

## **ATTACHMENT I**

### **Environmental Tasks - Opinion of Probable Cost**





**Stantec**

Stantec Consulting Services Inc.  
61 Commercial Street  
Rochester, NY 14614-1009  
Tel: (585) 475-1440  
Fax: (585) 272-1814

---

September 20, 2011  
File: 190500558

Ron Christenson  
Christenson Corporation  
12 South 6th Street  
Minneapolis, MN 55402

**Reference: Revised Opinion of Probable Costs  
Environmental Tasks - Engineering and Construction  
The Flats at Brooks Landing  
Rochester, New York**

Dear Ron,

As requested, Stantec Consulting Services Inc. (Stantec) is pleased to submit this revised Opinion of Probable Cost (OPC) for environmental tasks involving preparation of a Soil and Groundwater Management Plan (SGMP) Addendum and sub-slab depressurization system designs; and SGMP implementation assistance involving agency coordination, construction observation, testing and reporting services for the construction of The Flats at Brooks Landing (Flats) in the City of Rochester, New York.

#### **PROJECT UNDERSTANDING AND BACKGROUND**

The overall property is an approximate 1.13+/- acre parcel of land which is proposed to consist of three commercial tax parcels located at Genesee Street and Brooks Avenue in the City of Rochester, New York, north of the Staybridge Suites Hotel. A subdivision is proposed that would create three parcels: R3A, R3B and R3C. These parcels are proposed to be developed into the following projects:

1. Parcel R3A: Flats at Brooks Landing – 0.712+/- acre parcel involving mixed use including restaurant, student housing and at grade parking consisting of:
  - 5,000 sf restaurant (1st floor)
  - 3,366 sf basement boat house partially situated beneath the restaurant
  - Student housing involving 170 bedrooms on 10 floors (2 through 11).
  - 45 at grade on-site parking spaces for the restaurant and 86 off-site at grade parking spaces, to the north across South Plymouth Avenue (Rainbow Lot), environmental costs for which are not included in this OPC.
2. Parcel R3B: Credit Union Building. This development involves a 0.328 +/- acre parcel envisioned to be developed with a 4,000+/- sq. ft. commercial building and eight parking spaces. Costs for a sub-slab depressurization system have been included.
3. Parcel R3C: 0.090+/- acre vacant lot. This lot will be developed into vehicular access and parking for the adjacent Credit Union development, including landscaped areas, as well as

September 20, 2011

Page 2 of 9

**Reference: Flats at Brooks Landing Revised OPC**

an easement for a future hotel sign. Environmental costs related to this site have been included in this OPC.

The following previous site investigations have been completed at the site:

- Phase I Environmental Site Assessment in September 2002 of a portion of the site.
- A Phase II Environmental Investigation that was summarized in Sear-Brown's December 11, 2002 Phase II Environmental Investigation Report.
- In November 2002, Stantec completed a Phase I ESA of the remaining three parcels comprising Sub-Area I which included: 1315 South Plymouth Avenue, 150 Elmwood Avenue and 1400 South Plymouth Avenue.
- In May 2003, Stantec completed a Phase II Environmental Investigation which included the three Sub-Area 1 properties. The scope of the Phase II Investigation was based on the findings and recommendations contained in the Phase I ESA.
- In January 2005, Stantec completed one year of groundwater monitoring at the site as noted below.
- In anticipation of the Flats at Brooks Landing development, a Limited Soil and Groundwater Investigation Report was prepared in July 2011 to assess residual volatile organic compound (VOC) concentrations in conjunction with a geotechnical investigation that was being performed by Foundation Design, P.C.

Stantec was retained by Rochester Economic Development Corporation (REDCO) to prepare and implement a Corrective Action Plan (CAP) for the remediation of the five parcels, 972, 998, 1004, and 1008 Genesee Street, and 15 Brooks Avenue, comprising the northwest portion of Sub-Area I.

