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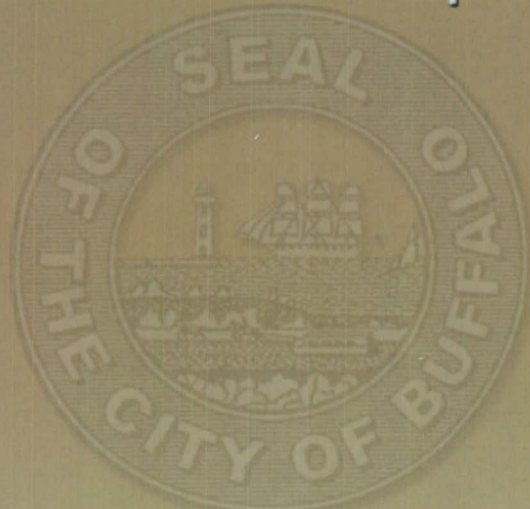
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Project Site numbers will be proceeded by the following:

- Municipal Brownfields - B
- Superfund - HW
- Spills - SP
- ERP - E
- VCP - V
- BCP - C

*Technical Proposal*

Boone Park  
Site Investigation,  
Interim Remedial Measure,  
and Remedial Alternatives Report



Department of Public Works, Parks, & Streets  
City of Buffalo, New York



ENGINEERS  
DESIGN BUILD  
TECHNICAL RESOURCES  
OPERATIONS

June 2003



ENGINEERS  
DESIGN BUILD  
TECHNICAL RESOURCES  
OPERATIONS

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June 19, 2003

Mr. Joseph N. Giambra  
Commissioner of Public Works, Parks & Streets  
Room 501 City Hall  
65 Niagara Square  
Buffalo, New York 14202-3373

RE: Boone Park Proposal  
Site Investigation, Interim Remedial Measure, and Remedial Alternatives Report

Dear Mr. Giambra:

C&S is pleased to provide this proposal to City of Buffalo for the Boone Park Brownfield Project. The team we have assembled for this project understands the issues involved with site investigations and redevelopment. These people were chosen based not only on their relevant technical experience with other projects, but on their experienced insight into the regulatory and administrative framework of the Brownfields program which will provide you with a successful project.

The key to top value Brownfield investigation and remediation projects includes a simple approach with close communications between the city, the consultant, and the involved regulatory agencies. More than ever, regulators are willing to look at ways of extending public funding dollars. A consultant with good past experience and an open line of communication with the agencies involved can negotiate scoping issues that result in no loss of integrity to the project, yet savings in time and costs associated with the effort. Mutual trust, honest communications, and technical competence will lead to a successful project. We are eager to demonstrate these capabilities to the City of Buffalo.

In reviewing our qualifications, please note our selection as General Brownfields Consultant for the City of Syracuse and for the Town of Clay Maider Road project. These projects have given us valuable insight into program requirements that can be of great benefit to the City.

The process does not have to be lengthy and expensive. By proactively implementing a focused approach, significant savings can be achieved while maintaining a high quality program. Through the use of preliminary scoping, interim submittals, proactive community outreach activities, and informal regulatory agency reviews, we can maintain an expedited schedule that will allow for a prompt and cost-effective project.

Mr. Joseph N. Giambra, Commissioner  
June 19, 2003  
Page 2



Thank you for this opportunity to provide services to the City of Buffalo. We are available to discuss our capabilities and approach with you to tailor this project to meet your needs. We look forward to meeting with you to discuss this project further.

Very truly yours,

C&S DESIGN BUILD, INC.

A handwritten signature in black ink that reads 'John D. Trimble'.

John D. Trimble, P.E.  
Industrial Services Group Manager

JDT/lp  
Enclosure

# Table of Contents

Section 1  
**Project Understanding and Approach**

Section 2  
**Qualifications and Experience**

Section 3  
**Management and Staffing**

Section 4  
**RFP Information**

Appendix A  
**Resumes of Key Personnel**

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## Section 1

# Project Understanding and Approach

The City of Buffalo issued a Request for Proposals (RFP) to conduct a Site Investigation (SI) and Interim Remedial Measure (IRM), and to develop a Remedial Alternative Report (RAR) for a park within the City. The park, located at 353 Germania Street in the South Buffalo area, is known as Boone Park.

C&S Design-Build, Inc. provides this proposal in response to that RFP. The following sections describe our understanding of the project, our proposed scope of work, our experience and qualifications, and our proposed project team. A separate document includes our cost proposal. For the investigation portion of the project, C&S Design-Build would utilize the services of C&S Engineers, one of the four affiliates of C&S Companies.

## Site Description and Background

Boone Park is located in a residential area and has been a park since the early 1950's. In 1999 and 2001, sampling was conducted in the Park as part of other environmental studies in the South Buffalo area. The results of those studies showed elevated arsenic levels in surface and subsurface soils, and the park was closed.

The City has been awarded a Brownfield State Assistance Contract by the New York State Department of Environmental Conservation (NYSDEC) to conduct additional site investigation work. The NYSDEC and the City have agreed on an approach that could allow the Park to be reopened in the spring of 2004.

## Proposed Scope of Work

As requested in the RFP, C&S proposes to conduct the work in Six Tasks, as follows:

Task I	Scoping of the SI and Development of Alternatives
Task II	Site Characterization
Task III	Implementation of Interim Remedial Measure
Task IV	Development of Alternatives
Task V	Remedial Alternatives Report and Proposed Remedial Action
Task VI	Record of Decision

Additional detail on each Task is provided below. All work will be performed consistent with NYSDEC requirements, protocols, and guidance. In particular, the work will be performed consistent with NYSDEC Division of Environmental Remediation Program Policy DER-97-4058 (formerly TAGM 4058), *Environmental Restoration Projects (Brownfields)*.

## Task I - Scoping of the SI and Development of Alternatives

The purpose of the SI is to determine the nature and extent of contamination at Boone Park and to gather additional data necessary to support the selection of remedial alternatives for the site. As part of this task, C&S will also begin the development of potential remedial alternatives. As indicated in Task I, Subtask B of the RFP, a Phase I Environmental Site Assessment (ESA) will also be conducted.

