



361A Old Finch Ave.  
Toronto, ON M1B 5K7  
www.torontozoo.com

Telephone: 416-392-5900  
Fax: 416-392-5934

**Chair**  
Joe Torzok  
**Chief Executive Officer**  
John Tracogna  
**Chief Operating Officer**  
Robin D. Hale

2013-01-22

**REQUEST FOR QUOTATION  
SNOW LEOPARD HOLDING & RESTROOM BUILDINGS COATINGS  
RFQ # 01 (2013-01)**

The Toronto Zoo invites you to submit a quotation for the supply of all labour, tools, materials and equipment necessary to complete the supply and installation of epoxy coatings on walls, floors, metal, etc. at the Snow Leopard Holding & Restroom Buildings according to the quotation documents. Scope of work includes preparation of the existing surfaces, removal of existing coating by sandblasting, filling of cracks, seal, prime, and top coat all surfaces as per the quotation documents and in accordance with the Manufacturer's Specifications. The contractor is responsible for all pricing and all other arrangements with all subcontractors as required.

The project will be awarded and a Purchase Order issued for work to commence on **Monday, 2013-02-04**. All work must be completed by **Friday, 2013-02-15**.

The Quotation package includes Instructions, Terms & Conditions, Drawings, and Forms. Quoted prices shall remain in effect for a period of ninety (90) days from the Quotation due date.

**Site Meeting:** A site meeting has not been scheduled for this project. Tendering documents are available to download at no charge from the Toronto Zoo website, <http://www.torontozoo.com/ExploretheZoo/BusinessOpportunities.asp>. Bidders are solely responsible for downloading all documentation and checking periodically for any addenda prior to the stipulated closing date.

**Due Date:** Your quotation must be completed, and received by the Supervisor, Purchasing & Supply, Toronto Zoo, Administrative-Support Centre, 361A Old Finch Ave., Toronto, Ontario, M1B 5K7 by:

**Friday, 2013-02-01, 1200 hours (noon, local time)**

The Board of Management of the Toronto Zoo reserves the right to reject any or all quotes or to accept any quote, should it deem such an action to be in its interests.

If you have any queries regarding this request for quote, please contact Peter Vasilopoulos, Supervisor of Purchasing & Supply, (416) 392-5916. If you have any technical queries regarding this request for quote, please contact Leona Mitchell, Project Manager, (416) 392-6002.

Yours truly,

Paul K. Whittam  
Manager, Financial Services

**Table of Contents**

<b>SECTION</b>	<b>DESCRIPTION</b>	<b>PAGE (S)</b>
<b>RFP LETTER</b>	Invitation Letter	1
<b>T.O.C.</b>	Table of Contents	2
<b>1.0</b>	Instructions	3
<b>2.0</b>	Terms and Conditions	4
<b>3.0</b>	Project Requirements	6
<b>4.0</b>	Submission Forms	10
	Submission Label	14
	Notice of No Bid	15
<b>Appendix A</b>	List of sub-contractors	16
	<b>DRAWINGS</b>	
<b>A-101</b>	Snow Leopard Holding Building Floor Plan	
<b>A-104</b>	Snow Leopard Holding Building Reflected Ceiling Plan	
<b>A-120</b>	Snow Leopard Holding Building Sections	
<b>A-130</b>	Snow Leopard Holding Building Wall Sections	
<b>A-150</b>	Snow Leopard Holding Building Interior Elevations	
<b>A-900</b>	Snow Leopard Holding Building Schedules & Details	
<b>S-001</b>	Structural – General Notes	
<b>A-201</b>	Restroom Building Plans	
<b>A-220</b>	Restroom Building Sections	
<b>A-230</b>	Restroom Building Wall Sections	
<b>A-250</b>	Restroom Building Interior Elevations	
<b>A-900</b>	Schedules & Details	
	<b>SPECIFICATIONS</b>	
<b>002200</b>	Supplementary Instructions	
<b>011000</b>	Summary	
<b>012500</b>	Substitution Procedures	
<b>013100</b>	Project Management and Coordination	
<b>013233</b>	Photographic Documentation	
<b>013300</b>	Submittal Procedures	
<b>014000</b>	Quality Requirements	
<b>015000</b>	Temporary Facilities	
<b>017117</b>	Animal Management Requirements of Construction	
<b>017300</b>	Execution	
<b>017419</b>	Construction Waste Management & Disposal	
<b>017700</b>	Close Out Procedures	
<b>099600</b>	High Performance Coatings	
<b>09700</b>	Floor Finish (Alternate)	

**INSTRUCTIONS**

- 1.1 Ensure that you have received all **sixteen (16)** pages plus **ten (10)** drawings and **fourteen (14)** specifications of the RFQ package.
- 1.2 A site meeting has not been scheduled for this project
- 1.3 Complete ALL FORMS in section 4.0 and return by due date and time received on or before **Friday 2013-02-01, by 1200 hours (noon)** or your Quotation will not be considered. Include signed copies of any addenda with your proposal package.
- 1.4 Quotations must not be submitted by facsimile, email or any other electronic format.
- 1.5 Show itemized cost of HST if applicable.
- 1.6 Toronto Zoo reserves the right to award in whole or in part on the basis of the bids received, Lump Sum Price or Breakdown Price.
- 1.7 All Prices submitted shall be quoted in Canadian currency.
- 1.8 Use the attached submission label, when you submit your response in a sealed envelope or package and deliver to the Toronto Zoo.
- 1.9 Quotation prices shall remain in effect for a period of ninety (90) days from the Quotation due date.
- 1.10 Include product information, samples, and pictures, as necessary.
- 1.11 Provide references of at least three (3) clients for whom your company has performed similar work. References must include photos of three (3) different installations, client company name, contact name, address and e-mail address.
- 1.12 If applicable, suggested alternative products are acceptable, however all such products must be quoted separately and should not replace the Toronto Zoo requested product, work or service.
- 1.13 It is the responsibility of the Bidder to understand all aspects of the RFQ and to obtain clarification if necessary before submitting their quotation.
- 1.14 For any questions concerning the contract terms and conditions of this RFQ, please contact:

Peter Vasilopoulos, Supervisor,  
Purchasing & Supply, Tel: 416-392-5916, Fax: 416-392-6711,  
E-mail: [pvasilopoulos@torontozoo.ca](mailto:pvasilopoulos@torontozoo.ca)

Any questions regarding the work in this RFQ must be forwarded by the end of the day **Friday, 2013-01-25** to:

Leona Mitchell, Project Manager  
Tel. 416-392-6002, Fax 416-392-5934,  
E-mail: [lmitchell@torontozoo.ca](mailto:lmitchell@torontozoo.ca)

---

## TERMS AND CONDITIONS

- 2.1 Definitions:** Wherever used in the Request for Quotation the word **"Board"** means the Board of Management of the Toronto Zoo and the word **"Vendor" or "Contractor"** means the person or persons or Corporation to whom the purchase order is issued.
- 2.2 Vendor Assurance:** Unless otherwise stated, the goods, material, articles, equipment, work or services, specified or called for in or under this Quotation, shall be delivered or completely performed, as the case may be, by the Vendor as soon as possible and in any event within the period set out herein as the guaranteed period of delivery or completion.
- 2.3 Country of Origin:** Wherever possible, the goods, services, materials, articles or equipment, specified or called for in or under this Quotation, shall be of Canadian origin and manufacture.
- 2.4 Delivery:** The prices stated in this Quotation cover the services, material, articles or equipment referred to herein, being delivered F.O.B. destination, freight, express, duty and all other charges prepaid, unless otherwise indicated herein. A detailed delivery ticket or piece tally, showing the exact quantity of goods, material, articles or equipment shall accompany each delivery. A receiver's receipt shall not bind the Board to accept the goods, material, articles or equipment covered thereby, or the particulars of the delivery ticket or piece tally therefore. The Vendor shall not be entitled to any interest upon any bill due to delay in its approval by the CEO of the Toronto Zoo or his designate.
- 2.5 Invoicing:** Unless otherwise indicated herein, the prices stated are payable in Canadian Funds at the head office of the Board. Any Harmonized Sales Tax (HST) applicable shall be shown as a separate item. The Vendor's HST/Business registration number must be indicated on the invoice.

The Vendor shall clearly show any special charges such as packaging and freight, where applicable, as separate items on the invoice.

Payments to non-resident Vendors may be subject to withholding taxes under the Income Tax Act (Canada). Unless a non-resident Vendor provides the Board with a letter from Revenue Canada, Taxation waiving the withholding requirements, the Board will withhold the taxes it determines are required under the Income Tax Act (Canada).