The CAP was implemented during the summer of 2003 and included the following remedial activities:

- Excavation and off-Site disposal of chlorinated volatile organic compound (VOC) impacted carbon fill;
- Application of Hydrogen Release Compound (HRC™) to the VOC impacted groundwater through trench excavations; and
- Removal of the floating residual petroleum product and former fuel supply piping.

The generation of a Remedial Construction Report with a request for a No Further Action letter and spill file inactivation from the NYSDEC was generated in February 2004. The NYSDEC issued a No Further Cleanup Required letter to the City of Rochester on March 11, 2004 regarding these five parcels, other than continued groundwater monitoring (which was completed in January 2005), and the implementation of the approved Soil and Groundwater Management Plan (SGMP).

**Reference: Flats at Brooks Landing Revised OPC**

Given the investigation findings and the proposed redevelopment of the Site, a Soil and Groundwater Management Plan (SGMP) was generated by Stantec in August 2003 and subsequently approved by the NYSDEC on March 11, 2004. The SGMP was developed to aid in properly handling and managing the impacted fill materials and groundwater for the excavation activities that will occur over the entire Site. This SGMP was used to guide how environmental issues were addressed during construction of the Staybridge Suites Hotel which was completed on the site in 2008.

The findings of the July 2011 Limited Soil and Groundwater Investigation, confirmed the presence of low level petroleum and/or chlorinated VOCs in each of the six groundwater samples that were collected at concentrations above groundwater standards or guidance values. Methyl tert-butyl ether (MTBE), a former gasoline additive, had the highest reported concentration and was also the most prevalent compound. While the reported VOC concentrations are lower than those reported during prior investigations of the site, VOCs are present at each of the locations investigated indicating the continued presence of low level impacts from historic site uses. These results were shared with the NYSDEC and the NYSDOH along with the most recent project plans and the NYSDOH recommend that an active sub-slab depressurization system be installed in the new buildings to address the potential for soil vapor intrusion (SVI). An alternative method to address SVI would be to conduct an SVI sampling program once the buildings were constructed and if the results show a need to install an SSDS, then they would need to be installed at time. Given this input, and the disruptions that would be caused by retrofitting new buildings with SSDSs following completion it has been assumed that these systems would be installed during building construction.

Given the current proposed plans for development of the Flats at Brooks Landing, you have requested Stantec to prepare a revised OPC for environmental tasks for the Flats including preparation of a SGMP Addendum, design and installation of sub-slab depressurization systems, and SGMP implementation assistance involving agency coordination, and environmental related construction observation, monitoring and reporting services.

**Assumptions**

Stantec has prepared this OPC to be used as a budgetary guideline for Christenson Corporation. This Opinion has been prepared based upon the environmental site investigation and remediation activities previously completed by Stantec at the site; five design drawings dated May 4, 2011 that were prepared by Costich Engineering, and seven architectural drawings prepared by BKV group, on behalf of Christenson Corporation dated September 1, 2011, and which were provided to Stantec by Christenson Corporation. It is understood that detailed final design drawings concerning site grading, stormwater management, utilities, building design, foundation design, etc. and a firm construction schedule have not yet been completed by you and/or your other design professionals and those items may affect the assumptions and the OPC presented herein.

The OPC is based upon related project experience and anticipated field conditions. It is understood that project-specific unit rates, which may differ from the estimated unit costs provided herein, may be obtained as the project design evolves and as a result of future bidding processes performed by Christenson Corporation, however incorporation of such new information is not included in this scope of work. Based on the project schedule dated June 6, 2011 provided by Christenson



**Reference: Flats at Brooks Landing Revised OPC**

Corporation, it is understood that project construction is expected to begin December 1, 2011 and is expected to be completed by June 1, 2013.

Certain aspects of the project will need to be approved by the New York State Department of Environmental Conservation (NYSDEC), the New York State Department of Health (NYSDOH) and/or the Monroe County Department of Health (MCDOH). This OPC may need to be modified at a future date to incorporate input from the agencies; however costs for such an update are not included herein.

