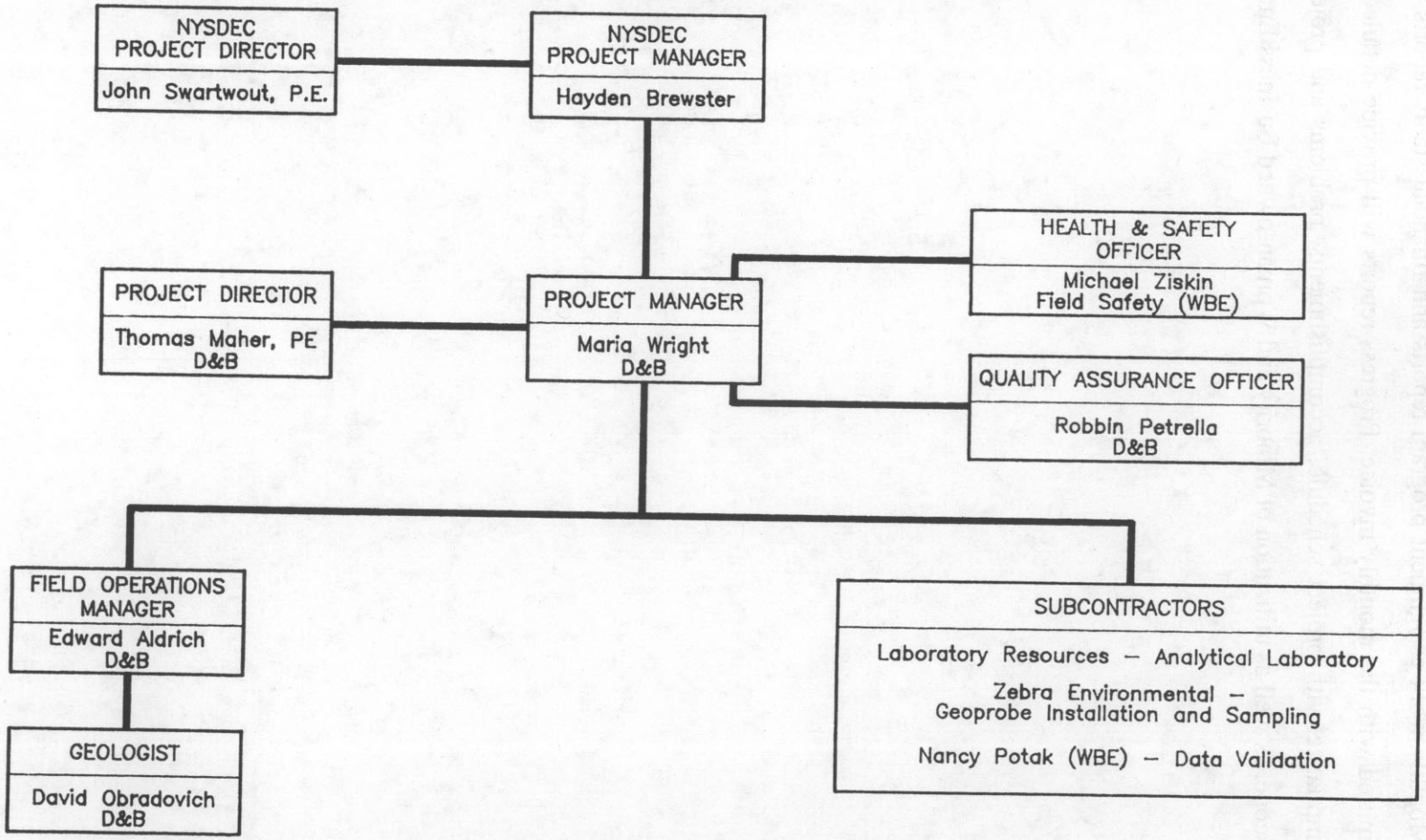
FIGURE 4–2

PROJECT TEAM ORGANIZATION CHART

FOR

SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES

PRELIMINARY SITE ASSESSMENTS



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Dvirka and Bartilucci
Consulting Engineers
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Monthly work assignment program reports and financial status reports will be prepared and submitted with the monthly invoice. Progress reports will provide detailed information by task, compliance with project schedule, accomplishments, problems and projected changes in project scope, as well as utilization of Minority and Woman-owned Business Enterprises.