*Cost-effective investigation, restoration, and reuse of contaminated sites begins with experienced foresight and planning.*

Also as part of this task, C&S suggests that a discussion be initiated among the City, the consultant, the NYSDEC, and the New York State Department of Health (NYSDOH) regarding acceptable cleanup levels for arsenic. Since a significant amount of data is already available and the intended use of the property is known, agreement should be reached on the targeted cleanup levels for arsenic for both surface and subsurface soils. This would allow for a more focused allocation of resources to meet the project objective. In addition, during that discussion, C&S would present a conceptual outline of the planned field investigation activities. This would allow for State agency input prior to extensive development of work plans. C&S has utilized this approach on other Brownfield projects and we believe that it will both expedite the schedule by reducing review/revision time and reduce overall costs by getting "buy in" at an early stage from the State.

**Subtask I-A** - C&S will assemble and evaluate available data for the Park and use that data to develop a list of remedial goals. In addition, we will identify the decisions needed to obtain the goals and the data needed to make those decisions. This will be presented to the City along with a project schedule.

**Subtask I-B** - We will develop an SI work plan that will include the following plans for this project. Details concerning the activities to be included in the work plan are included in Task II, Subtask II-A below:

- Field Sampling Plan
- Quality Assurance / Quality Control Plan
- Health and Safety Plan
- Citizen Participation Plan

*Agreement should be sought up front on target cleanup levels to allow for a more focused allocation of resources.*

These plans will meet the requirements specified in the RFP and will be developed consistent with NYSDEC requirements and practice.

## Task II - Site Characterization

The objective of Task II is to characterize the site to allow for successful remediation of the property.



**Subtask II-A** – The field investigation portion of the project will involve sampling of soil and groundwater at the site. This will be performed to accomplish the following goals as indicated in the RFP and Attachment 1 to DER-97-4058:

1. Identify and characterize the potential sources of contamination.
2. Describe the amount, concentration, persistence, mobility, form, and other significant characteristics of contamination.
3. Define hydrogeologic factors.
4. Identify potential routes of exposure.
5. Identify populations and environmental receptors at risk
6. Describe the potential for substance to migrate off-site.
7. Evaluate the extent to which barriers may contain the contamination.
8. Identify surface water classifications.
9. Describe groundwater characteristics and usage.
10. Identify private wells in the area.

To meet these goals, we propose to conduct the following activities:

- Phase I ESA – C&S will perform an ASTM Phase I Environmental Site Assessment consistent with ASTM *Standard Practice for Environmental Site Assessments – Phase I Environmental Site Assessment Process* (ASTM E1527-00)
- Groundwater – Four groundwater monitoring wells will be installed to a depth of 20 feet below grade. Subsequent to installation, the wells will be developed and then sampled. Analysis of the samples will be for the Superfund Target Compound List (TCL) of parameters consistent with the NYSDEC Analytical Services Protocol (ASP), June 2000 version. At least one of the wells will be in a location that is expected to be upgradient of the other wells.
- Subsurface Soil – Two soil borings will be conducted in the area of the basketball court. The borings, which will go to a depth of approximately 20 feet, will be conducted to obtain subsurface soil samples. One sample will be collected from each boring to be analyzed for the TCL list of parameters. Analysis will be consistent with the June 2000 version of the NYSDEC ASP.
- Surface soils – At least ten surface soil samples will be collected in the Park. Samples will be collected from the top 0 to 2 inches of soil in locations needed to supplement existing data and to define the extent of arsenic contamination. Samples will be analyzed for total arsenic levels by methods in the NYSDEC ASP.
- Site survey – A surveyed base map identifying sample locations for groundwater and soil will be prepared. We have assumed that a map showing historic sampling locations can be provided in an electronic format.

All sample analysis will be performed by an NYSDOH ELAP-approved laboratory. Analytical methodologies will be consistent with the NYSDEC ASP, June 2000 version. Report deliverables will be consistent with the ASP Subcategory B deliverables. C&S will have a NYSDEC-approved third party data validator prepare a Data Usability Summary Report.

**Subtask II-B** – Utilizing the data generated in Subtask I-A above, C&S will identify potentially feasible remedial alternatives consistent with the project objective. Once those alternatives are identified, C&S will determine if any additional site investigation tasks are necessary, and if so, provide a recommendation to the City. Subsequent to the City's approval, C&S will modify the work plan and supporting plans as necessary and then conduct the work.

**Subtask II-C** – During this Subtask, C&S will identify probable remedial goals for the site. In addition, we will determine which goals have been met and which goals will need remedial actions.

**Subtask II-D** – If necessary, C&S will perform a qualitative Health and Environmental Risk Assessment for the site. For the purposes of this proposal, we have assumed that this will be in the form of a Qualitative Exposure Assessment consistent with current NYSDOH guidance on risk assessments for brownfield sites.

**Subtask II-E** – C&S will develop draft a Site Investigation Report consistent with the SI report format given in Appendix D of the RFP. The draft report will be submitted to the City for review and, subsequent to any revisions, will be submitted in draft form to the NYSDEC for review. Included in that report will be an initial review of potential remedial alternatives and their applicability to an IRM involving shallow soil removal.

### **Task III – Implementation of an Interim Remedial Measure**

If during Subtask II-E above it is determined that an IRM would be appropriate at the Boone Park Site, C&S will develop a work plan for implementation of the IRM. Included in that IRM would be procedures for C&S to solicit bids and procure subcontractor services for implementation of the IRM.

For the purpose of this proposal, it has been assumed that the IRM will consist of the excavation, transportation, and offsite disposal of 4,000 cubic yards of surface soil from the Park. The IRM is also assumed to include restoration of the site to its current condition as a community park with two baseball diamonds.

### **Task IV – Development of Alternatives**

**Subtask IV-A** – C&S will develop a list of potential remedial action alternatives consistent with the procedure given in NYSDEC DER-97-4058, Attachment 1. This will be accomplished by:

- Identifying general response action technologies.

- Evaluating general response actions for effectiveness, reliability, implementability, and cost.
- Assembling suitable treatment general response actions into alternative remedial actions.

**Subtask IV-B** - C&S will conduct a detailed evaluation on the alternatives consistent with the procedures described in DER-97-4058. As required by the NYSDEC, that evaluation will include consideration of the factors identified in 6 NYCRR 375-1.10(c)(1-7). The evaluation will utilize the criteria detailed in the RFP and DER-97-4058.

## **Task V – Remedial Alternatives Report and Proposed Remedial Action Plan**

C&S will prepare a Remedial Alternatives report consistent with the RA report format given in Appendix D of the RFP. The draft report will be submitted to the City for review and, subsequent to any revisions, will be submitted in draft form to the NYSDEC for review.