Based on a review of the prior site investigation results, the previously implemented remedial measures, and the agency approved SGMP, the primary areas of environmental concern are expected to include: management of cinder rich, impacted fill materials which will be disturbed during construction; the potential for volatile organic compound (VOC) impacted groundwater to be intercepted by construction; and potential volatile organic vapor intrusion within the new building.

Based on information provided by Leonard Preston of Costich Engineering, 880+/- cu. yds. of material will be cut and reused on-site, and a total of 2,989+/- cu. yds. of fill material will be needed, leaving a net import quantity of 2,109+/- cu. yds. Based on prior limited investigations of this area, (prior to its disturbance during construction of the Staybridge Suites Hotel), elevated concentrations of metals and semi-volatile organic base-neutral compounds were reported in the fill material. Given the amount of fill material will need to be imported in order to balance the earthwork at this site, and given the understanding that the cut material will be reused on-site, it is assumed that any material that needs to be cut will be placed beneath impervious surfaces or beneath a minimum of one foot of clean soil cover for those areas proposed to be landscaped in accordance with the SGMP.

It is understood that the finished floor of the building's basement boat house is proposed for 519 ft. above mean sea level (AMSL) such that it should be above the 100 year flood elevation and also approximately 3 ft. above the highest groundwater elevation previously measured in the proposed building area. In addition, based on the Foundation Design, P.C. Geotechnical Evaluation report for the site dated September 2011, helical piles are proposed beneath the credit union and H-piles are proposed to be installed beneath the restaurant and residential tower. As a result it is understood there should be minimal disturbance to groundwater flow beneath the building, however, the H-pile caps and the interconnecting load bearing beams will require displacement of an estimated 4 ft. of material in those locations. It is understood from discussions with Christenson Corporation that the elevator sump will be in a sealed self-contained unit such that there will be no direct connection with the groundwater table. Therefore, it is assumed that no special provisions will be needed for collecting and handling groundwater intercepted by the building.

Given the documented groundwater plume in this area, and the proposed basement boat house, the first floor restaurant and the stair well that will serve the student housing, it is assumed that a Liquid Boot vapor barrier will be installed in combination with the previously discussed sub-slab depressurization system (SSDS) to prevent soil vapors from entering the buildings.

It is understood that public bidding will not be required, prevailing wage rates do not apply, and the engineers and contractors will be under contract to Christenson Corporation to perform all work. It

Reference: Flats at Brooks Landing Revised OPC

is further understood from Christenson Corporation that excavation activities for the project are expected to be completed within an eight week period and Foundation Design has estimated that foundation installation could potentially involve eight weeks, which would overlap in part with the earthwork activities.

Any changes to the various aspects of the project design and associated quantities that require a change to this OPC would be addressed as an additional service. It is assumed that Christenson Corporation will provide updated project schedules for all construction activities affecting the environmental activities described herein as soon as they are available so that Stantec has sufficient time to schedule necessary site inspections.

### **Scope of Work**

Environmental engineering and related contractor tasks within are expected to include, but not necessarily be limited to the following:

- Task 1 - Preparation of a SGMP Addendum and Agency Coordination;
- Task 2 - SSDS Design;
- Task 3 - Field Activities including up to 17 weeks of full-time construction observation by an environmental monitor during all times when site contamination related environmental activities occur in order to verify implementation of the SGMP Addendum during building excavation, site grading, utility construction, foundation installation activities, installation of the vapor barrier and SSDS, SSDS commissioning, and follow-up monitoring in accordance with the approved SGMP addendum;
- Task 4 - Attendance at meetings as requested (assume 8 meetings); and
- Task 5 - Reporting.

This OPC includes a brief description for each of the above items along with attached summary tables. The OPC is summarized at the end of this document.