5.0 SCHEDULE 2.11s

Schedule 2.11 (a)

Summary of Work Assignment Price

Work Assignment Number D002708-21

Sprague Goodman Electronics and Related Sites
(Sprague Goodman Electronics
Joseph Struhl Company
Precision Fabricators
Mercury Electric)

1.	Direct Salary Costs (Schedules 2.10 (a) and (b))	$35,294.28
2.	Indirect Costs (Schedule 2.10 (g))	$55,870.85
3.	Direct Non-Salary Costs (Schedule 2.10 (d), (e), (f) and 2.11 (c) (d))	$17,468.00

Subcontract Costs

Cost-Plus-Fixed-Fee Subcontracts (Schedule 2.10 (e) and 2.11(e))

Name of Subcontractor	Services To Be Performed	Subcontract Price
A.		
4. Total Cost-Plus-Fixed-Fee Subcontracts		$0.00

Unit Price Subcontracts (Schedule 2.10(f) and 2.11(f))

Name of Subcontractor	Services To Be Performed	Subcontract Price
A. Zebra Environmental	Geoprobe Sampling	$28,823.00
B. Laboratory Resources Inc.	Analytical Sample Analysis (Monitoring Wells)	$1,300.50
B. Nytest Environmental Inc.	Analytical Sample Analysis (Geoprobes)	$13,384.00
C. Nancy Potak	Data Validation	$3,775.00
D. Field Safety Corporation	Health and Safety	$0.00
5. Total Unit Price Subcontracts		$47,282.50
6. Subcontract Management Fee		$1,477.25

7.	Total Subcontract Costs (lines 4 + 5)	$48,759.75
8.	Fixed Fee (Schedule 2.10 (h))	$7,657.87
	Total Work Assignment Price (lines 1 + 2 + 3 + 6 + 7)	$165,050.74

Engineer/Contract #: Dvirka & Bartilucci/D002708

Schedule 2.11 (b)
Direct Labor Hours Budgeted

Date Prepared: 05/16/95

Project Name: Sprague Goodman Electronics and Related Sites
(Sprague Goodman Electronics, Joseph Struhl Co., Precision Fabricators, Mercury Electric)

Work Assignment No.: D002708-21

Labor Classification	P	SG/SS/AT	AE	JS/AA/WP/JD	Total No. of Direct Labor Hrs. Budgeted
as of July 1,1994	$46.13	$25.43	$21.47	$16.92	
as of July 1,1995	$48.90	$26.95	$22.76	$17.94	
NSPE Level	IX	V	IV	II	
Task 1	14	143	82	154	393
Task 2	14	143	82	154	393
Task 3	14	143	82	154	393
Task 4	14	143	82	154	393
Total Hours 1994	40	432	168	384	1024
Total Hours 1995	16	140	160	232	548
Subtotal 1994	$1,845	$10,986	$3,607	$6,497	$22,935
Subtotal 1995	$782	$3,773	$3,642	$4,162	$12,359
Total	$2,628	$14,759	$7,249	$10,659	$35,294

Labor Classification Key:

Principal	P	Associate Technician	AT	Word Processor	WP
Senior Geologist	SG	Assistant Engineer	AE	Administrative Assistant	AA
Senior Scientist	SS	Drafter	D	Junior Scientist	JS

Engineer/Contract #: Dvirka & Bartilucci/D002708

Date Prepared: 05/16/95

Project Name: Sprague Goodman Electronics and Related Sites
(Sprague Goodman Electronics, Joseph Struhl Co., Precision Fabricators, Mercury Electric)

Schedule 2.11 (b-1)