- 2.6 Notice of Delivery:** The Vendor shall notify the Purchasing Agent of the Board at the address given for the mailing of invoices, in writing as soon as possible of the details of the shipment of the goods, materials, articles or equipment.
- 2.7 Right to Cancel:** The Board shall have the right to cancel at any time this Quotation or any contract or any part of any contract resulting from this Quotation in respect of the goods, material, articles, equipment, work or services set out in this Quotation or any such contract or part of such contract, not delivered or performed at the time of such cancellation, and the Board will not be responsible to make any payments in respect of any such goods, materials, articles, equipment, work or services and shall not incur any liability whatsoever in respect thereto.

In the event that the Vendor fails or neglects by any act or omission to comply with any of the conditions set out herein, this Quotation or any contract resulting from this Quotation may be unconditionally cancelled by the Board without notice to the Vendor.

- 2.8 Official Agreement:** No verbal arrangement or agreement, relating to the goods, material, articles, equipment, work or services, specified or called for under this Quotation, will be considered binding, and every notice advice or other communication pertaining thereto, must be in writing and signed by a duly authorized person.
- 2.9 Worker's Rights:** The Vendor shall comply with the conditions of the Board relating to Worker's Rights, a copy of which is available on application to the Manager, Fair Wage and Labour Trades Office, City of Toronto, 18<sup>th</sup> Floor, West Tower, City Hall, Toronto, Ontario, M5H 2N2 or by phone at 416-392-7300.
- 2.10 Indemnity:** The Vendor shall at all times well and truly save, defend, keep harmless and fully indemnify the Board, the City of Toronto, Toronto Region and Conservation Authority and their servants, employees, officers or agents, hereinafter called the "Indemnities", from and against all actions, suits, claims, demands, losses, costs, charges, damages, and expenses, brought or made against or incurred by the Indemnities, its or their servants, officers, employees, agents or invitees in any way relating, directly or indirectly, to goods, material, articles or equipment supplied or to be supplied, or to the supplying of goods or services, pursuant to this Quotation, or any other claim, action, suit, demand, loss, cost, charge, damage or expense relating to copyright, trademark or patent with regard directly or indirectly with any such goods, services, material, articles or equipment or the supply or performance thereof.
- 2.11 Liability for Acts of Vendor Employees, Contractors or Agents:** The Vendor acknowledges responsibility and accepts liability for the acts of any of its employees, contractors and agents while on Toronto Zoo property. The Toronto Zoo reserves the right to request background checks for any individual providing the services requested on behalf of the Vendor.
- 2.12 Guaranty of Quotation:** All goods, material, articles, equipment, work or services, specified or called for in or under this Quotation, shall be supplied or performed at the price or process and on the basis set forth or referred to in and in accordance with the Offer and this Quotation. The basis on which this Quotation is given shall include any specifications, plans, price schedules, samples, addenda or other details pertaining thereto, or provided in connection therewith.
- 2.13 Right of Notice:** Any notice that the Board may be required or desire to give to the Vendor shall for all purposes to be deemed to have been sufficiently and properly given and afforded by registered mail addressed to the Vendor at the address shown for the Vendor on this form and shall therefore be presumed to have been received by the Vendor on the third day following such registration.
- 2.14 Formal Contract:** The Vendor may be required and shall, if requested by the solicitor for the Board so to do, to execute and enter into a formal contract that is satisfactory to the solicitor for the Board, in order to document the contract resulting from this Quotation and to embody indemnity and related provisions that in the opinion of such solicitor are required to protect the Board.
- 2.15 Charity Status:** The Toronto Zoo is a registered charitable organization (registration #BN 119216398RR0001) and accordingly may be eligible for preferred pricing which should be reflected in the Quotation as submitted.
- 2.16 Performance Evaluation:** The Contractor's performance will be evaluated by the Chief Executive Officer and/or Chief Executive Officer's Representative during the Contract and at the end of the Contract. In the event that the Contractor's performance is considered unsatisfactory by

the Chief Executive Officer and/or Chief Executive Officer's Representative, the Contractor and/or its affiliates may become ineligible from bidding on future contracts issued by the Board.

### **3.0 PROJECT REQUIREMENTS**

The work shall commence once the project has been awarded and a Purchase Order issued. The scope of work includes supply of all labour, tools, materials and equipment necessary to complete the supply and installation of coatings on the walls, floors, ceilings, metals, etc. of the Snow Leopard Holding building. Scope of work includes preparation of the existing surfaces, filling of cracks, prime and top coat all surfaces as per the Manufacturer's Specifications.

#### **3.1 SCOPE OF WORK**

1. Supply all labour, tools, materials and equipment necessary to complete the work as outlined in the quotation documents, drawings, and specifications.
2. All work to be completed in accordance with applicable codes.
3. Contractors are to provide required lockouts (if/as required).
4. Prepare all surfaces to accept new coating system. Surface preparation will include sandblasting of all surfaces as per the Manufacturers Specification. The existing surfaces of the building are as follows: walls pre-cast concrete, ceiling hollow core slab and the floors are poured concrete. There are no existing coatings on these surfaces. Sandblasting of these surfaces should be in accordance with SSPC-SP13/NACE 6. The contractor should provide a 9 sq m mock up on each surface prior to completion of the work. The sample must be reviewed and approved by the Toronto Zoo prior to completion of the work.
5. Surfaces to be coated include; walls, floors, ceilings, hollow metal doors, metal door frames, metal window frames, exposed metal piping, ductwork, etc. Exposed metal piping and ductwork should be completed when it is installed and ready for coating application.
6. All animal caging components are stainless steel and do not require coating.
7. Fill all holes and cracks and allow suitable curing time prior to coating application. The existing floors are sloped to drain. The coating contractor must maintain this slope when completing the coating application work.
8. Water tests should be completed in the presence of Toronto Zoo staff.
9. Apply penetrating sealer to all surfaces receiving coating. Including metal, walls, and floors, etc.
10. Once penetrating sealer has cured apply primer and top coat of approved product as per the Manufacturer's Specification.
11. All floor coatings must have non slip finish reviewed and approved by Toronto Zoo staff prior to completion of the work.

12. All sealer, primer and base coats are to be completed once the building walls and roof are installed. The final coat will be completed once the interior services installation and caging are complete. The contractor should consider this in their pricing.
13. It is anticipated that the start date for this work is February 04<sup>th</sup>, 2013. The timeline for completion has been identified as two weeks. The contractor is expected to complete all work within this timeframe therefore the contractor must consider this and include it with their pricing, (weekend, double shift, after hours, extended hours may be required to complete the work).
14. If the start date is altered the contractor is expected to begin the work on the revised start date and complete the work within two weeks.
15. This two week timeline does not include the final coat. When the contractor returns to complete the final coat they must protect all surfaces not being coated.
16. Protect all mechanical systems, vents, fans, etc. from sand and or dust while sandblasting.
17. As the buildings may be partially occupied during the work you may be required to provide a 20 mil polywall to protect adjacent areas. Provide proper ventilation during the work.
18. Protect all areas not affected by the work. Any damage or overspray to these areas will be the responsibility of the contractor to rectify
19. It is the responsibility of the contractor to confirm that all doors, gates, and caging hardware are operational prior to completion of the work.
20. Clean the work area and remove all debris from site on a daily basis. Complete a thorough cleaning of the site upon completion of the work. To be reviewed and approved by the Toronto Zoo prior to acceptance of the work.

The Contractor is responsible for all pricing and all other arrangements with their subcontractors as required. Work is to commence as soon as the award is made and be completed and installed by **Friday, 2013-02-15**.

The following are attached:

#### DRAWINGS

A-101	Snow Leopard Holding Building Floor Plan
A-104	Snow Leopard Holding Building Reflected Ceiling Plan
A-120	Snow Leopard Holding Building Sections
A-130	Snow Leopard Holding Building Wall Sections
A-150	Snow Leopard Holding Building Interior Elevations
A-900	Snow Leopard Holding Building Schedules & Details
S-001	Structural – General Notes
A-201	Restroom Building Plans
A-220	Restroom Building Sections
A-230	Restroom Building Wall Sections
A-250	Restroom Building Interior Elevations
A-900	Schedules & Details

SPECIFICATIONS

002200	Supplementary Instructions
011000	Summary
012500	Substitution Procedures
013100	Project Management and Coordination
013233	Photographic Documentation
013300	Submittal Procedures
014000	Quality Requirements
015000	Temporary Facilities
017117	Animal Management Requirements of Construction
017300	Execution
017419	Construction Waste Management & Disposal
017700	Close Out Procedures
099600	High Performance Coatings
09700	Floor Finish (Alternate)

**3.2 CONTRACTOR RESPONSIBILITIES**

1. Regular meetings/communication with the Toronto Zoo Project Team to review project status and to discuss issues that may arise during the project.
2. Provide samples, mock ups, etc. as required to the Project Team.
3. Provide product information, MSDS sheets and colour samples to the Project Team prior to start of the work where applicable.
4. Provide the Zoo with a five (5) year warranty for parts and labour upon completion of the project.
5. Protect adjacent areas not included in the project. Any damage caused will be the responsibility of the contractor to rectify at no additional cost to the Zoo.
6. Clean-up the work area daily and make good any damage caused as a result of the work.
7. Secure the work site and provide construction signs and barriers to prevent injury to Zoo personnel and the public who will require access to the space during the work.
8. Upon award of contract, Contractor is to finish all work, including clean up and demobilization by the completion date specified.
9. Submit all shop drawings for review and approval prior to start of fabrication. Review of shop drawings shall not mean that the Toronto Zoo approves detail design inherent in shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in shop drawings or of his responsibility for meeting all requirements of the subcontract documents.
10. Submit close out documents as requested. Include warranties and "As built" drawings.