### ***Task 1 - Agency Coordination and SGMP Addendum***

Stantec will coordinate with the NYSDEC and the New York State and Monroe County Departments of Health (NYSDOH and MCDOH) regarding implementation of the NYSDEC approved SGMP for the proposed Flats project. The development as it is currently proposed is considerably different than the 5,000 sq. ft. restaurant-only project that was envisioned in the SGMP when it was prepared and approved by the agencies. To address the proposed changes, including but not limited to the basement boat house and attached student housing components and the 4,000 sq. ft. credit union, Stantec will prepare a SGMP addendum letter for submission to the agencies. It is proposed to include the available drawings from Christenson Corporation and their consultants identifying proposed site, utility, building and landscaping features. The SGMP addendum will identify the assumptions previously stated regarding the site development plans. It is assumed that one round of consolidated comments from the agencies will be addressed in order to finalize the SGMP Addendum.



Reference: Flats at Brooks Landing Revised OPC

### ***Task 2 – SSDS Design***

Stantec will provide engineering services for the design of vapor barrier and sub-slab depressurization systems in the footprints of the proposed boat house, restaurant and stair well as well as the credit union. The depressurization systems are anticipated to consist of horizontal screen networks placed within clean gravel layers below the building slabs, whereby sub-slab vacuum will be achieved using in-line fans typically employed in radon mitigation applications.

This task includes designing the systems and proposing modifications to structural, electrical, plumbing and mechanical drawings that will be prepared by others. Stantec will prepare one (1) drawing with specifications containing information for each of the two SSDSs, and redline one (1) structural, one (1) electrical, one (1) plumbing and one (1) mechanical drawing for the construction drawing sets for each of the buildings. The original authors of the drawings will be responsible for reviewing the redlined drawings, and incorporating and resolving any conflicts. Stantec will not be responsible for sub-slab depressurization system malfunction or failure if the proposed modifications are not implemented as proposed.

Stantec assumes that the sub-slab depressurization systems will be implemented as part of the building construction contract(s); hence this proposal does not include costs associated with a bid solicitation process.

### ***Task 3 – Field Activities***

#### SGMP Construction Observation Activities

The purpose of the SGMP is to manage impacted soil/fill that will require relocation during building excavation, site grading and utility construction activities and impacted groundwater that will require removal and off-site disposal.

Stantec will provide a qualified environmental professional during disturbance of soil, fill materials and groundwater. Based on the available construction schedule information, it has been assumed that there may be up to a total of 17 weeks of environmental monitoring oversight (10 hours per business day, excluding nights, weekends and holidays). Should the construction schedule differ from what is assumed herein, the budget will be adjusted. Based on the area of the proposed construction, we have assumed a Community Air Monitoring Plan (CAMP) will not be required and that normal dust control measures (i.e. periodic wetting of exposed surfaces, etc.) will be incorporated into the construction activities.

The construction observation activities will include monitoring excavations for visual indications of impacts and periodically screening excavated materials with a photoionization detector (PID) for volatile organic vapors.

If materials are encountered which are significantly different than those previously documented at the Site, and they cannot be reused on-site as previously discussed, we will assist the contractor with obtaining the necessary samples to facilitate disposal at a properly permitted facility. The recommended sampling will be based on previous sampling, observation of the material, agency

Reference: Flats at Brooks Landing Revised OPC

input if needed, and the requirements of an approved waste disposal facility. The disposal sampling may include: toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs); TCLP SVOCs; TCLP metals; Polychlorinated Biphenyls (PCBs); flash point; paint filter test; reactivity; and pH. Similar to the typical fill materials, the owner/contractor would be responsible to make the necessary arrangements for off-site disposal of atypical materials.

Based on the information provided, it is understood that the proposed helical and H-pile building foundation systems are not expected to generate groundwater that will require management and off-site disposal. Furthermore, based on the available information in the most recent utility plan it appears that utility invert elevations should be above the anticipated water table. Therefore, no provisions are included for the management of groundwater that may be encountered during construction in the event it needs to be disposed of off-site. Stormwater management will be addressed by the owner's site engineer.