## **Task VI – Record of Decision**

C&S will assist the City and Department on an as-needed basis in the development of the Record of Decision for the project.



## Section 2

# Qualifications and Experience

Successful completion of site investigation and remediation projects requires not only a good working knowledge of New York State's hazardous waste site and brownfields programs, but also an understanding of the "big picture" in terms of potential ultimate site uses. We have included our relevant project experience as a firm on site investigation/brownfields projects. Note that C&S Engineers, Inc., is included on the NYSDEC's Qualified Remedial Consultants list.

**General Brownfields Consultant, City of Syracuse** - C&S was selected as one of two general Brownfields consultants for the City of Syracuse. This selection was qualifications based and was awarded based on our relevant experience. The USEPA awarded the City of Syracuse a Brownfields Pilot in May 2000.

Syracuse was also selected to receive additional funding for assessments at Brownfields properties to be used for greenspace purposes. Syracuse covers approximately 26 square miles and has a population of 152,215. According to the 1990 census, more than 50 percent of the households are low-income and 25 percent are minorities. The objective of the City's brownfields redevelopment program is to develop a holistic, sustainable approach to cleaning up and redeveloping brownfields. This plan will use and expand the city's existing community development programs, such as Tomorrow's Neighborhoods Today. With the Pilot's assistance, this plan seeks to reverse the negative impacts often associated with brownfields—increased crime, health concerns, reduced property values and tax base, fewer job opportunities—into opportunities for social and economic revitalization. In addition, the Pilot used greenspace funding to carry out site assessments and characterizations at two brownfields in the Southern Creekwalk Zone, a 3.5-mile corridor along Onondaga Creek south of downtown and part of the city's redevelopment plan. This portion of the planned multi-use recreational trail system traverses several brownfields in many of the city's poorest neighborhoods.



**Sims Matchplate Site** - As our initial assignment under the City of Syracuse General Brownfields Contract, C&S was retained by the City to conduct a Brownfields investigation at the Sims Matchplate manufacturing plant. This abandoned factory had previously been used for the manufacture of high precision castings for the aerospace industry. The property was also the site of a former gasoline service station. Initially, C&S provided support to the City in acquiring funding through the State Brownfields program. C&S then developed a work plan for a site investigation (SI), secured bids from subcontractors, and conducted the SI. The SI consisted of a subsurface boring program; installation of monitoring wells; excavation of test pits; and sampling of soil, groundwater, and sewers.





Subsequent to the finding of high levels of contamination in the groundwater, C&S developed a work plan for a supplemental SI and is currently conducting this work. The supplemental SI involved additional subsurface investigations. In addition, an Interim Remedial Measures program was implemented to remove drums and other containers of unused chemicals that remained at the site.

**Zip-Zip Mini Mart** - Our second assignment under the City of Syracuse Brownfields Contract involves a gas station site. This former gas station and store had several petroleum underground storage tanks (USTs) still on site. C&S provided support to the City in acquiring funding through the State Brownfields program. C&S then proceeded with the development of a site investigation work plan. After obtaining bids from subcontractors, C&S conducted the SI, which consisted of subsurface borings; installation of monitoring wells; excavation of test pits; and sampling of soil, groundwater, and other on-site media. Upon the discovery of additional previously unknown USTs and a layer of free product in one of the groundwater wells, C&S developed a work plan for a supplemental SI to determine the lateral extent of contamination. In addition, an Interim Remedial Measures work plan was developed to address the free product in the ground.

**American Bag & Metals** - C&S was retained by the Syracuse Industrial Development Agency to provide an independent review and evaluation of site investigation results and to develop costs associated with remediation of an industrial property that was to be converted to a park as part of the City's Creekwalk project. Contamination at the site involves PCBs, industrial wastes, metals, and a variety of miscellaneous materials.



**Town of Clay Brownfields Project, Maider Road Site** - C&S has been retained as the Brownfields consultant for this former fuel oil/asphalt terminal site in the Town of Clay, New York. C&S has completed a preliminary site investigation to determine the approximate lateral extent of the contamination at this 63 acre facility and we are currently working on a full site investigation and building assessment. This investigation includes groundwater monitoring wells, surface soil sampling, subsurface investigations, and tank investigations. As part of the project, several large aboveground tanks are being dismantled and underground storage tanks are being removed. Following site restoration, the site will be redeveloped to provide waterfront recreation activities.

**Andover Chemical Site** - C&S provided site investigation services and remediation planning for an abandoned chemical distribution center at this former school site. C&S assisted Steuben County in the reuse of this site under the NYSDEC Voluntary Cleanup program which closely parallels the Brownfields program.

**Town of Clay Landfill Remediation** - This large municipal landfill had received a variety of industrial hazardous wastes. C&S completed the Remedial Investigation, Feasibility



Study, Remedial Design, and Construction oversight for remedial actions at this site. C&S is currently proving post closure monitoring.



**Carthage Machine Site** - C&S provided site remediation services and regulatory affairs assistance to the corporate consultants completing this voluntary cleanup project within NYSDEC Region 6.

**Former Rockwell Site** - C&S provided site investigation, remedial design, and remediation oversight services for this former manufacturing facility on the City of Syracuse's west side. This is currently the site of Rockwest Corporate Center.



**Municipal Fire Training Center** - C&S completed a Remedial Investigation & Feasibility Study at this PCB-contaminated site that had been used as a fire training center for a major Upstate New York municipality. Remediation of the site was completed in accordance with C&S's remedial design and the facility is currently being utilized.

**Pass & Seymour Legrand** - C&S provided engineering services in support of the site assessment, waste materials abatement, and Phase I demolition of a portion of this electrical component manufacturing plant in Solvay, New York, to support their newly renovated corporate headquarters.

**Former Van Duyn Home and Hospital** - C&S provided a predemolition assessment and design service for demolition of the county owned facility in the Town of Onondaga. The former Van Duyn Home and Hospital was the site of Onondaga County's tuberculosis sanatorium. Prior to demolition, the County asked C&S to help with the investigation and remediation of a gasoline spill, an asbestos survey, and lead paint surveys.