Direct Labor Hours Budgeted

Work Assignment No.: D002708-21

NSPE Labor Classification / NSPE Level	IX	VII	V	IV	III	II	Total No. of Direct Administrative Labor Hrs. Budgeted
Task 1	0	0	0	0	0	12	12
Task 2	0	0	0	0	0	12	12
Task 3	0	0	0	0	0	12	12
Task 3	0	0	0	0	0	12	12
Total Hours	0	0	0	0	0	48	48

Contract/Project administrative hours would include, but not necessarily be limited to the following activities:

1. Work Plan development
2. Review work assignment progress
3. Review work assignment costs
4. CAP preparation
5. Manage subcontracts
6. Implement and manage program management and staffing plans
7. Conduct health and safety reviews
8. Word processing and graphics
9. Report editing

Schedule 2.11 (c)
Direct Non-Salary Costs
Work Assignment Number D002708-21

Item	Reimbursement* Rate	Est. No. of Units (Task 1)	Total Cost (Task 1)	Est. No. of Units (Task 2)	Total Cost (Task 2)	Est. No. of Units (Task 3)	Total Cost (Task 3)	Est. No. of Units (Task 4)	Total Cost (Task 4)	Total Estimated No. of Units	Total Estimated Cost
A. Miscellaneous (Travel)											
1. Hotel	$70.00 /night	0.5	$35.00	0.5	$35.00	0.5	$35.00	0.5	$35.00	2	$140.00
2. Meals	$34.00 /day	0.5	$17.00	0.5	$17.00	0.5	$17.00	0.5	$17.00	2	$68.00
3. Transportation (Personal Car)	$0.30 /mile	150	$45.00	150	$45.00	150	$45.00	150	$45.00	600	$180.00
4. Van Rental	$325.00 /week	1.5	$487.50	1.5	$487.50	1.5	$487.50	1.5	$487.50	6	$1,950.00
5. Gas	$50.00 /week	1.5	$75.00	1.5	$75.00	1.5	$75.00	1.5	$75.00	6	$300.00
Subtotal (Travel)			$659.50		$659.50		$659.50		$659.50		$2,638.00
B. Miscellaneous (Expenses)											
1. Outside Services**	$200.00 /set	0.5	$100.00	0.5	$100.00	0.5	$100.00	0.5	$100.00	2	$400.00
2. Express Mail	$40.00 /package	4	$160.00	4	$160.00	4	$160.00	4	$160.00	16	$640.00
Subtotal (Misc. Expenses)			$260.00		$260.00		$260.00		$260.00		$1,040.00
C. Personal Protective Equipment											
1. Level D Safety Equipment	$14.00 ($/person/day)	15	$210.00	15	$210.00	15	$210.00	15	$210.00	60	$840.00
2. Level C Safety Equipment	$40.00 ($/person/day)	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
3. Level B Safety Equipment	$50.00 ($/person/day)	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
Subtotal (Protective Equipment)			$210.00		$210.00		$210.00		$210.00		$840.00
TOTAL			$1,129.50		$1,129.50		$1,129.50		$1,129.50		$4,518.00

Footnote:

In-house costs for computer services, postage, reproduction, printing, and telephone are not allowable as direct non-salary costs. These costs should be included in the indirect cost pool used to determine the indirect cost percentage for the engineer.

* See Schedule 2.10(b) for rates.

** Includes photo finishing, slides, aerial photograph reproduction and any other costs not associated with in-house capabilities.

Schedule 2.11 (d) 1

Equipment Purchased Under the Contract

Work Assignment No. D002708-21

Item	Estimated Purchase Price	No. of Units	O & M Rate * (per month)	Term of Usage (months)	Estimate Usage Cost (Col. 2 + (3x4))

*Will be invoiced at actual costs for operation and maintenance including calibration gases, probe repair and factory maintenance.