### **3.3 SAFETY SPECIFICATIONS**

1. It is the responsibility of the Contractor to protect the site as required during construction.
2. Ensure that awareness of public safety is considered and protect visitors in the vicinity during the construction period.
3. All necessary personal protective equipment must be worn at all times and MSDS sheets must be available on site as required.
4. The contractor is to abide by applicable Toronto Zoo Health & Safety Policies, the Ontario Health and Safety Acts, the Ontario Building Code and all other applicable codes including the Fire Codes.
  - i. SAFE-002 Health & Safety Hazard Reporting
  - ii. SAFE-017 Contractors Safety
  - iii. SAFE-018 Vehicles on Site
  - iv. SAFE-007 Working in Confined Space
  - v. SAFE-025 Hot Work
  - vi. SAFE-013 Equipment Lockout/Tagout

Toronto Zoo's Commitment to the City of Toronto's Corporate Smog Alert Response Plan

5. It is the responsibility of the Contractor to ensure that the work site is properly protected at all times. All work sites must be marked and barriered adequately with construction signs posted to secure and isolate the work site from the public or other personnel that have access to the area.

### **3.4 OTHER INFORMATION**

The successful bidder must demonstrate the ability to complete the work to standards acceptable to the Zoo and prove past performance in the completion of similar types of work for other clients by providing relevant examples of work and references. The successful bidder must also demonstrate and guarantee that they can produce the work in the allotted time.

**4.0 SUBMISSION FORMS:**

I/We, hereby, submit the Quotation and will comply with all terms, conditions, specifications and drawings (when provided) as set out within the Board’s Quotation.

I/We, hereby, have received, allowed for and included as part of our submission all issued Addendum numbered \_\_\_\_\_.

This form must be completed, properly signed and received on or before the date and time specified or your Quotation will not be considered. Quotation prices shall remain in effect for a period of ninety (90) days from the Quotation due date.

The Board of Management of the Toronto Zoo reserves the right to reject any or all Quotations or to accept any Quotation, should it deem such action to be in its interests.

By signing and submitting this FORM, you are agreeing to the release of your quotation information, as deemed necessary by the Board, in order to conduct business associated with this quotation or project.

COMPANY INFORMATION	
Company Name:	
Name of authorized Signing Officer	Title:
Signature of authorized Signing Officer:	Date:
Contact Name:	Title:
Address:	
Telephone #:	Fax #:
Email:	Web Site:
HST #:	

**4.1 QUOTATION PRICING - LUMP SUM PRICE**

<p>All prices are to include the supply and installation of all labour, material, charges, payroll, burden and profit.</p> <p><b>DESCRIPTION:</b></p>	<p>Price complete excluding HST</p>
<p>To provide all labour, tools, materials, and equipment necessary to complete coatings application work at the Snow Leopard Holding Building as specified in the quotation documents, drawings &amp; specifications, including floors, 4" cove base, walls, ceilings, metal, doors, frames, etc.</p>	<p>\$</p>
<p>To provide all labour, tools, materials, and equipment necessary to complete coatings application work at the Restroom Building as specified in the quotation documents, drawings &amp; specifications, including floors, 4" cove base, walls, ceilings, metal, doors, frames, etc.</p>	
<p><b>HST</b></p>	
<p><b>Total</b></p>	

**4.2 ITEMIZED PRICING**

<p>All prices are to include the supply and installation of all labour, material, charges, payroll, burden and profit. The Itemized Pricing is the reduction in bulk quotation price if item is deleted from the overall scope of work.</p> <p><b>DESCRIPTION:</b></p>	<p>Price complete excluding HST</p>
<p>To provide all labour, tools, materials, and equipment necessary to complete supply and installation of Stonhard GS4 4" cove base. Includes perimeter of all walls for the Snow Leopard Holding Building.</p>	<p>\$</p>
<p>To provide all labour, tools, materials, and equipment necessary to complete supply and installation of Stonhard GS4 4" cove base. Includes perimeter of all walls for the Restroom.</p>	<p>\$</p>
<p><b>HST</b></p>	
<p><b>Total</b></p>	

**4.3 ALTERNATE PRICING**

	All prices are to include the supply and installation of all labour, material, charges, payroll, burden and profit. The Alternate Pricing is the reduction or increase in bulk quotation price if item is substituted from the original specified product or services in the scope of work.  <b>DESCRIPTION:</b>	<b>ADD Price complete excluding HST</b>	<b>DELETE Price complete excluding HST</b>
	To provide all labour, tools, materials, and equipment necessary to complete flooring application work using a trowelled epoxy system at the Snow Leopard Holding Building as specified in the quotation documents, drawings & specifications. (Ref. Specification Section 09700 – Floor Finish (Alternate)).	\$	\$
	To provide all labour, tools, materials, and equipment necessary to complete flooring application work using a trowelled epoxy system at the Restroom Building as specified in the quotation documents, drawings & specifications. (Ref. Specification Section 09700 – Floor Finish (Alternate)).		
		<b>HST</b>	
		<b>Total</b>	

**4.4 UNIT PRICING**

Provide unit pricing for the following items that are included in the Lump Sum Price. All prices are to include the supply and installation of all labour, material, charges, payroll, burden and profit.	
To supply all labour, tools, materials and equipment necessary to complete the work as per the quotation documents and in accordance with the Manufacturer's Specification for wall coating application.	\$ SQ FT
To supply all labour, tools, materials and equipment necessary to complete the work as per the quotation documents and in accordance with the Manufacturer's Specification for ceiling coating application.	\$ SQ FT
To supply all labour, tools, materials and equipment necessary to complete the work as per the quotation documents and in accordance with the Manufacturer's Specification for floor coating application.	\$ SQ FT

<p><b>To supply all labour, tools, materials and equipment necessary to complete the work as per the quotation documents and in accordance with the Manufacturer's Specification for metal coating application.</b></p>	<p><b>\$ SQ FT</b></p>
<p><b>To prepare surfaces and apply primer and 2 top coats to hollow metal doors and frames. All work to be completed as per the Manufacturer's Specification.</b></p>	<p><b>\$ Per Dr/Fr</b></p>

<b>COMMITMENT TO DELIVER</b>	<b>YES / NO</b>
<p>Please confirm that you are able to complete the work by <b>Friday, 2013-02-15</b></p>	

<b>WARRANTY</b>	<b>Specify</b>
<p>Please confirm five (5) year warranty on parts and labour upon completion of the project.</p>	

<b>DISCOUNT</b>	<b>Discount</b>	<b>Days</b>
<p>Discount allowed for prompt payment and period within which invoice must be paid to qualify.</p>	<p>%</p>	

<p><b>Name of Firm:</b></p>	
<p><b>Signature of Signing Officer(s)</b></p>	

**SUBMISSION LABEL**

**This address label should be printed and affixed to the front of your sealed tender, quotation and proposal envelope/package submission. Toronto Zoo will not be held responsible for envelopes and packages that are not properly labelled or submitted to an address other than the one listed on this label.**

---

**Vendor Name**

---

**RFQ 01 (2013-01)  
SNOW LEOPARD HOLDING & RESTROOM BUILDINGS COATINGS  
Due Date : Friday, 2013-02-01, 12:00 (Noon) local time**

**TO BE RETURNED TO**

**TORONTO ZOO  
C/O SUPERVISOR, PURCHASING & SUPPLY  
ADMINISTRATIVE SUPPORT CENTRE  
361A OLD FINCH AVE.  
TORONTO, ONTARIO  
M1B 5K7**

**NOTICE OF NO BID**

**INSTRUCTIONS:**

It is important to the Toronto Zoo to receive a reply from all invited bidders. If you are unable, or do not wish to submit a bid, please complete the following portions of this form. State your reason for not bidding by checking the applicable box(es) or by explaining briefly in the space provided. It is not necessary to return any other Request for Proposal/Quotation/Tender documents or forms. Please just return this completed form by fax or by mail prior to the official closing date. **Purchasing and Supply Fax Number: (416) 392-6711.**