**Meridian Brownfield Site** - C&S worked with Cayuga County on the development of a scope of work for a brownfield Site in the Village of Meridian. This scope of work was submitted to the NYSDEC for inclusion in the State Brownfield program. The site was a former service station, but the only remnants were concrete pads. The property was in a residential area and future use is expected to be a small structure for use by a local historical society.





## Section 3

# Management and Staffing

C&S staff members are experienced in the diverse issues governing site investigation at hazardous waste sites and brownfield development projects. We also have extensive experience in the development of specifications and bid documents, and oversight of the construction activities. Our team stresses communication, quality, and value in the services we provide to you. Brief descriptions of key individuals are presented below. As can be seen from the detailed resumes provided in Appendix A, our team is composed of engineers, geologist, chemists, and certified asbestos personnel. The project organization is shown in the figure at the end of this section.

*Our team has extensive experience with brownfield assessment and remediation. They stress communication, quality and value in the services they provide.*

**Robert M. Palladine, Jr., P.E.**, Manager of the Environmental Services Group, has over 25 years of experience in environmental services, specializing in site investigation work and site development issues. Bob is familiar with the EQBA and Brownfields programs and has worked closely with our clients in obtaining funding.

**Thomas A. Barba**, Senior Project Scientist, serves as the Technical Coordinator of C&S's brownfield and hazardous waste site projects. In addition, He provides risk assessment services and assistance in data interpretation. Tom is an environmental chemist with over 25 years experience in site investigation and remediation work serving in both the industrial and consulting fields.

**Darryl Murszewski**, Engineer, will be the project manager. Darryl will be responsible for all day to day project activities, coordination with the City, and project administration.

**Steven M. Vinci, CPG**, Senior Engineering Geologist and Site Assessment Coordinator, provides technical assistance in evaluating remedial alternatives and tailoring investigation work to the planned use of the site. He has over 20 years of environmental experience and specializes in the demolition and reuse of industrial properties, and site remediation.

**John Holmquist, P.G.**, Geologist, has more than ten years of experience in conducting waste site investigations, including subsurface explorations, well installation and sampling, test pit programs, and geophysical investigations.

**Rory Woodmansee**, Project Engineer, will serve as the environmental engineer for the investigation and remedial assessment phases of these projects. Rory has several years of experience in both site investigations at contaminated sites and the development and implementation of remedial measures at these sites. Rory's background includes brownfield sites, hazardous waste sites, petroleum spill sites, and PCB contaminated sites.

**Christen Craig**, Environmental Scientist, has over five years experience in the collection and interpretation of environmental data for site investigations. Christen will be responsible for the sample collection, laboratory coordination, data reduction, and interpretation for these projects.

**Larry Celeste, P.E.**, Project Engineer, will also be involved in remedial design. He is responsible for the overall coordination of various hazardous waste, solid waste, civil, and facilities projects. Responsibilities include technical oversight of design activities, interface with clients and contractors, and coordination and supervision of construction administration services.

Project Organization



**Boone Park**  
Site Investigation  
Interim Remedial Measure, and  
Remedial Alternative Report  
City of Buffalo, New York

**Darryl C. Murszewski**  
*Project Manager*

**Robert M. Palladine, Jr., P.E.**  
*Project Advisor/QA/QC*

**Thomas A. Barba**  
*Technical Coordinator*

**Christen M. Craig**  
*Project Chemist*

**Steven M. Vinci, CPG**  
*Project Geologist*

**Rory Woodmansee**  
*Remedial Engineer*

**John R. Holmquist**  
*Hydrogeologist*

**Larry M. Celeste, P.E.**  
*Remedial Designer*





## Section 4

# RFQ Information

### Project Schedule and Reporting

C&S proposes to complete the work consistent with the schedule shown below.

Item	Description	Time
A	Project award & contract signing	Start of project
B	Work plan to City for review	A + 4 weeks
C	City completes review of work plan	B + 2 weeks
D	Work plan submitted to State for review	C + 1 week
E	State approval of work plan (Milestone 1)	D + 4 weeks
F	Site Investigation field work (Milestone 2)	E + 10 weeks
G	Begin implementation of IRM	F + 6 weeks
H	IRM bid solicitation and selection	H + 4 weeks
I	IRM construction begins	I + 2 weeks
J	Completion of IRM construction (Milestone 4)	J + 8 weeks
K	Draft SI and first phase RAR report to City for review	F + 4 weeks
L	City completes review of Draft SI and first phase RAR report	G + 3 weeks
M	Draft SI and first phase RAR report to State for review	L + 1 week
N	State Approval of Draft SI and first phase RAR report (Milestone 3)	M + 4 weeks
O	Third Phase RAR to City for review	N + 3 weeks
P	City completes review of Third Phase RAR	O + 2 weeks
Q	Third Phase RAR to the State for review	P + 1 week
R	State approval of Third Phase RAR (Milestone 5)	Q + 4 weeks
S	SI and RAR report to City for review	R + 3 weeks
T	City completes review of SI and RAR report	S + 2 weeks
U	SI and RAR report to State for review	T + 1 week
V	State approval of SI and RAR report (Milestone 6)	U + 4 weeks

$0 + 4 = 4$   
 $4 + 2 = 6$   
 $6 + 1 = 7$   
 $7 + 4 = 11$   
 $11 + 10 = 21$   
 $21 + 6 = 27$   
 $? + 4$   
 $? + 2$   
 $? + 8$   
 $21 + 4 = 25$   
 $27 + 3 = 30$   
 $30 + 1 = 31$   
 $35$   
 $38$   
 $40$   
 $41$   
 $45$   
 $48$   
 $50$   
 $51$   
55 weeks  
*over a year!*  
 ?

## Notes and Assumptions to the Schedule

- Item D includes field work, laboratory analysis, and data usability review by third party contractor.
- Item F is for the initiation of the bid process to select a bidder for construction of the IRM.

## Affirmative Action

As requested in the RFP, if selected, C&S will prepare and submit an Affirmative Action Work Plan to the City.

## Conflict of Interest

C&S states to the best of our knowledge and belief that there are no relevant facts or circumstances that could give rise to an organizational conflict of interest.

## Office Responsibility

Darryl Murszewski of C&S will be the primary client contact for this project. Darryl is based in our Buffalo Office (90 Broadway, Buffalo, New York 14203, 716-847-1630).

## Potentially Responsible Parties

C&S Design Build, Inc. and its affiliated companies (including C&S Engineers, Inc.) are, to the best of our knowledge, not involved as potential responsible parties for the Boone Park site. If information should become available indicating otherwise, we will immediately notify the City.