Total $0.00

Schedule 2.11 (d) 2

Maximum Reimbursement Rates for Consultant/Subconsultant - Owned Equipment

Work Assignment No. D002708-21

Item	Usage Rate* ($/day)	Estimated Usage (days)	Estimate Usage Cost (Col. 2 + (3x4))
		Total	$0.00

*Usage Rate = Capital Recovery Rate + O&M rate

The maximum usage rate for an item of equipment reverts to the O&M rate when the total usage reimbursement exceed 85% of the purchase price.

Schedule 2.11 (d) 3

Maximum Reimbursement Rates for Vendor - Rented Equipment

Work Assignment No. D002708-21

	Item	Maximum Reimbursement Rate* ($/day)	Maximum Reimbursement Rate* ($/week)	Maximum Reimbursement Rate* ($/month)	Estimated Usage (days)	Estimate Usage Cost (Col. 2 + (3x4))
1.	Century OVA 128	$125.00	$350.00	$870.00	30	$3,750.00
2.	Photovac Microtip	$125.00	$350.00	$760.00	30	$3,750.00
3.	MIE Miniram Digital Dust Indicator	$85.00	$150.00	$460.00	30	$2,550.00
4.	Horiba 190 Water Quality Checker	$55.00	$195.00	$542.00	30	$1,650.00
5.	Solinst Water Level Indicator	$25.00	$65.00	$220.00	30	$750.00
					Total	$12,450.00

*Reimbursement will be paid at the Maximum Reimbursement rate or the actual rate.

Schedule 2.11 (d) 4

Expendable Supplies

Work Assignment No. D002708-21

Item	Estimated Quantity	Units	Unit Cost*	Total Budget Cost (Col. 2 x 3)
			Total	$0.00

*Estimated

Schedule 2.11 (d) 5

Consumable Supplies Supplies

Work Assignment No. D002708-21

	Item	Estimated Quantity	Units	Unit Cost	Total Budgeted Cost (Col. 2 x 3)
1.	Miscellaneous				$500.00
2.					
3.					
				Total	$500.00

*Reimbursement will be paid at the Maximum Reimbursement rate or the actual rate.

SCHEDULE 2.11 (f) 1
MAXIMUM REIMBURSEMENT RATES FOR
UNIT PRICE SUBCONTRACTS
SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
Work Assignment No. D002708-21

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE
Laboratory Resources, Inc.	Chemical Sample Analysis	$1,300.50

Item	Method	Quantity	Rate	Total Price
Groundwater				
Chlorinated Vocs	601	7	$136.50 /sample*	$955.50
Volatile Organics	91-1	1	$135.00 /sample	$135.00
QA/QC Samples				
Groundwater				
Matrix Spike				
Chlorinated Vocs	601	1	$70.00 /sample	$70.00
Matrix Spike Duplicate				
Chlorinated Vocs	601	1	$70.00 /sample	$70.00
Matrix Spike Blank				
Chlorinated Vocs	601	1	$70.00 /sample	$70.00
Trip Blanks	601	2	$70.00 /sample	$140.00
			Billable at cost	$100.00

*Cost for sample analysis based upon 24-hour turnaround

SUBTOTAL $1,300.50

SCHEDULE 2.11 (f) 2
MAXIMUM REIMBURSEMENT RATES FOR
UNIT PRICE SUBCONTRACTS
SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
Work Assignment No. D002708-21

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE
Nytest Environmental Inc.	Chemical Sample Analysis	$13,852.44