<b>A Proposal/Quotation/Tender is not submitted for the following reason(s):</b>		
<input type="checkbox"/>	Project/quantity too large.	<input type="checkbox"/> Project/quantity too small.
<input type="checkbox"/>	We do not offer services or commodities to these requirements	<input type="checkbox"/> Cannot meet delivery or completion requirement
<input type="checkbox"/>	We do not offer this service or commodity.	<input type="checkbox"/> Agreements with other company do not permit us to sell directly.
<input type="checkbox"/>	Cannot handle due to present commitments.	<input type="checkbox"/> Licensing restrictions
<input type="checkbox"/>	Unable to bid competitively.	<input type="checkbox"/> We do not wish to bid on this service or commodity in the future.
<input type="checkbox"/>	Insufficient information to prepare quote/proposal/tender	<input type="checkbox"/> Specifications are not sufficiently defined
<input type="checkbox"/>	We are unable to meet bonding or insurance requirements.	<input type="checkbox"/>

<u>Other reasons or additional comments (please explain):</u>   
---

Company Name:	
Address	
Contact Person:	
Signature of Company Representative:	
Date:	
Phone Number:	
Email address	
Fax Number:	

**APPENDIX A – LIST OF SUB-CONTRACTOR**

<p>The Bidder proposes to sublet the following portions of the Work to the persons firms or corporations indicated. The Bidder (contractor ) is responsible for all pricing with all subcontractors.</p> <p>The Bidder submits that in proposing the under mentioned subcontractors, the Bidder has consulted each and have ascertained to our completed satisfaction that those names are fully acquainted with the extent and nature of the work and that they will execute their work with the requirements of the contract documents.</p>		
<b>Work or services to be provided</b>	<b>Name and address of sub-contractor or person</b>	<b>Telephone</b>

<b>Name of Bidder:</b>	
------------------------	--



## SNOW LEOPARD HOLDING BUILDING COATINGS

### 002200- GENERAL INSTRUCTIONS

#### PART 1 – GENERAL

##### 1.1. Regulatory Documents

- 1.1.1. Nothing contained in the Drawings and Specifications shall be construed as to be in conflict with any law, by-law or regulation of the municipal, provincial or other authorities having jurisdiction. Work shall be performed in conformity with all such laws, by-laws and regulations.
- 1.1.2. Contract forms, codes, specifications, standards, manuals, and installation, application and maintenance instructions, referred to in these specifications are of the latest published editions at the date of signing the Contract.
- 1.1.3. Keep copies of the following on site:
  - 1.1.3.1. CSA Standard, CGSB Specifications, ASTM Designations, CISC documents and other standards referred to in the Specifications.
  - 1.1.3.2. Appropriate local Building By-Law and the Ontario Building Code.
  - 1.1.3.3. Applicable regulations of the Factory Inspector of Ontario, Underwriters Laboratories of Canada and other authorities having jurisdiction.

##### 1.2. Permits

- 1.2.1. Owner will apply and pay for the general building permit.
- 1.2.2. It shall be the responsibility of the Contractor to arrange and pay for and obtain all other permits, licences and approvals in connection with the Work from the authority having jurisdiction in each case.
- 1.2.3. Be responsible for ensuring that no work whatsoever is undertaken which is conditional on permits, approvals, guarantees, until certain that all conditions necessary to obtain these are met. No time extension will be allowed for delay in obtaining necessary permits.
- 1.2.4. Be responsible, to the Owner, for reporting any condition, in writing, which would prohibit granting of any permit or approval before any work affecting such items is commenced.

##### 1.3. Site and Documents

- 1.3.1. Examine the site, Drawings, Specifications and other Contract Documents, and become fully conversant with:
  - 1.3.1.1. Access to and from the site as determined by Toronto Zoo.

**SNOW LEOPARD HOLDING BUILDING COATINGS**

**002200- GENERAL INSTRUCTIONS**

- 1.3.1.2. Any obstacles on the site affecting access or work of the Contract.
- 1.3.1.3. Rights and interests which might be interfered with.
- 1.3.1.4. Total extent of the work and the conditions under which it will be performed.
- 1.3.2. Extent of work site is to be confirmed with Owner, outside of the work site limits shall not be used for any purpose unless approved by the Owner.
- 1.3.3. No claims for extra payment will be paid for extra work made necessary or for difficulties encountered due to conditions of the site which were visible for reasonably inferable from an examination of the site at the time prior to Tender closing dated and furthermore, failure of the Contractor to visit and examine the site shall be deemed a waiver of all claims for extra payment due to any condition of the site existing prior to Tender closing date.
- 1.3.4. Maintain at job site, one copy of the following
  - 1.3.4.1. Specifications and Drawings.
  - 1.3.4.2. Addenda.
  - 1.3.4.3. Change Orders.
  - 1.3.4.4. Other modifications to Contract.
  - 1.3.4.5. Copy of approved work schedule.
  - 1.3.4.6. Field Observation and Test Reports.
  - 1.3.4.7. Construction Permit.
- 1.4. Work Schedule
  - 1.4.1. Contractor will submit a detailed schedule within ten (10) days of the contract award and/or issuance of a purchase order.
  - 1.4.2. Contractor will provide a revised project schedule with each application for payment.
  - 1.4.3. Schedule must identify all divisions of work, major milestones, shop drawings and product submittals, approvals, long material/equipment deliveries and interdependencies.
  - 1.4.4. Schedule to be submitted in a format approved by the Zoo and its Consultants in both electronic and hard copy formats.

**SNOW LEOPARD HOLDING BUILDING COATINGS**

**002200– GENERAL INSTRUCTIONS**

- 1.4.5. No payments will be made until a schedule is submitted in an approved format and approved by the Zoo and its Consultants.
- 1.5. Schedule of Values
  - 1.5.1. Contractor will submit a detailed schedule of values at least fourteen (14) days before the first application for payment.
  - 1.5.2. Schedule of values must identify the complete works including each and every division of work, cash allowances, additional prices, change orders as approved, overhead costs and must total the approved contract value.
  - 1.5.3. No payments will be made until a Schedule of Values is submitted in an approved format and approved by the Zoo and its Consultants.
  - 1.5.4. See Section 01290 – Payment Procedures and General Conditions – Article 43.
- 1.6. Field Measurements
  - 1.6.1. Verify relevant field dimensions prior to commencement of installation of any work affected by these dimensions. Report discrepancies.
  - 1.6.2. Examine surfaces and structures underlying, or adjacent to, work to be installed or affecting work to be executed.
  - 1.6.3. Make good any conditions that adversely affect the work to be executed or installed.
  - 1.6.4. Commencement of work concerned implies acceptance of relevant conditions and no afterclaims based on these conditions will be entertained.
  - 1.6.5. Where field measurements are not available before fabrication is commenced, required dimensions shall be mutually agreed upon by trades concerned.
- 1.7. Laying Out
  - 1.7.1. Lay out main reference lines for the work and provide substantial stakes, batterboards or monuments to preserve lines and levels.
  - 1.7.2. Verify grades, lines, levels, dimensions and locations of hydrants, existing structures, manholes, overhead and buried utilities, roadways, sidewalks and similar items shown on the Drawings.
  - 1.7.3. Preserve and protect benchmarks, elevation datum and monuments and check periodically for accuracy until work is complete. Remove same as directed and make good site at completion.

## **SNOW LEOPARD HOLDING BUILDING COATINGS**

### **002200- GENERAL INSTRUCTIONS**

- 1.7.4. Necessary alterations due to conflict and interferences between trades shall be executed as directed at no cost to Owner.
- 1.8. Cutting and Patching
- 1.8.1. Cutting or patching of work: by trade specializing in work to be cut or patched.
- 1.8.2. Obtain Toronto Zoo's written permission before cutting, boring or sleeving any load bearing members, except where shown on Drawings.
- 1.8.3. Obtain approval of applicable trade before cutting holes.
- 1.8.4. Make cuts with smooth, true, clean edges. Fit units to tolerances established for best standard practice for applicable work or as specified. Make patches invisible in final assembly. Drilled holes shall be no larger than required.
- 1.8.5. Co-ordinate and accurately locate inserts, sleeves, connections and the like, required by all trades, or required by site conditions.
- 1.8.6. Trades installing items provided by other trades shall be responsible for compatibility of materials and security of installation. Conform with Shop Drawings and supplier's instructions.
- 1.9. Defective Work
- 1.9.1. Replacement of defective items shall be responsibility of installing trade if defect is due to faulty manufacture.
- 1.10. Protection
- 1.10.1. Be responsible for all affected portions of the site and structures and all damage, soiling and staining from time of occupation of this site until handing over of completed work to Owner: this applies to new and existing work.
- 1.10.2. Take necessary precautions and supply and install required coverings to protect material, work and finishes from contamination, damage, and weather conditions.
- 1.10.3. Make good any damage or replace damaged material as directed and at no cost to the Owner. Repairs shall be made by the trade having originally installed or fabricated the damaged material, finish or item.
- 1.10.4. Protect electrical equipment.
- 1.10.5. Protect adjacent private and all public property from damage and contamination.