## Insurance

C&S maintains adequate insurance to conduct this work. If selected, we will provide documentation of that coverage.

## Cost Proposal

The cost proposal for the City of Buffalo Boone Park project is provided in a separate bound document marked as Volume 2.





## **DARRYL C. MURSZEWski** **PROJECT ENGINEER**

### **EXPERIENCE**

Examples of relevant C&S experience include:

- **NYSOGS Underground Storage Tank Program** Activity supervision, site evaluation, sample collection and monitoring well surveying for the New York State Office of General Services UST Program – Buffalo, Fredonia, Java, and Lewiston, NY.
- **Millennium Parkway** – Information development and environmental assessment report preparation for a proposed 4± mile municipal highway – Chautauqua County, NY.
- **Development Environmental Impact Statements (EIS)** – Preparation of Environmental Impact Statements (EIS) for rezoning, commercial and industrial developments – Lancaster and Town of Salina, NY
- **School District Environmental Impact Statements (EIS)** – Preparation of EIS reports and assessments for various School District Improvement projects including building additions, land acquisition, and playing fields – Dalton/Nunda, Fredonia, Falconer, Brocton, and Frewsburg, NY.
- **Niagara Frontier Transportation Authority (NFTA) Term Contract Environmental Engineering** – Multiple tasks including project management, environmental assessment, recycling evaluations, permit assistance, funding research, data collection and program development.
- **Environmental Permitting** – Preparation of documents for permit modification, site construction, flood control, drainage improvement and demolition projects. – Various localities and counties, NY.
- **NFTA Construction Management** – Construction administration, inspection management and field assessments for various NFTA construction projects at locations including the Buffalo Niagara International Airport, Light Rail Rapid Transit System and other NFTA-owned facilities; 1997-2003

Relevant private industry experience includes:

- Coordination and oversight of site investigations, PSA, RI/FS and waste disposal activities for a multi-building, multi-acre manufacturing site in Cheektowaga, NY (NYSDEC Inactive Hazardous Waste Site);
- Environmental/safety program and budget development, regulatory compliance, reporting, permitting, and auditing/assessments;
- Environmental fieldwork and analysis for a NYSHD certified lab.

*As a civil/environmental project engineer, Mr. Murszewski's responsibilities include civil and environmental engineering, construction management and administration of various engineering projects. He has prepared reports and studies for both public and private projects. Mr. Murszewski has managed a wide range of activities including multiple construction assignments for a local transportation authority. He also has several years of experience in private industry including analytical testing, quality assurance, process control, environmental and safety compliance.*

### **EDUCATION**

B.S. Civil Engineering, State University of New York at Buffalo  
A.A.S. Civil Technology, State University of New York at Buffalo

### **PROFESSIONAL ORGANIZATIONS**

Air & Waste Management Association



**ROBERT M. PALLADINE, JR., P.E.**  
**ENVIRONMENTAL SERVICE GROUP MANAGER**

**EXPERIENCE**

**Environmental Assessments:** Completion of numerous Phase I and II environmental site assessments for real estate transactions, compliance audits and development of environmental compliance manuals for government and industrial facilities.

**Solid and Hazardous Waste:** Investigation, closure design, construction administration and monitoring services for eight municipal and industrial landfills within New York State.

**Site Remediation:** Investigation and remediation of hazardous waste and petroleum spill sites within New York State including remediation of chemical, solvent, PCB and petroleum contamination.

**Wastewater Treatment and Conveyance:** Facility planning, process evaluation, design and construction administration services for upgrades of municipal sewage treatment facilities including conveyance systems and combined sewer overflows.

**Pretreatment:** Industrial wastewater pretreatment program compliance services for industry and municipal pretreatment program administration.

**Environmental Planning:** Completion of environmental planning studies, as well as environmental assessment forms, impact studies and regulatory compliance with the State Environmental Quality Review Act under 6NYCPR Part 617.

**Construction Phase Services:** Contract Administration, Inspection Services, Testing and Certification for environmental projects, including landfill construction and closures, site remediation, and treatment facilities.

Some projects representative of this experience include:

- **Regulatory Affairs** – Coordination of dealings with the New York State Department of Environmental Conservation for a wide variety of municipal, industrial, and commercial clients. Includes SPDES permit and Consent Order negotiations for various clients.
- **Landfill Closure Construction Phase Services**, Onondaga County. Construction contract management for closure of a 20-acre industrial landfill site.
- **Environmental site work and construction phase services** for construction of a 100,000 ton per year recycled liner board mill, Onondaga County, New York.

*Mr. Palladine has over 25 years of experience in environmental engineering consulting. As the Environmental Services Group manager, his responsibilities include technical oversight, project development and management of each of the disciplines within the group. Technical experience includes work involving wastewater treatment, combined sewer overflows, industrial wastewater pretreatment, chemical and petroleum bulk storage, solid and hazardous waste management, state environmental quality review process and regulatory affairs.*

**EDUCATION**

B.S. Environmental Engineering,  
Rensselaer Polytechnic Institute

M.S. Environmental Engineering,  
Rensselaer Polytechnic Institute

**SPECIALIZED TRAINING**

40-Hour Value Engineering  
Training

40-Hour OSHA Hazardous Waste  
Operations

8-Hour OSHA Supervisor Training

Dale Carnegie Management  
Training

**REGISTRATION**

P.E., New York, Ohio

**PROFESSIONAL ORGANIZATIONS**

Water Environment Federation

New York Water Environment  
Association

Manufacturer's Association of  
Central New York

- Closure of aboveground and underground bulk petroleum and chemical storage tanks including site assessment, specifications, remedial design, construction administration and inspection.
- Remedial Investigations, Feasibility Studies, and/or Remedial Design and Construction Administration Services for five inactive hazardous waste sites, Onondaga, Oswego and Jefferson Counties, New York.
- Secondary Clarifiers. Design and testing of additional secondary settling basins for a 20 MGD activated sludge plant.
- Treatment Plant Evaluation. Evaluation of an 18 MGD activated sludge plant, to determine current operating efficiencies of all major unit operations and provide recommendations for interim upgrade of the facility for improved operation and maintenance. Maximum hydraulic and treatment capacities were determined with respect to the development of CSO Best Management Practices.
- Developed the Industrial Wastewater Pretreatment Program for the Binghamton-Johnson City service area. Included industrial survey, evaluation of legal authority, establishment of program operating procedures and record keeping requirements. Also retained to provide program implementation and operating assistance.
- Closure Plan and Certification of Closure for three RCRA permitted hazardous waste TSD facilities, Onondaga County, New York.
- Industrial wastewater pretreatment services for Village of Greene, New York. Included industrial inspections, permitting and sewer use law modifications.
- Environmental Compliance Audit for Public Works Facility, Onondaga County, New York.
- Environmental audits for commercial real estate transactions.
- Cogeneration facility environmental services including compliance and permitting.