Item	Method	Quantity	Rate	Total Price
Groundwater				
Chlorinated Vocs	601	48	$148.00 /sample*	$7,104.00
Volatile Organics	91-1	4	$170.00 /sample	$680.00
Subsurface soil				
Chlorinated Vocs	8010	20	$148.00 /sample*	$2,960.00
Volatile Organics	91-1	2	$170.00 /sample	$340.00
QA/QC Samples				
Groundwater				
Matrix Spike				
Chlorinated Vocs	601	2	$80.00 /sample	$160.00
Volatile Organics	91-1	1	$170.00 /sample	$170.00
Matrix Spike Duplicate				
Chlorinated Vocs	601	2	$80.00 /sample	$160.00
Volatile Organics	91-1	1	$170.00 /sample	$170.00
Matrix Spike Blank				
Chlorinated Vocs	601	2	$80.00 /sample	$160.00
Volatile Organics	91-1	1	$170.00 /sample	$170.00
Trip Blanks	601	7	$80.00 /sample	$560.00
Soil				
Matrix Spike				
Chlorinated Vocs	8010	1	$80.00 /sample	$80.00
Volatile Organics	91-1	1	$170.00 /sample	$170.00
Matrix Spike Duplicate				
Chlorinated Vocs	8010	1	$80.00 /sample	$80.00
Volatile Organics	91-1	1	$170.00 /sample	$170.00
Matrix Spike Blank				
Chlorinated Vocs	8010	1	$80.00 /sample	$80.00
Volatile Organics	91-1	1	$170.00 /sample	$170.00

*Cost for sample analysis based upon 24-hour turnaround

SUBTOTAL	$13,384.00
Subcontract Management Fee	$468.44

SCHEDULE 2.11 (f) 3
MAXIMUM REIMBURSEMENT RATES FOR
UNIT PRICE SUBCONTRACTS
SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
Work Assignment No. D002708-21

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED		SUBCONTRACT PRICE	
Nancy Potak	Data Validation		$3,775.00	
Item	Quantity	Rate		Total Price
Groundwater				
Chlorinated Vocs	601	55	$30.00 /sample	$1,650.00
Volatile Organics	91-1	5	$25.00 /sample	$125.00
Subsurface soil				
Chlorinated Vocs	8010	20	$25.00 /sample	$500.00
Volatile Organics	91-1	2	$30.00 /sample	$60.00
QA/QC Samples				
Groundwater				
Matrix Spike				
Vocs	601	3	$30.00 /sample	$90.00
Volatile Organics	91-1	5	$25.00 /sample	$125.00
Matrix Spike Duplicate				
Vocs	601	3	$30.00 /sample	$90.00
Volatile Organics	91-1	5	$25.00 /sample	$125.00
Matrix Spike Blank				
Vocs	601	3	$30.00 /sample	$90.00
Volatile Organics	91-1	5	$25.00 /sample	$125.00
Soil				
Matrix Spike				
Vocs	8010	1	$25.00 /sample	$25.00
Volatile Organics	91-1	5	$30.00 /sample	$150.00
Matrix Spike Duplicate				
Vocs	8010	1	$25.00 /sample	$25.00
Volatile Organics	91-1	5	$30.00 /sample	$150.00
Matrix Spike Blank				
Vocs	8010	1	$25.00 /sample	$25.00
Volatile Organics	91-1	5	$30.00 /sample	$150.00
Trip Blanks				
Vocs	601	9	$30.00 /sample	$270.00

SCHEDULE 2.11 (f) 4
MAXIMUM REIMBURSEMENT RATES FOR
UNIT PRICE SUBCONTRACTS
SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
Work Assignment No. D002708-21

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE
Zebra Environmental	Geoprobe Sampling	$29,831.81

	Item	Quantity	Rate	Total Price
1	Mobilization and Demobilization, Including, Site Set Up and Installation of a Temporary Decontamination Pad.	1 Lump Sum	$900.00	$900.00
2	Geoprobe System or Equivalent with 2 man Crew, includes 8 hours of On-site work	21 Days	$1,075.00	$22,575.00
3	Overtime Charge for On-site Work in Excess of 8 hours	15 Hours	$175.00	$2,625.00
4	Probe Sampling			
	a. Groundwater Samples	43 Samples	$19.00	$817.00
	b. Soil samples	12 Samples	$27.00	$324.00
	c. Soil gas samples	0 Samples	$19.00	$0.00
5	Portland Cement (Type I or II)	5 Bags	$9.00	$45.00
6	Bentonite Powder	5 Bags	$32.00	$160.00
7	Bentonite Pellets	1 Bags	$32.00	$32.00
8	Standby time	10 Hours	$80.00	$800.00
9	Site Restoration			
	a. Cleanfill	20 Cu Ft	$9.00	$180.00
	b. Grass Seeding	5 Sq Ft	$1.00	$5.00
	c. Asphalt	20 Cu Ft	$9.00	$180.00
	d. Concrete	20 Cu Ft	$9.00	$180.00
	SUBTOTAL			$28,823.00
	SUBCONTRACT MANAGEMENT FEE			$1,008.81
	TOTAL			$29,831.81