**SNOW LEOPARD HOLDING BUILDING COATINGS****002200- GENERAL INSTRUCTIONS**

- 1.10.6. Protect curbs, sidewalks, lamp standards, hydrants, and similar existing items on or off site, from damage from trucking by means of boards or other approved methods.
  - 1.10.7. Mark clear glass after glazing in an acceptable manner, and leave markings in place until final clean-up.
  - 1.10.8. Protect floor finishes from construction traffic and transport of construction materials and equipment by adequate means, such as boarding, or other acceptable material. Install and maintain proper protection of finished surfaces of installed work.
- 1.11. Cleaning
- 1.11.1. As work progresses, remove excess of foreign materials droppings, spatters, which would set up or become difficult to remove from finished surfaces and leave in first class condition free from contaminants.
  - 1.11.2. As work progresses, clean up and remove from site, rubbish surplus materials and other debris resulting from the work of this Contract.
  - 1.11.3. See Section 01700 for final cleaning.
- 1.12. Existing Buried Services
- 1.12.1. Prior to the start of sitework and excavation, the Contractor shall confirm the precise location, type and depth of all services with the Toronto Zoo.
  - 1.12.2. Information provided by the Toronto Zoo to the contractor, including as-built drawings, with respect to the location of existing buried services shall be considered accurate to within 2 meters horizontal and 1 meter vertical.
  - 1.12.3. All excavation within two (2) metres of the underground services shall be by hand and carried out with extreme care. Ensure that the fill at the services is not disturbed.
  - 1.12.4. The Contractor shall be responsible for conducting final confirmation of the precise location of underground services prior to excavation.
  - 1.12.5. The Contractor shall make good any damage to the services to the complete satisfaction of the Owner. Such repairs/replacements shall be at no cost to the Owner.

END OF SECTION

**SNOW LEOPARD HOLDING BUILDING COATINGS**

**002200 – PAYMENT PROVISIONS**

**PART 1 - GENERAL**

**1.1 Section Includes**

- .1 Related sections
- .2 Applications for progress payment
- .3 Allowances
- .4 Products

**1.2 Related Sections**

- .1 01200 General Instructions

**1.3 Applications for Progress Payment**

- .1 Contractor shall date applications for payment last day of each month and ensure amount claimed is for value, proportionate to amount of Contract, of Work performed and Products delivered to Place of Work at that date.
- .2 Submit for approval to Zoo and Consultant, at least 14 days before first application for payment, schedule of values for parts of Work, identifying the complete works including each and every division of work, cash allowances, additional prices, change orders as approved, overhead costs, and must total the approved contract value., so as to facilitate Consultants and Zoo's evaluation of Contractors Applications for Payment.
- .3 Schedule of values shall follow the Contractors Breakdown of Application for Payment. Item number and Descriptions shall follow the specification sections and pricing forms.
- .4 The first application for payment shall include:
  - .1 Contractors invoice;
  - .2 Zoo approved Contractors schedule of values;
  - .3 WSIB clearance certificate dated within 10 days of the invoice date.
- .5 The second and subsequent application for payment shall include:
  - .1 Contractors invoice;
  - .2 Zoo approved Contractors schedule of values;
  - .3 WSIB clearance certificate dated within 10 days of the invoice date.
  - .4 Statutory Declaration as a sworn statement that all accounts for labour, subcontracts, Products, construction machinery and equipment, and other indebtedness which may have been incurred by the Contractor in the Work and for which the Owner might in any way be held responsible have been paid in full, except for amounts properly retained as a holdback or as an identified amount in dispute.
  - .5 Approved project schedule.

**SNOW LEOPARD HOLDING BUILDING COATINGS**

**002200 – PAYMENT PROVISIONS**

**1.4 Allowances**

- .1 Any allowances that are drawn upon during progress or final payments shall be included as follows:
  - .1 The invoices as supplied to the Contractor shall be attached to the Contractors Application for Payment. If the invoice is not attached, any claim on the Contractors Application for Payment shall be deducted from the Consultants Certificate of Payment.
  - .2 Allowance breakdowns shall be included as part of the schedule of values.

**PART 2 - PRODUCTS**

- .1 The following sample represents the typical information required on a submitted schedule of values.

Schedule of Values						Date:			Progress No.:		
Item No.	Description	Unit	Tender Quantity	Unit Rate	Amount	Quantity			Value		
						To Date	Previous	Current	To Date	Previous	Current
<b>Tender</b>											
1		Lump Sum /Sq.m/lin.m	#	\$	\$	%	%	%	\$	\$	\$
<b>Allowances</b>											
A1											
<b>Change Orders</b>											
CO1											
	SUB-TOTAL				Amount sum						Current Value sum
	7% GST										
	TOTAL				Amount Sum incl GST						
<b>Allowance Breakdown</b>											
			Quantity	Rate	Mark up	Amount					
A1	Labour 1	#	hrs	\$	%	\$					
	Labour 2		hrs								
	Materials		kg								
	Receipt										
	Other										
						Amount Sum					

**PART 3 - EXECUTION**

- .1 Not Used

**End of Section 01290 – Payment Procedures**

**SNOW LEOPARD HOLDING BUILDING COATINGS**

**002200 – QUALITY CONTROL**

**PART 1 – GENERAL**

1.1. General

- 1.1.1. Owner will retain the services of an Inspection and Testing Agency.
- 1.1.2. Inspection and Testing Agency shall perform all duties outlined herein including additional inspection and testing as directed.
- 1.1.3. Contractor and each of his sub-contractors, suppliers and manufacturers whose material and work is subject to inspection and testing, whether so specified or not, shall supply material, labour and facilities as required and necessary for the Inspection and Testing Agency to perform its work, provide full access to site and/or manufacturing plant, give all required notices for inspection and testing and provide full cooperation.
- 1.1.4. Inspection and testing specified or directed for any part of the work, material and manufactured items shall in no instance mitigate Contractor's, Sub-contractors', suppliers' or manufacturers' responsibility for his own supervision and conformance of work and materials to the Contract Documents.
- 1.1.5. Inspection and Testing Agency shall provide written report for each inspection and test made, one (1) copy to Owner, two (2) copies to Architect, three (3) copies to Contractor direct. Contractor shall forward one (1) copy to sub-contractor, supplier or manufacturer concerned.
- 1.1.6. Costs for inspection and testing, unless otherwise specified herein, will be covered by the Owner except for tests which show non-conformity to the Contract Documents. In the latter case inspection and testing costs shall be borne by the party at fault and the Owner may request further or additional inspection and testing.
- 1.1.7. Inspection and Testing procedures outlined herein are included for information only.

1.2. Reports

- 1.2.1. Submit report forms for approval.
- 1.2.2. Include the following:
  - 1.2.2.1. Date and time of inspection or test.
  - 1.2.2.2. Weather conditions and ambient air temperatures during the inspection.
  - 1.2.2.3. Mix proportions and methods, rate and method of application.
  - 1.2.2.4. Testing method employed by proper standard reference and specific paragraphs or other detailed identification as applicable.



**SNOW LEOPARD HOLDING BUILDING COATINGS**

**002200 – QUALITY CONTROL**

- 1.2.2.5. Inspection descriptions and details and other relevant information.
- 1.2.2.6. Test results in detail, complete with applicable graphs and other clarifying documents and information.
- 1.2.2.7. Printed name and signature of person having conducted inspection or test, and name, title and signature of supervisor having verified the report.

1.3. Density Tests

- 1.3.1. Make site density tests of crushed stone and other backfill materials after placing and compacting, at a rate and in locations, as directed.
- 1.3.2. Inspect backfill materials, make sieve analysis for all types of fill material specified.

1.4. Concrete

- 1.4.1. Tests as required by Section 03300, in order to confirm conformance with work and materials specified.

1.5. Miscellaneous

- 1.5.1. Test all materials specified to be tested or when so directed.
- 1.5.2. Testing materials shall be specified or as per approved proposal from the Inspection and Testing Agency and in accordance with acceptable and professionally recognized standards.

END OF SECTION

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Work by Owner.
4. Work under separate contracts.
5. Purchase contracts.
6. Owner-furnished products.
7. Work restrictions.
8. Specification and drawing conventions.
9. Miscellaneous provisions.

B. Related Requirements:

1. Division 01 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

A. Project Identification: RFQ #01 (2013-01) at the Toronto Zoo.

1. Project Location: 361 A Old Finch Avenue, Scarborough, ON M1B5K7.

B. Owner: Toronto Zoo.

1. Owner's Representative: Eric Morris.

C. Architect: CLR Design, Inc., 833 Chestnut Street, Philadelphia, PA 19107. Phone: 215-564-0250.

D. Architect's Consultants: The Architect has retained the following design professionals who have prepared designated portions of the Contract Documents:

1. Civil Engineering: Stantec Engineering.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

2. Structural Engineering: Morrison Hershfield.
3. MEP Engineering: Stantec Engineering.
4. Landscape: Landplan Collaborative Ltd.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. The project site is located in the north east section of the Toronto Zoo. Scope of work includes the supply of all labour, tools, materials and equipment necessary to complete the supply and installation of epoxy coatings on walls, floors, metal, etc. at the Snow Leopard Holding Building according to the quotation documents. Includes preparation of the existing surfaces, removal of existing coating by sandblasting, filling of cracks, seal, prime, and top coat all surfaces as per the quotation documents and in accordance with the Manufacturer's Specifications. Provide all necessary shop drawings.