**THOMAS A. BARBA**  
**SENIOR PROJECT SCIENTIST**

**EXPERIENCE**

- Managed site investigations and remediation at several spill and inactive hazardous waste sites. Supervised and conducted work plan development, hydrogeologic programs, sampling and analysis, health and safety, data evaluation, risk assessment, report preparation, remedial design, and construction. Sites included active and inactive disposal sites, ash landfills, PCB sites, drum disposal sites, and solvent/petroleum spill sites.
- Conducted air quality projects for industrial facilities including emission point and source surveys, emission estimates and inventories, and permitting programs. Permitting included minor and major (Title V) facilities.
- Prepared environmental assessments and environmental impact statements for several major projects including a semiconductor manufacturing facility, a truck stop / travel plaza, and an airport expansion.
- Directed various aspects of bulk petroleum and chemical tank management projects including removal, design, and installation of new facilities, testing, soil remediation, and SPCCs.
- Provided environmental consulting services to several colleges and universities. Aspects included air quality services, oil storage, chemical bulk storage, wastewater, hazardous chemical management, and environmental impact review.
- Conducted environmental audits and environmental site assessments for several industrial and commercial facilities. Aspects included air, wastewater, water supply, solid waste, hazardous waste, chemical and petroleum storage, chemicals handling, SARA, and wetlands.
- Provided technical and project management services to a variety of industrial clients including pulp and paper, metal finishing, foundries, metal working, utilities, electronics, food, utilities, cogeneration, recycling, and general manufacturing facilities.
- Managed wastewater treatment programs for several industrial clients for both direct and indirect discharges. Tasks included water use evaluations, SPDES and stormwater permitting, monitoring, treatability studies, and pilot studies. Negotiated reduced permit requirements for several clients resulting in decreased operating costs.
- Developed closure, stormwater, SPR, BMP, SPCC, and similar plans for various facilities.
- Worked in Process Control, Quality Control, and Environmental Services groups at a major chemical manufacturing plant in Upstate New York. Served as technical liaison between chemical plant and divisional sales, marketing, and distribution staffs. Responsible for all hazardous waste and toxic substance activities for three large chemical plants and two research and development laboratories in Upstate New York.

*Mr. Barba has extensive experience in environmental control and management including work in industry and in the consulting field. He has been responsible for projects involving air emissions, wastewater, hazardous waste, site contamination, site investigations, environmental assessments and audits, health and safety programs, sampling and analysis programs, permitting, and environmental impact statements.*

**EDUCATION**

B.S. (Biochemistry) SUNY College of Environmental Science and Forestry

B.S. (Chemistry) Syracuse University

**SPECIALIZED TRAINING**

Additional coursework in MBA program, Syracuse University

OSHA 40-Hour HAZWOPER

Risk Analysis in Environmental Health – Harvard University School of Public Health

Groundwater Pollution and Hydrology – Princeton University

**PROFESSIONAL ORGANIZATIONS**

Air & Waste Management Association

American Chemical Society

**STEVEN M. VINCI, CPG**  
**SENIOR ENGINEERING GEOLOGIST/  
 ENVIRONMENTAL ASSESSMENT COORDINATOR**

**EXPERIENCE**

Mr. Vinci has helped public and private sector customers with a broad range of environmental compliance issues for over 15 years. He has prepared Spill Prevention Control and Countermeasure (SPCC) Plans for petroleum bulk storage owners and Spill Prevention Reports (SPR) for industrial owners of chemical bulk storage tanks. In addition, he developed interview and documentation protocols for environmental compliance audits that C&S performed on numerous mental health care and developmental centers operated by New York State.

Since 1995, Mr. Vinci has managed over 230 UST/AST removal, spill investigation, and remediation projects throughout New York State as part of multiple year term agreements with the New York State Office of General Services. Included in this work is tank removal oversight, preliminary assessments, preparation of specifications, remedial design, remedial technology pilot testing, installation and O&M of remedial systems, waste disposal, and negotiations with regulators.

He has completed over 200 Phase I and Phase II environmental site assessments for commercial real-estate transactions and right-of-way acquisitions associated with public works projects. These public works projects are typically corridors that have been located in urbanized and rural areas. The length of these corridor assessments has ranged from 1,000 feet to 4 miles. He has experience in assessing undeveloped parcels; low rise and high rise buildings, industrial properties, and areas where extensive modification to the original topography has resulted due to the placement of fill materials. Through this experience, Mr. Vinci has branched into pre-construction and pre-demolition assessments to help owners and contractors properly manage waste generated during redevelopment activities on distressed properties.

**PUBLICATIONS**

Vinci, S., "Evolution of Practice in New York State", New York State Real Estate Journal, Vol. 6, No. 14, July 28, 1994.

Vinci, S., "Phase II Environmental Site Assessments: Tackling the Liability Issue", New York State Real Estate Journal, Vol. 7, No. 14, July 27, 1995.

Beyers, Stephen B., Vinci, Steven M., "Changes At the Town Pump: Helping Towns Understand and Apply Regulations, Clean Up Spills, and Design and Inspect New Fuel Facilities" Talk of the Towns, Vol. 9, No. 4, July/August 1995.