Engineer/Contract #: Dvirka & Bartilucci/D002708

Scedule 2.11 (h)
Monthly Cost Control Report
Summary of Labor Hours

Date Prepared: 05/16/95

Project Name: Sprague Goodman Electronics and Related Sites
(Sprague Goodman Electronics, Joseph Struhl Co.,
Precision Fabricators, Mercury Electric)

Work Assignment No.: D002708-21

Labor Classification	P(PD)	SG/SS/AT	AE	JS/AA/WP/JD	Total No. Labor Hrs.
as of July 1, 1994	$46.13	$25.43	$21.47	$16.92	
as of July 1, 1995	$48.90	$26.95	$22.76	$17.94	
NSPE Level	IX	V	IV	II	
Task 1	0/ 14	0/ 143	0/ 82	0/ 154	0/ 393
Task 2	0/ 14	0/ 143	0/ 82	0/ 154	0/ 393
Task 3	0/ 14	0/ 143	0/ 82	0/ 154	0/ 393
Task 4	0/ 14	0/ 143	0/ 82	0/ 154	0/ 393
Total Hours 1994	0/ 40	0/ 432	0/ 168	0/ 384	0/ 1024
Total Hours 1995	0/ 16	0/ 140	0/ 160	0/ 232	0/ 548
Subtotal 1994	$1,845	$10,986	$3,607	$6,497	$22,935
Subtotal 1995	$782	$3,773	$3,642	$4,162	$12,359
Total	$2,628	$14,759	$7,249	$10,659	$35,294

Labor Classification Key:

Principal	P	Senior Scientist	SS	Junior Scientist	JS
Project Director	PD	Associate Technician	AT	Word Processor	WP
Senior Geologist	SG	Administrative Assistant	AA		

Engineer: Dvirka & Bartilucci
Contract No.: D002708
Project Name: Sprague Goodman Electronics and Related Sites
Work Assignment No.: D002708-21
Task No./Name: All Tasks
Complete: 0.00%

SCHEDULE 2.11 (g)
MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Date Prepared:
Billing Period:
Invoice No.:

	A Costs Claimed This Period	B Paid To Date	B1 Disallowances Recorded This Month	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E F-D Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35,294.28	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55,870.85	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91,165.13	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,638.00	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14,830.00	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17,468.00	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48,759.75	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	157,392.87	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7,657.87	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	0.00	165,050.74	0.00

Project Manager (Engineer) _____

Date _____

Engineer: Dvirka & Bartilucci
Contract No.: D002708
Project Name: Sprague Goodman Electronics and Related Sites
Work Assignment No.: D002708-21

SCHEDULE 2.11(g) SUPPLEMENTAL
MONTHLY COST CONTROL REPORT
SUBCONTRACTS

Date Prepared:
Billing Period:
Invoice No.:

Subcontract Name	Subcontract Costs Claimed this Application Incl. Resubmittals	Subcontract Costs Approved for Payment on Previous Application	Total Subcontract Costs to Date (A plus B)	Subcontract Approved Budget	Management Fee Budget	Management Fee Paid	Total Costs to Date
1 . Field Safety Corporation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. Laboratory Resources, Inc.	0.00	0.00	0.00	1300.50	0.00	0.00	0.00
3. Nytest Environmental	0.00	0.00	0.00	13384.00	468.44	0.00	0.00
4. Nancy Potak	0.00	0.00	0.00	3775.00	0.00	0.00	0.00
5. Zebra Environmental Inc.	0.00	0.00	0.00	28823.00	1,008.81	0.00	0.00
Total				47282.50	1477.25		