Based on the available drawings, it is understood that the site will largely be covered by impervious surfaces. As a result, it is assumed there will be limited need for importation of one foot of clean soil (including topsoil) to cover landscaped areas. Consequently, no costs are included for placement of a one foot clean soil cover in the OPC.

Given the conditions on-Site, and as requested by the SGMP, Stantec will implement a Health and Safety Plan (HASP) for its personnel only. The contractors will be required to prepare HASPs for their construction activities. It is assumed that work will be performed in "Level D" Personnel Protective Equipment.

SSDS Construction Observation Activities

As previously discussed, Stantec will provide construction observation services for a total of up to 17 weeks (10 hours per business day which excludes night, weekend or holiday work). This includes the previously discussed earthwork related activities as well as construction of the Liquid Boot vapor barrier and the SSDS at both the boat house/restaurant/student housing/stairwell and the credit union. Should the construction schedule differ from what is assumed herein, the budget will be adjusted.

Stantec will observe SSDS system startup at both the boat house/restaurant/student housing/stairwell and the credit union over the course of one day to verify that the systems are functioning according to specifications and they are providing sufficient vacuum based on vacuum monitoring points installed throughout the building slabs.

A final report documenting the system and its operating instructions will be prepared and submitted to you, the NYSDEC and DOH. It is assumed that other members of your design team will prepare any required as-built structural, electrical, plumbing and mechanical record drawings. A post-mitigation ambient air sampling program could potentially need to be performed, if requested by the agencies; however it is not included at this time. This program would likely involve collection and analysis of one (1) indoor sample from each building and one outdoor air sample during the heating season that follows system implementation and a minimum of 30 days after system startup.



**Reference: Flats at Brooks Landing Revised OPC**

Stantec proposes to perform up to one year of O&M monitoring at both the boat house/restaurant/student housing/stairwell and the credit union. This would include two-hour monthly site visits to verify that the fans are operating as intended. In addition, we will prepare one summary report for the NYSDEC and DOH. Air monitoring is not expected to be required as long as the required vacuum is maintained in the sub-slab environment. It is assumed that the client will ensure continuous system operation through regular monitoring of installed monitoring devices (indicator light, manometer and alarm). This proposal does not include maintenance activities, or any activity required due to changes in the building's configurations that may result in a reduction of the effectiveness of the mitigation systems or replacement of the systems. Please note that additional annual monitoring and reporting events may be required by the agencies but are not included herein at this time.

One soil vapor monitoring event is planned for the Rainbow Lot, whereby one soil vapour sample will be collected from each soil vapour monitoring point, and analyzed for TO-15. Seven (7) soil vapour monitoring points are currently estimated for the Rainbow Lot.

***Task 4 - Meetings***

We have budgeted for attendance at up to eight (8) project meetings in Rochester, New York at the construction site, City Hall, or Stantec's offices.

***Task 5 - Reporting***

During the SGMP and SSDS field observation activities, weekly summary e-mails will be prepared and distributed documenting SGMP and SSDS related tasks. Following completion of the earthwork activities, SSDS construction and commissioning, and Site restoration activities, a report will be prepared for the agencies. Copies of certified weigh tickets and waste manifests for materials disposed off-Site at secure landfills (if any) and documentation for any imported clean material will be required from the contractor to include in the closure report. No as-built drawings are anticipated to be prepared by Stantec as part of this report. We have assumed that one draft report will be prepared and one round of consolidated comments will be incorporated in the final report.

***Schedule***

The SGMP addendum could be prepared within approximately three weeks of notice to proceed contingent on receiving the necessary project design drawings and information from other members of the design team. It is anticipated that it may require the agencies up to one month to review and comment on the SGMP addendum. Revisions to the SMGP addendum would be completed within approximately one week of receipt of comments. A similar two month schedule is anticipated for preparation of the SSDS designs, and their review, revision and approval process.