*Mr. Vinci's responsibilities have included planning, implementation, and supervision of environmental and forensic investigation programs for hazardous waste, Brownfield Voluntary Cleanup, and spill sites. Mr. Vinci has branched into pre-construction and pre-demolition assessments to help owners and contractors properly manage waste generated during redevelopment activities on distressed properties.*

**EDUCATION**

B.S., Geology, SUNY Fredonia

A.S., Liberal Arts, Monroe Community College

**SPECIALIZED TRAINING**

Aeration Technologies for Soil and Groundwater Remediation Association of Engineering Geologists

40 Hour Safety Course and 8 Hour Supervisors Course for Hazardous Waste Operations as Required by OSHA 29CFR 1910.120

Environmental Site Assessments in Conjunction with Real Estate Transactions, Association of Groundwater Scientists and Engineers

Risk Based Corrective Action Applied at Petroleum Release Sites ASTM RBCA User Training

**REGISTRATION**

Professional Geologist, South Carolina, Florida, Pennsylvania

**PROFESSIONAL ORGANIZATIONS**

American Institute of Professional Geologists – Certified Professional Geologist

American Association of Petroleum Geologists – Charter Member Division of Environmental Geosciences

Association of Engineering Geologists

## **JOHN HOLMQUIST**

### **GEOLOGIST**

#### **EXPERIENCE**

Since 1992, Mr. Holmquist has been involved with multiple aspects of environmental remediation contracting and site assessment services including:

- Preparation of technical proposals and workplans related to subsurface site investigations to gather information for the implementation of various remedial technologies.
- Management of environmental site investigations and remediation projects in Central and Upstate New York, and The Hudson Valley.
- Supervision of hydrogeologic investigations to assess hydrogeology and extent/migration of groundwater contamination. Interpretation of field data including report preparation.
- Design and implementation of subsurface investigation drilling and boring programs for petroleum contaminated sites ranging in size from small gasoline stations to large NYSDOT facilities.
- Design and installation of in-situ groundwater recovery/treatment and soil vapor extraction (SVE) systems.
- Design and construction of passive bio-remediation systems to remediate ex-situ petroleum contaminated soil piles ranging in size from 15 to 500 cubic yards using indigenous bacteria and nutrient augmentation.
- Supervision of over 50 petroleum underground storage tank removal projects and produced closure reports.
- Maintenance and upgrade of groundwater recovery and treatment systems and soil vapor extraction systems.
- Conducted Phase I Environmental Site Assessments.
- Negotiated project remedial requirements with regulatory personnel.
- Training of new staff in proper environmental field data gathering techniques including all aspects of groundwater sampling, photoionization detector calibration and operation, and site surveying.

*Mr. Holmquist joined C&S in 1998, after several years with a prominent remediation contractor. In addition to his experience in environmental remedial contracting and site assessment, Mr. Holmquist has worked for 3 years in gas and oil exploration in Texas and Oklahoma. He managed an on-site hydrocarbon and lithology data logging unit designed to supply real-time data to the drilling superintendent and staff geologists.*

*Mr. Holmquist has also shared his knowledge of personal computer use through the teaching of several local adult education classes.*

#### **EDUCATION**

B.A., Geology, University of Minnesota

#### **SPECIALIZED TRAINING**

40-Hour Safety Course for Hazardous Waste Operations, OSHA 29 CFR 1910.120

8-Hour Supervisors Course for Hazardous Waste Operations, OSHA 29 CFR 1910.120

#### **REGISTRATION**

P.G., Wisconsin

#### **PROFESSIONAL ORGANIZATIONS**

Central New York Association of Professional Geologists



## **CHRISTEN M. CRAIG**

### **ENVIRONMENTAL SCIENTIST**

#### **EXPERIENCE**

- Project Manager for several post-closure monitoring programs at municipal/hazardous waste landfills. Tasks associated with post-closure programs have included organizing, tabulating, and interpreting analytical data, completing comparisons with NYSDEC Standards and Guidance Values, coordinating sampling and analysis programs, communication with regulatory agencies, and report preparation.
- Project Manager for Industrial Wastewater Pretreatment Program. Responsibilities include industrial and treatment plant monitoring as well as permit administration for significant dischargers. As part of permit administration, Ms. Craig established effluent concentration limits, sampling and reporting requirements, as well as conducted annual inspections to verify compliance and limit the potential for accidental discharges for significant industries.
- Assisted in the completion of a RI/FS for a 16-acre inactive hazardous waste site including such tasks as site soil and groundwater sampling, air quality monitoring, study of existing data, sample preparation and sampling techniques; data management; data validity, and data usability.
- Assisted with the preparation of Spill Prevention Control and Countermeasure (SPCC) Plans for several facilities in accordance with 40 CFR Part 112.
- Completed environmental site assessments for real-estate transactions on a wide variety of properties including undeveloped rural and urban parcels, industrial properties, and commercial buildings. Aspects included wastewater, water supply, solid waste, chemical and petroleum storage, chemicals handling, and SARA.
- Provided environmental consulting services to universities and colleges. Aspects included air quality services, oil storage, chemical bulk storage, and wastewater.
- Completed air emissions modeling for highway projects in accordance with New York State regulations. As part of the air quality studies, modeling of existing and future vehicle carbon monoxide emissions were performed along project corridors.
- SPDES Permit monitoring and reporting at several facilities within New York State. Aspects included sampling and analysis and discharge monitoring report preparation.
- Completed annual SARA Title III Reporting for several facilities. Tasks included review of MSDS sheets and product inventories, development of computer program to calculate approximate amounts of chemical constituents stored or purchased, and report preparation.

*Ms. Craig joined C&S Engineers, Inc., in 1995 in the Environmental Services Group. Ms. Craig has been responsible for projects involving wastewater, solid waste, site contamination, air emissions, site investigations, environmental assessments and audits, sampling and analysis programs, SPDES monitoring programs, industrial inspections, and permitting.*

#### **EDUCATION**

B.S., Chemistry; State University College at Cortland

#### **SPECIALIZED TRAINING**

40-Hour Safety Course for Hazardous Waste Operations, OSHA 29 CFR 1910.120

8-Hour Refresher Course for Hazardous Waste Operations, OSHA 29 CFR 1910.120

#### **PROFESSIONAL ORGANIZATIONS**

Air and Waste Management Association

**RORY WOODMANSEE**  
**PROJECT ENGINEER**

**EXPERIENCE**

**Environmental Assessments and Impact Statements:**

Has performed field work, public contact, and document preparation, associated with the New York State and Federal environmental review processes, including:

- Principal author of a federal Environmental Assessment and New York State Environmental Impact Statement for a proposed Runway Extension at a major airport in Upstate New York. Project included noise modeling (using FAA Noise Model), air quality modeling, wetland delineation and mitigation plan, floodplain modeling, and assessment of significance of impacts for each of the NEPA and SEQRA potential impact categories.
- Principal author of an Expanded Environmental Assessment (per New York State SEQRA) for installation of fiber optic line along Interstate Route 87 from Albany to Montreal. Included assessment of construction impacts within wetlands and adjacent to hazardous waste sites and within the boundaries of the Adirondack Park.
- Conducted Phase I Environmental Assessments for municipal and industrial clients, including Departments of Transportation (corridor assessments) and Industrial Development projects (site assessments).