Engineer: Dvirka & Bartilucci
Contract No.: D002708
Project Name: Sprague Goodman Electronics and Related Sites
Work Assignment No.: D002708-21
Task No./Name: 1/ Sprague Goodman Electronics
Complete: 0.00%

Date Prepared:
Billing Period:
Invoice No.:

SCHEDULE 2.11 (g)
MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

	A Costs Claimed This Period	B Paid To Date	B1 Disallowances Recorded This Month	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E F-D Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,823.57	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13,967.71	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22,791.28	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	659.50	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,707.50	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,367.00	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12,189.94	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39,348.22	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,914.47	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41,262.69	0.00

Project Manager (Engineer) _____

Date _____

Engineer: Dvirka & Bartilucci
Contract No.: D002708
Project Name: Sprague Goodman Electronics and Related Sites
Work Assignment No.: D002708-21
Task No./Name: 2/Joseph Struhl Company
Complete: 0.00%

SCHEDULE 2.11(g)
MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Date Prepared:
Billing Period:
Invoice No.:

	A Costs Claimed This Period	B Paid To Date	B1 Disallowances Recorded This Month	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E F-D Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,823.57	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13,967.71	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22,791.28	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	659.50	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,707.50	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,367.00	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12,189.94	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39,348.22	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,914.47	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41,262.69	0.00

Project Manager (Engineer) _____ Date _____

Engineer: Dvirka & Bartilucci
Contract No.: D002708
Project Name: Sprague Goodman Electronics and Related Sites
Work Assignment No.: D002708-21
Task No./Name: 3/Precision Fabricators
Complete: 0.00%

Date Prepared:
Billing Period:
Invoice No.:

SCHEDULE 2.11(g)
MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

	A	B	B1	C	D	E	F	G	H
	Costs Claimed This Period	Paid To Date	Disallowances Recorded This Month	Total Disallowed To Date	Total Costs Incurred To Date (A+B+B1)	F-D Estimated Costs To Completion	Total Work Assignment Price (A+B+E)	Approved Budget	Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,823.57	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13,967.71	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22,791.28	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	659.50	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,707.50	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,367.00	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12,189.94	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39,348.22	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,914.47	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41,262.69	0.00

Project Manager (Engineer) _____ Date _____

Engineer: Dvirka & Bartilucci
Contract No.: D002708
Project Name: Sprague Goodman Electronics and Related Sites
Work Assignment No.: D002708-21
Task No./Name: 4/Mercury Electric
Complete: 0.00%

Date Prepared:
Billing Period:
Invoice No.:

SCHEDULE 2.11(g)
MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

	A	B	B1	C	D	E	F	G	H
	Costs Claimed This Period	Paid To Date	Disallowances Recorded This Month	Total Disallowed To Date	Total Costs Incurred To Date (A+B+B1)	F-D Estimated Costs To Completion	Total Work Assignment Price (A+B+E)	Approved Budget	Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,823.57	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13,967.71	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22,791.28	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	659.50	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,707.50	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,367.00	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12,189.94	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39,348.22	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,914.47	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41,262.69	0.00

Project Manager (Engineer) _____ Date _____

MBE/WBE
UTILIZATION PLAN
SPRAGUE GOODMAN ELECTRONICS AND RELATED SITES
Work Assignment No. D002708-21

Areas to be Subcontracted	Subcontractor Name	MBE/WBE	Total Subcontract Value	% MBE/WBE Utilization
1. Data Validation	Nancy Potak	WBE	$3,505.00	2.2%
2. Field Safety Corporation	Health and Safety	WBE	$0.00	0.0%
Total MBE Utilization	MBE Subcontract Value / Total Contract Value	=	$0 / $162,770	0.0%
Total WBE Utilization	WBE Subcontract Value / Total Contract Value	=	$3,505 / $162,770	2.2%