It is understood that Foundation and utility construction observation activities are expected to begin December 1, 2011. It is understood that construction will be completed within 18 months. A summary report will be prepared following receipt of any necessary information from Christenson Corporation such as weigh tickets and waste disposal manifests, if any.

September 20, 2011  
Page 9 of 9

Reference: Flats at Brooks Landing Revised OPC

### OPC Summary

Based on the prior investigations of the site, the requirements of the existing SGMP, the need for a vapor barrier and SSDS, the documentation regarding the proposed project provided by Christenson Corporation and other design firms involved in the project, and our understanding of those items not presently designed, presented below is our opinion of the probable range of environmental costs for the Flats at Brooks Landing. We have included a 15% contingency to account for unanticipated conditions such as groundwater management, and atypical fill materials. In summary, including contingency, the OPC for the environmental costs for the Flats at Brooks Landing as described herein is in the range of \$288,000 and \$331,000.

<i>Opinion of Probable Cost:</i>	<u>Stantec Labor &amp; Expenses</u>	<u>Contractor Costs</u>	<u>Total OPC</u>
1 - Agency Coordination and SGMP Addendum	\$6,610	N/A	\$6,610
2 - SSDS Design	\$25,730	N/A	\$25,730
3 - SGMP & SSDS Construction	\$99,704	\$126,354	\$226,058
4 - Meetings	\$5,797	N/A	\$5,797
5 - Reporting	\$24,041	N/A	\$24,041
<b>Sub-Total</b>	<b>161,882</b>	<b>\$126,354</b>	<b>\$288,236</b>
<b>15% Contingency</b>	<b>\$24,282</b>	<b>\$18,953</b>	<b>\$42,235</b>
<b>Opinion of Probable Range of Environmental Costs</b>	<b>\$186,164</b>	<b>\$145,309</b>	<b>\$331,471</b>

Should you have any questions, or require further information, we would welcome your calls.

Sincerely,

**STANTEC CONSULTING SERVICES INC.**



Michael P. Storonsky  
Managing Senior Associate, Environmental Management  
Tel: (585) 413-5620  
Fax: (585) 272-1814  
mike.storonsky@stantec.com