**Environmental Design and Evaluation:**

Provided design services, including work plans, sampling plans, quality assurance plans, site management plans, and contractor bid documents for environmental projects, including:

Excavation and off-site disposal of PCB-impacted soils at the Oswego Fire Training School, a CERCLA site and facility operated by Niagara Mohawk Power Corporation.

Construction and operation of a treatment system to treat PCB impacted groundwater encountered during an excavation and disposal action at a Niagara Mohawk Power Corporation Temporary Storage and Disposal Facility in Liverpool, New York.

A Feasibility Study for remediating PCB contamination of soil, sediments, and groundwater at a CERCLA site in Cobleskill, New York.

Design of a pump and treat system for ground water impacted by chlorinated solvents at a Bausch and Lomb Corporation site near Rochester, New York.

*Mr. Woodmansee has been involved with environmental investigation, design, and remediation activities for clients within the private, institutional, and government sectors. He has developed subsurface investigations and conducted sampling of soil, sediments, surface water and groundwater associated with releases of petroleum and chemicals to the environment. He has also been involved with designing and implementing remediation systems, including excavation and off-site disposal of soils impacted by petroleum products, PCBs, and volatile organic compounds.*

**EDUCATION**

B.S., Environmental Resource and Forest Engineering  
 State University of New York  
 College of Environmental Science and Forestry

A.S., Engineering  
 Cayuga County Community College

**REGISTRATION**

E.I.T., New York State

40-hour Hazardous Waste Operator Certified

Improvements to the Metropolitan Syracuse Wastewater Treatment Plan and to the Binghamton-Johnson City Wastewater Treatment Plant.

Design of a bioremediation system for treated saturated soils impacted by volatile and semi-volatile organic compounds at a McKesson Corporation site in Syracuse, New York.

**Field Sampling, Construction Oversight and Project Implementation:**

Provided field engineering and technical support for environmental projects of varying magnitude, including:

Field Service Manager for New York State Office of General Services-led removals of underground petroleum storage tanks, including determination of extent of contaminated materials and collection of remediation verification samples.

Contractor oversight and verification sampling for PCB impacted soils at sites where total volumes of impacted materials ranged from several hundred cubic yards to over 10,000 cubic yards.

Installation of permanent and temporary water treatment facilities for environmental projects, including installation of buildings, pumping systems, chemical precipitation/flocculation addition, contact clarification tanks, groundwater monitoring wells, and separate phase liquid extraction systems.

Coordinated the installation of three single-residence activated carbon water treatment systems for private individuals whose water supplies were threatened by releases at adjacent properties; included preparation of public notification/information materials, participation in public meetings, and oversight of installations.

**LAWRENCE M. CELESTE, P.E.**  
**PROJECT ENGINEER**

**EXPERIENCE**

**Solid Waste Engineering**

Town of Clay, New York: Design and construction administration services for the closure of a 22 acre inactive hazardous waste landfill, consisting of a geosynthetic liner system, and including a perimeter road, drainage facilities, and wetland restoration.

Village of Lake Placid, New York: Design and construction administration services for the construction of a 2 acre C&D landfill, consisting of an amended soil liner system, and including a perimeter road and site drainage.

Serkil, LLC: Design services for the construction of two 4.5 acre double composite lined landfill cells, including leachate collection and transport.

Steuben County, New York: Siting, design and construction administration services for the construction of a new regional solid waste transfer facility. Siting criteria included SEQRA compliance and public participation.

Essex County, New York: Design and construction administration services for the closure of a 5 acre municipal landfill, consisting of a geosynthetic liner system with surface drainage provisions. Services also included engineered modifications and upgrades to the facility's leachate collection, storage and disposal systems.

Saratoga Spa State Park, New York: Design and construction administration services for the closure of a 4 acre Park landfill, consisting of a geosynthetic liner system with surface drainage provisions, and including protection of adjacent wetlands.

**Environmental Engineering**

Performed Phase I and Phase II environmental site assessments for various municipal, commercial, and industrial/private clients in Upstate New York. Services included historical searches, site investigations, and report preparation.

City of Syracuse, New York: Construction inspection and administration services for the remediation of the City's Fire Training Center, consisting of the testing and removal of contaminated soils, installation of monitoring wells, and placement of asphalt pavement.

Onondaga County, New York: Design and construction administration services for the installation of an underslab depressurization system and HDPE vapor barrier beneath the basement of the new City of Syracuse/Onondaga County Courthouse. The system is a precautionary measure resulting from the discovery of petroleum contaminated soils at the site - which previously housed a municipal parking garage.

*Mr. Celeste has over 24 years of experience in engineering and construction management services; with an emphasis on civil and environmental design and related construction management activities. As a Project Engineer in the Environmental Services Group, Mr. Celeste is responsible for the overall coordination of various solid waste, civil, and facilities projects. Responsibilities include technical oversight of design activities, interface with clients and contractors, and coordination and supervision of construction administration services.*

**EDUCATION**

B.S., Civil Engineering  
University of Notre Dame

**REGISTRATION**

P.E., New York, 1994

**SPECIALIZED TRAINING**

OSHA HAZWOPER Training  
OSHA HAZWOPER Supervisor's Training

**PROFESSIONAL ORGANIZATIONS**

American Society of Civil Engineers

### Facilities Engineering

General Electric Co.: Design and construction administration services for construction of the U.S. Air Force Over-the-Horizon Radar System facility buildings and associated support systems for the West Coast and Alaskan locations.

Lockheed Martin Corp.: Design and construction administration services for the installation of radar systems, and associated support facilities, along the Port of New Orleans traffic route. Project management services for the installation of radar systems, and associated support facilities, along the Gulf of Suez, Egypt.

### Airport Design

Village of Massena, New York: Design services for the construction of an apron expansion for the Massena Airport.

### Construction Review

General Electric Co.: Performed on-site inspection of the construction of several radar towers located throughout the Kingdom of Saudi Arabia. Purpose of inspection was to review construction techniques, construction quality and management procedures to advise home office management of status of the project and to recommend steps to ensure a timely and profitable completion of the project.