Attachment: OPC Summary Tables 1-3

cc. Ted Zontelli

u:190500558\correspondence\tr OPC\_Flats\_rev\_9.20.11.doc



Table 1 Opinion of Probable Cost for Environmental Tasks The Flats at Brooks Landing (Boathouse/Restaurant/Student Housing/Stairwell) Rochester, NY					
TASKS	UNIT	QUANTITY	COST (\$)	EXT. COST (\$)	COMMENTS
SSDS Construction for Proposed Boathouse, Restaurant, Student Housing, and Stairwell					
					Assuming there is a stairwell adjacent to restaurant to connect to student housing.
Liquid Boot Vapor Barrier	FT <sup>2</sup>	8,879	\$4.88	\$41,588	Includes 5,379 ft2 restaurant and 3,500 ft2 boathouse (which extends beyond the restaurant footprint). Based on Terrafix 9/13/11 quote - Terrafix can provide a formal quote upon receipt of specs/drawings (plumbing layouts, plan layout, mechanical drawings, floor penetrations, structural layouts, interior footings, drawings with design for barrier).
Geovent	LFT	360	\$12.00	\$4,320	Based on Steve Weilerman (Terrafix) verbal quote to Stantec on 9/14/11. (Length of entire building is ~120'.....this was multiplied by 3 to get 360')
Clean gravel (#1 washed stone), installed in a 6" layer	TON	230	\$14.50	\$3,335	Based on Hanson Aggregates 9/14/11 verbal quote to Stantec of \$10/ton if no transportation included, and \$14.50/ton if transportation included. Ted Zontelli (RRP) relayed to Stantec that specs for foundation/subsurface materials do not yet exist.
Delta Drain	FT <sup>2</sup>	1,035	\$2.0	\$2,070	Based on Zimmer Sales & Service 2010 estimate of \$1.70/ft <sup>2</sup> . Boathouse walls ~10' high, boathouse west wall is ~52' long, north wall is ~51' long, and south wall is ~51' long.
e-Pro (rubber coating)	FT <sup>2</sup>	1,035	\$1.0	\$1,035	Based on Zimmer Sales & Service 2010 estimate of \$1.70/ft <sup>2</sup> . Boathouse walls ~10' high, boathouse west wall is ~52' long, north wall is ~51' long, and south wall is ~51' long.
Vertical piping, installed	LF	409.5	\$8	\$3,276	Assume horizontal piping connects to 3 main vertical risers (1 for stairwell (assuming there is a stairwell adjacent to the restaurant to connect to student housing) and 2 for boathouse/restaurant, ~10' (from basement to 1st floor), ~14' (from 1st floor to 2nd floor), ~11.25' each (from floors 2-3, 3-4, 4-5, 5-6, 6-7, 7-8, 8-9, 9-10, 10-11, 11-roof). \$6/linear foot originated from 2006 Brooks Landing OPC Table 5 (SSDS installation).
Horizontal piping, installed	LF	360	\$8	\$2,880	\$6/linear foot originated from 2006 Brooks Landing OPC Table 5 (SSDS installation). (Length of entire building is ~120'.....this was multiplied by 3 to get 360')
Misc. Plumbing Fittings and Connections (including vacuum monitoring points)	LS	1	\$1,200	\$1,200	Prior project experience
Fan and fittings	EACH	3	\$2,400	\$7,200	Prior project experience
Vapor monitoring probe	EACH	5	\$1,200	\$6,000	Prior project experience. Stantec installs vapor monitoring probes (after #1 alone laid out by contractor.)
U-tube manometers, installed	EACH	3	\$400	\$1,200	\$300/manometer originated from 2006 Brooks Landing OPC Table 5 (SSDS installation).
Electrical connections	LS	1	\$6,000	\$6,000	\$5,000/electrical installation originated from 2006 Brooks Landing OPC Table 5 (SSDS installation), which was \$15,000.
Stacks, guide lines and collars	EACH	3	\$1,200	\$3,600	Prior project experience
Engineering tasks (Includes Credit Union)					
Preparation of Soil and Groundwater Management Plan	Units	1	\$6,510	\$6,510	
Audendum and Agency Coordination	Units	1	\$25,730	\$25,730	
SSDS Design	Units	1	\$25,730	\$25,730	
Field Activities (up to 17 weeks, 10 hours day (1 person)), one 8 hour day construction of vapor monitoring probes (1 person), one 10 hour day of installation of vapor monitoring probes (2 people), one 10 hour day of system commissioning (2 people - includes both buildings), 2 hour monthly visits for 12 months for O&M (1 person) (Assumes 9)	Units	1	\$89,704	\$89,704	
	Units	1	\$5,797	\$5,797	
Reporting (17 Weekly e-mails and closure report)	Units	1	\$24,041	\$24,041	
TOTAL OPINION OF PROBABLE COST FOR ENVIRONMENTAL TASKS FOR PROPOSED RESTAURANT/BOAT HOUSE/STUDENT HOUSING/STAIRWELL					
				\$245,586	excludes 15% contingency
Notes:					
1. Supporting calculations and documentation for estimated construction quantities and costs are available upon request.					
2. Costs do not include labor and expenses for engineering design of any treatment or waste handling systems.					
3. Costs do not include tax or permit costs and assume prevailing wage rates do not apply.					
4. Assume no soil or groundwater disposal as a result of foundation or utility installation.					
5. Assume 6/6/11 project schedule is correct and construction (relating to potential environmental issues) lasts from 12/7/11 - 4/1/12.					
6. Costs do not include any laboratory analysis.					
7. Cost does not include 15% contingency.					
8. Cost contingent upon site work/construction of Boathouse/Restaurant/Student Housing/Stairwell and Credit Union occurring concurrently.					