B. Type of Contract:

1.5 Project will be constructed under coordinated, concurrent multiple contracts. WORK BY OWNER

A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

1.6 WORK UNDER SEPARATE CONTRACTS

A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.

1.7 WORK RESTRICTIONS

A. Work Restrictions, General: Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:

1. Notify Owner not less than 2 days in advance of proposed utility interruptions.

- C. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
  - 1. Notify Owner not less than 2 days in advance of proposed disruptive operations.
- D. Nonsmoking: Smoking is not permitted on project site. Smoking is only permitted in designated areas.
- E. Controlled Substances: Use of tobacco products and other controlled substances on the Zoo site is not permitted.

#### 1.8 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
  - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
  - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
  - 2. Abbreviations: Materials and products are identified abbreviations on Drawings.
  - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

#### 1.9 MISCELLANEOUS PROVISIONS

- A. Contractor to comply with strict requirements for perimeter fence/gate security
  - 1. Gates shall remain closed except for when walking or driving through them.
  - 2. Perimeter fencing must remain in place during construction.
  - 3. Contractor is responsible to immediately repair any fence they damage.
  - 4. Perimeter fencing is to be maintained between the project site and the ongoing Zoo operations to meet with requirements of the Associations of Zoos and Aquariums (AZA) and Occupational Health & Safety Act and regulations for Construction projects). (i.e. – Height requirements of 8', no more than 2" gap between ground and bottom fencing, no larger than 2' gap between fence panels, etc.)

RFQ #01 (2013-01)

Snow Leopard Holding Building Coatings

- B. Contractor to maintain a “family friendly” environment at the zoo. There will be no swearing, cat calling, smoking outside of designated areas, etc. Violators will be immediately removed from the site.
- C. Extreme care must be taken to avoid disruption of zoo animals. Work that must be performed in close proximity of animals must be carefully coordinated with zoo personnel.
- D. Contractor to help ensure the safety for zoo patrons. Contractor is responsible for barricading cones, signage, etc. as required to protect patrons around work area.
- E. Parking will be limited on site. Contractor to coordinate parking with Construction Manager/Owner.
- F. Contractor shall coordinate work near and in the waterway area with Owner. No unauthorized or unapproved work shall take place in this area.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

## SECTION 012500 - SUBSTITUTION PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
  - 1. Section 012300 "Alternates" for products selected under an alternate.
  - 2. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

#### 1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
  - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
  - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

#### 1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: Use facsimile of form provided at the end of this section.
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
    - b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.

Toronto Zoo RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
  - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
  - e. Samples, where applicable or requested.
  - f. Certificates and qualification data, where applicable or requested.
  - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
  - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
  - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
  - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
  - k. Cost information, including a proposal of change, if any, in the Contract Sum.
  - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
  - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
  - n. Engineering calculations sealed by a professional engineer licensed in the project jurisdiction.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

## 1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

Toronto Zoo RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

- a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- b. Requested substitution provides sustainable design characteristics that specified product provided.
- c. Substitution request is fully documented and properly submitted.
- d. Requested substitution will not adversely affect Contractor's construction schedule.
- e. Requested substitution has received necessary approvals of authorities having jurisdiction.
- f. Requested substitution is compatible with other portions of the Work.
- g. Requested substitution has been coordinated with other portions of the Work.
- h. Requested substitution provides specified warranty.
- i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

- B. Substitutions for Convenience: Not allowed unless otherwise indicated.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500



Project: \_\_\_\_\_ Substitution Request Number: \_\_\_\_\_  
\_\_\_\_\_  
From: \_\_\_\_\_  
To: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_  
A/E Project Number:  
Re: \_\_\_\_\_ Contract For: \_\_\_\_\_

Specification Title: \_\_\_\_\_ Description: \_\_\_\_\_  
Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

Proposed \_\_\_\_\_ Substitution: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_  
Installer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
History:  New product  1-4 years old  5-10 years old  More than 10 years old

Differences between proposed substitution and specified product: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Point-by-point comparative data attached — REQUIRED BY A/E

Reason for not providing specified item: \_\_\_\_\_  
\_\_\_\_\_

Proposed substitution affects other parts of Work:  No  Yes; explain \_\_\_\_\_  
\_\_\_\_\_

Savings to Owner for accepting substitution: \_\_\_\_\_ (\$ \_\_\_\_\_).

Proposed substitution changes Contract Time:  No  Yes [Add] [Deduct] \_\_\_\_\_ days.

Supporting Data Attached:  Drawings  Product Data  Samples  Tests  Reports  \_\_\_\_\_

**(Substitution After the Bidding/Negotiating Phase — Continued)**

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: \_\_\_\_\_

Signed by: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

Attachments:

---

**A/E's REVIEW AND RECOMMENDATION**

- Approve Substitution - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- Approve Substitution as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- Reject Substitution - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

---

**OWNER'S REVIEW AND ACTION**

- Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures. Prepare Change Order.
- Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures. Prepare Change Order.
- Substitution rejected - Use specified materials.

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

---

Additional Comments:     Contractor     Subcontractor     Supplier     Manufacturer     A/E  
 Other:

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. General coordination procedures.
  - 2. Coordination drawings.
  - 3. Requests for Information (RFIs).
  - 4. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.
- C. Related Requirements:
  - 1. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
  - 2. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
  - 3. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

- A. RFI: Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use CSI Form 1.5A. Include the following information in tabular form:
  - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
  - 2. Number and title of related Specification Section(s) covered by subcontract.
  - 3. Drawing number and detail references, as appropriate, covered by subcontract.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.
  - 1. Post copies of list in project meeting room, in temporary field office, on Project Web site, and by each temporary telephone. Keep list current at all times.

1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
  - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
  - 1. Preparation of Contractor's construction schedule.
  - 2. Preparation of the schedule of values.
  - 3. Installation and removal of temporary facilities and controls.
  - 4. Delivery and processing of submittals.
  - 5. Progress meetings.
  - 6. Preinstallation conferences.
  - 7. Project closeout activities.
  - 8. Startup and adjustment of systems.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

1.6 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
    - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
    - b. Coordinate the addition of trade-specific information to the coordination drawings by multiple contractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
    - c. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
    - d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
    - e. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
    - f. Indicate required installation sequences.
    - g. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:
1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
  2. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
  3. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
  4. Mechanical and Plumbing Work: Show the following:

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- a. Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems.
  - b. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment.
  - c. Fire-rated enclosures around ductwork.
5. Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will so inform Contractor, who shall make changes as directed and resubmit.
- C. Coordination Digital Data Files: Prepare coordination digital data files according to the following requirements:
1. File Preparation Format: Same digital data software program, version, and operating system as original Drawings.
  2. File Preparation Format: DWG, Version, operating in Microsoft Windows operating system.
  3. File Submittal Format: Submit or post coordination drawing files using format same as file preparation format.

1.7 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
  2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
  2. Project number.
  3. Date.
  4. Name of Contractor.
  5. Name of Architect.
  6. RFI number, numbered sequentially.
  7. RFI subject.
  8. Specification Section number and title and related paragraphs, as appropriate.
  9. Drawing number and detail references, as appropriate.
  10. Field dimensions and conditions, as appropriate.
  11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  12. Contractor's signature.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
  - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: AIA Document G716.
  1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
  1. The following Contractor-generated RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for approval of Contractor's means and methods.
    - d. Requests for coordination information already indicated in the Contract Documents.
    - e. Requests for adjustments in the Contract Time or the Contract Sum.
    - f. Requests for interpretation of Architect's actions on submittals.
    - g. Incomplete RFIs or inaccurately prepared RFIs.
  2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
  3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Use CSI Log Form 13.2B. Include the following:
  1. Project name.
  2. Name and address of Contractor.
  3. Name and address of Architect.
  4. RFI number including RFIs that were returned without action or withdrawn.
  5. RFI description.
  6. Date the RFI was submitted.
  7. Date Architect's response was received.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
2. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

1.8 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
  1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
  2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Architect and/or Owner will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
  1. Conduct the conference to review responsibilities and personnel assignments.
  2. Attendees: Authorized representatives of Owner, Owner's Commissioning Authority, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  3. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Tentative construction schedule.
    - b. Phasing.
    - c. Critical work sequencing and long-lead items.
    - d. Designation of key personnel and their duties.
    - e. Lines of communications.
    - f. Procedures for processing field decisions and Change Orders.
    - g. Procedures for RFIs.
    - h. Procedures for testing and inspecting.
    - i. Submittal procedures.
    - j. Use of the premises and existing building.
    - k. Work restrictions.
    - l. Working hours.
    - m. Owner's occupancy requirements.
    - n. Responsibility for temporary facilities and controls.
    - o. Procedures for moisture and mold control.
    - p. Procedures for disruptions and shutdowns.
    - q. Construction waste management and recycling.
    - r. Parking availability.



RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- s. Security.
  4. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect, and Owner's Commissioning Authority of scheduled meeting dates.
  2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
    - a. Deliveries.
    - b. Submittals.
    - c. Time schedules.
    - d. Warranty requirements.
    - e. Compatibility of materials.
    - f. Acceptability of substrates.
    - g. Testing and inspecting requirements.
    - h. Protection of adjacent work.
  3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
  4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
  5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Project Closeout Conference: Schedule and conduct a project closeout conference, at a time convenient to Owner and Architect, but no later than 90 days prior to the scheduled date of Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
  2. Attendees: Authorized representatives of Owner, Owner's Commissioning Authority, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
  3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
    - a. Preparation of record documents.
    - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
    - c. Submittal of written warranties.
    - d. Preparation of Contractor's punch list.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- e. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
  - f. Responsibility for removing temporary facilities and controls.
4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- E. Progress Meetings: Conduct progress meetings at biweekly intervals.
- 1. Coordinate dates of meetings with preparation of payment requests.
  - 2. Attendees: In addition to representatives of Owner, Owner's Commissioning Authority and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
  - 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
      - 1) Review schedule for next period.
    - b. Review present and future needs of each entity present, including the following:
      - 1) Status of submittals.
      - 2) Deliveries.
      - 3) Access.
      - 4) Temporary facilities and controls.
      - 5) Progress cleaning.
      - 6) Quality and work standards.
      - 7) Field observations.
      - 8) Status of RFIs.
      - 9) Pending changes.
      - 10) Documentation of information for payment requests.
  - 4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
    - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

## SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  - 1. Preconstruction photographs.
  - 2. Periodic construction photographs.
  - 3. Final completion construction photographs.
- B. Related Requirements:
  - 1. Section 013300 "Submittal Procedures" for submitting photographic documentation.
  - 2. Section 017700 "Closeout Procedures" for submitting photographic documentation as project record documents at Project closeout.
  - 3. Section 024119 "Selective Demolition" for photographic documentation before selective demolition operations commence.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For photographer.
- B. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.
- C. Digital Photographs: Submit image files within three days of taking photographs.
  - 1. Digital Camera: Minimum sensor resolution of 8 megapixels.
  - 2. Format: Minimum 3200 by 2400 pixels, in unaltered original files, with same aspect ratio as the sensor, uncropped, date and time stamped, in folder named by date of photograph, accompanied by key plan file.
  - 3. Identification: Provide the following information with each image description in file metadata tag:
    - a. Name of Project.
    - b. Name of Contractor.
    - c. Date photograph was taken.
    - d. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.

Toronto Zoo RFQ #01 (2013-01)  
Snow Leopard Hodling Building Coatings

1.4 QUALITY ASSURANCE

- A. Photographer Qualifications: An individual who has been regularly engaged as a professional photographer of construction projects for not less than three years.

1.5 USAGE RIGHTS

- A. Obtain and transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

- A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of 8 megapixels, and at an image resolution of not less than 3200 by 2400 pixels.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

- A. Photographer: Engage a qualified photographer to take construction photographs.
- B. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.
  - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- C. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
  - 1. Date and Time: Include date and time in file name for each image.
  - 2. Field Office Images: Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Architect.
- D. Preconstruction Photographs: Before commencement of excavation commencement of demolition starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect .
  - 1. Take 20 photographs to show existing conditions adjacent to property before starting the Work.
  - 2. Take 20 photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.

Toronto Zoo RFQ #01 (2013-01)  
Snow Leopard Hodling Building Coatings

- E. Periodic Construction Photographs: Take 20 photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.
- F. Architect -Directed Construction Photographs: From time to time, Architect will instruct photographer about number and frequency of photographs and general directions on vantage points. Select actual vantage points and take photographs to show the status of construction and progress since last photographs were taken.
- G. Final Completion Construction Photographs: Take 20 color photographs after date of Substantial Completion for submission as project record documents. Architect will inform photographer of desired vantage points.
  - 1. Do not include date stamp.

END OF SECTION 013233

## SECTION 013300 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
  - 1. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

#### 1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

#### 1.4 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
  - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
4. Format: Arrange the following information in a tabular format:
  - a. Scheduled date for first submittal.
  - b. Specification Section number and title.
  - c. Submittal category: Action; informational.
  - d. Name of subcontractor.
  - e. Description of the Work covered.
  - f. Scheduled date for Architect's and Construction Manager's final release or approval.
  - g. Scheduled date of fabrication.
  - h. Scheduled dates for purchasing.
  - i. Scheduled dates for installation.
  - j. Activity or event number.

#### 1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic digital data files of the Contract Drawings will not be provided by Architect for Contractor's use in preparing submittals.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
  3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
  4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
    - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.



RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
  3. Resubmittal Review: Allow 15 days for review of each resubmittal.
  4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 21 days for initial review of each submittal.
  5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 15 days for review of each submittal. Submittal will be returned to owner before being returned to Contractor.
- D. Paper Submittals: Place a permanent label or title block on each submittal item for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
  2. Provide a space approximately 150 by 200 mm on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
  3. Include the following information for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Contractor.
    - e. Name of subcontractor.
    - f. Name of supplier.
    - g. Name of manufacturer.
    - h. Submittal number or other unique identifier, including revision identifier.
      - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).
  4. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- a. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.
5. Transmittal for Paper Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return without review submittals received from sources other than Contractor.
- a. Transmittal Form for Paper Submittals: Use AIA Document G810 .
  - b. Transmittal Form for Paper Submittals: Provide locations on form for the following information:
    - 1) Project name.
    - 2) Date.
    - 3) Destination (To:).
    - 4) Source (From:).
    - 5) Name and address of Architect.
    - 6) Name of Construction Manager.
    - 7) Name of Contractor.
    - 8) Name of firm or entity that prepared submittal.
    - 9) Names of subcontractor, manufacturer, and supplier.
    - 10) Category and type of submittal.
    - 11) Submittal purpose and description.
    - 12) Specification Section number and title.
    - 13) Specification paragraph number or drawing designation and generic name for each of multiple items.
    - 14) Drawing number and detail references, as appropriate.
    - 15) Indication of full or partial submittal.
    - 16) Transmittal number, numbered consecutively.
    - 17) Submittal and transmittal distribution record.
    - 18) Remarks.
    - 19) Signature of transmitter.
- E. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
  2. Name file with submittal number or other unique identifier, including revision identifier.
    - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
  3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

4. Transmittal Form for Electronic Submittals: Use software-generated form from electronic project management software or electronic form acceptable to Owner, containing the following information:
    - a. Project name.
    - b. Date.
    - c. Name and address of Architect.
    - d. Name of Construction Manager.
    - e. Name of Contractor.
    - f. Name of firm or entity that prepared submittal.
    - g. Names of subcontractor, manufacturer, and supplier.
    - h. Category and type of submittal.
    - i. Submittal purpose and description.
    - j. Specification Section number and title.
    - k. Specification paragraph number or drawing designation and generic name for each of multiple items.
    - l. Drawing number and detail references, as appropriate.
    - m. Location(s) where product is to be installed, as appropriate.
    - n. Related physical samples submitted directly.
    - o. Indication of full or partial submittal.
    - p. Transmittal number, numbered consecutively.
    - q. Submittal and transmittal distribution record.
    - r. Other necessary identification.
    - s. Remarks.
  5. Metadata: Include the following information as keywords in the electronic submittal file metadata:
    - a. Project name.
    - b. Number and title of appropriate Specification Section.
    - c. Manufacturer name.
    - d. Product name.
- F. Options: Identify options requiring selection by Architect.
- G. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
  2. Note date and content of revision in label or title block and clearly indicate extent of revision.
  3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
  - 1. Post electronic submittals as PDF electronic files directly to Project Web site specifically established for Project.
    - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
  - 2. Submit electronic submittals via email as PDF electronic files.
    - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
  - 3. Action Submittals: Submit three paper copies of each submittal unless otherwise indicated. Architect will return two copies.
  - 4. Informational Submittals: Submit two paper copies of each submittal unless otherwise indicated. Architect will not return copies.
  - 5. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
    - a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
    - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
  - 2. Mark each copy of each submittal to show which products and options are applicable.
  - 3. Include the following information, as applicable:

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- a. Manufacturer's catalog cuts.
  - b. Manufacturer's product specifications.
  - c. Standard color charts.
  - d. Statement of compliance with specified referenced standards.
  - e. Testing by recognized testing agency.
  - f. Application of testing agency labels and seals.
  - g. Notation of coordination requirements.
  - h. Availability and delivery time information.
4. For equipment, include the following in addition to the above, as applicable:
- a. Wiring diagrams showing factory-installed wiring.
  - b. Printed performance curves.
  - c. Operational range diagrams.
  - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
5. Submit Product Data before or concurrent with Samples.
6. Submit Product Data in the following format:
- a. PDF electronic file.
  - b. Two paper copies of Product Data unless otherwise indicated. Architect will return one copy.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Identification of products.
    - b. Schedules.
    - c. Compliance with specified standards.
    - d. Notation of coordination requirements.
    - e. Notation of dimensions established by field measurement.
    - f. Relationship and attachment to adjoining construction clearly indicated.
    - g. Seal and signature of professional engineer if specified.
  2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 215 by 280 mm, but no larger than 750 by 1067 mm.
  3. Submit Shop Drawings in the following format:
    - a. PDF electronic file.
    - b. Two opaque (bond) copies of each submittal. Architect will return one copy.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
2. Identification: Attach label on unexposed side of Samples that includes the following:
  - a. Generic description of Sample.
  - b. Product name and name of manufacturer.
  - c. Sample source.
  - d. Number and title of applicable Specification Section.
  - e. Specification paragraph number and generic name of each item.
3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
  - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
  - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
  - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
  - a. Number of Samples: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record sample.
    - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
    - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
  - 1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
  - 2. Manufacturer and product name, and model number if applicable.
  - 3. Number and name of room or space.
  - 4. Location within room or space.
  - 5. Submit product schedule in the following format:
    - a. PDF electronic file.
    - b. Two paper copies of product schedule or list unless otherwise indicated. Architect will return one copy.
- F. Coordination Drawing Submittals: Comply with requirements specified in Section 013100 "Project Management and Coordination."
- G. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Section 014000 "Quality Requirements."
- H. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
- I. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- J. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- K. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- L. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- M. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- N. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- O. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- P. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- Q. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
  - 1. Name of evaluation organization.
  - 2. Date of evaluation.
  - 3. Time period when report is in effect.
  - 4. Product and manufacturers' names.
  - 5. Description of product.
  - 6. Test procedures and results.
  - 7. Limitations of use.
- R. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- S. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- T. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- U. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

## 2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
  - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file paper copies of certificate, signed and sealed by the responsible design professional, for each product and



RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

system specifically assigned to Contractor to be designed or certified by a design professional licensed in the local jurisdiction.

1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 017700 "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may be returned by the Architect without action.

END OF SECTION 013300

## SECTION 014000 - QUALITY REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
  - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
  - 3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, Commissioning Authority, or authorities having jurisdiction are not limited by provisions of this Section.

#### 1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Mockups: Full-size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.

1. Laboratory Mockups: Full-size physical assemblies constructed at testing facility to verify performance characteristics.
  2. Integrated Exterior Mockups: Mockups of the exterior envelope erected separately from the building but on Project site, consisting of multiple products, assemblies, and subassemblies.
  3. Room Mockups: Mockups of typical interior spaces complete with wall, floor, and ceiling finishes, doors, windows, millwork, casework, specialties, furnishings and equipment, and lighting.
- D. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.
- E. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- F. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
- G. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- I. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- J. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

#### 1.4 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 ACTION SUBMITTALS

A. Shop Drawings: For integrated exterior laboratory mockups, provide plans, sections, and elevations, indicating materials and size of mockup construction.

1. Indicate manufacturer and model number of individual components.
2. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.

1.6 INFORMATIONAL SUBMITTALS

A. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

B. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Specification Section number and title.
2. Entity responsible for performing tests and inspections.
3. Description of test and inspection.
4. Identification of applicable standards.
5. Identification of test and inspection methods.
6. Number of tests and inspections required.
7. Time schedule or time span for tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

1.7 REPORTS AND DOCUMENTS

A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
  12. Name and signature of laboratory inspector.
  13. Recommendations on retesting and re-inspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of technical representative making report.
  2. Statement on condition of substrates and their acceptability for installation of product.
  3. Statement that products at Project site comply with requirements.
  4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
  5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
  6. Statement whether conditions, products, and installation will affect warranty.
  7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of factory-authorized service representative making report.
  2. Statement that equipment complies with requirements.
  3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
  4. Statement whether conditions, products, and installation will affect warranty.
  5. Other required items indicated in individual Specification Sections.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.8 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- D. **Installer Qualifications:** A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. **Professional Engineer Qualifications:** A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.
- F. **Specialists:** Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
  - 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. **Testing Agency Qualifications:** An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329 ; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
  - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
  - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. **Manufacturer's Technical Representative Qualifications:** An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. **Factory-Authorized Service Representative Qualifications:** An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. **Preconstruction Testing:** Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
  - 1. Contractor responsibilities include the following:
    - a. Provide test specimens representative of proposed products and construction.
    - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
    - c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
    - d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
  - f. When testing is complete, remove test specimens, assemblies, and mockups, and laboratory mockups; do not reuse products on Project.
2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect and Commissioning Authority, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- K. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
  2. Notify Architect seven days in advance of dates and times when mockups will be constructed.
  3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at Project.
  4. Demonstrate the proposed range of aesthetic effects and workmanship.
  5. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
    - a. Allow seven days for initial review and each re-review of each mockup.
  6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
  7. Demolish and remove mockups when directed unless otherwise indicated.

## 1.9 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
  2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

2. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
    - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
  3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
  4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. **Manufacturer's Field Services:** Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."
- D. **Manufacturer's Technical Services:** Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in pre-installation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- E. **Retesting/Re-inspecting:** Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- F. **Testing Agency Responsibilities:** Cooperate with Architect, Commissioning Authority and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
  1. Notify Architect, Commissioning Authority, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
  3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
  4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
  5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
  6. Do not perform any duties of Contractor.
- G. **Associated Services:** Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:



RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  4. Facilities for storage and field curing of test samples.
  5. Delivery of samples to testing agencies.
  6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  7. Security and protection for samples and for testing and inspecting equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Coordinate and submit concurrently with Contractor's construction schedule. Update as the Work progresses.
1. Distribution: Distribute schedule to Owner, Architect, Commissioning Authority, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.10 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Owner will engage a qualified testing agency special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
1. Date test or inspection was conducted.
  2. Description of the Work tested or inspected.
  3. Date test or inspection results were transmitted to Architect.
  4. Identification of testing agency or special inspector conducting test or inspection.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's, Commissioning Authority's, reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

SECTION 015000 - TEMPORARY FACILITIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 OFFICES

- A. See Section III - General Conditions, Article 37.
- B. Install and pay for an adequate telephone service having separate instrument and number for Toronto Zoo's use. Pay all accounts chargeable to the work so long as it is in progress. Equip telephone with outside bell.
- C. Contractor trailers with telephones shall be located in areas to be determined by zoo direction.

1.3 STORAGE SHEDS

- A. Provide sheds required for the storage of materials. Material store on the site must be protected by tarpaulins or other approved covering. All materials stored on the job to be located to approval of the Owner and generally concealed from public view.
- B. Sheds for the storage of cement, lime and other perishable goods and articles, including hardware and finished millwork, shall be of ample size for the purpose, built with tight wooden floors, weatherproof walls and roofs, and provided with doors fitted with locks.
- C. Storage of items to be re-used:
  - 1. Storage and safekeeping of existing items, equipment or materials temporarily dismantled and scheduled to be re-used or reinstalled shall be the responsibility of the General Contractor.
  - 2. Storage sheds must be located within the area of hoarding as directed by the Owner.

1.4 MAINTENANCE

- A. Clean interior of office daily.
- B. Paint temporary sheds and offices after erection and as necessary during progress of job.
- C. Remove temporary sheds and offices when directed by Toronto Zoo and clear away. Provide equal enclosed facilities in building thereafter.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

1.5 TOILETS

- A. See General Conditions - Schedule "C" - Article 37, and note that toilets shall be of chemical type conforming with the requirements of authorities having jurisdiction, maintained in sanitary condition for the duration of Contract.
- B. Chemical toilets are for the use of all persons on the work.
- C. Use of permanent toilets will not be permitted.
- D. Prominent notices shall be displayed warning men of the site to use conveniences provided.
- E. Clean and disinfect site of toilets after their removal.
- F. Contractor to provide toilet at each construction area.

1.6 WATER

- A. See Section III- General Conditions, -Article 34.

1.7 HEAT

- A. Be responsible for the provision of temporary heat and ventilation required for construction and completion of the work.
- B. Maintain minimum temperature of 10oC or as necessary for this type of construction, either as defined in the Trade Sections of this Specification or as approved by the Toronto Zoo. Provide necessary enclosures to maintain required environment and adequate ventilation.
- C. Equipment used for temporary heating and associated services shall be approved by Toronto Zoo and authorities having jurisdiction prior to delivery and installation. Salamanders will not be permitted. Heating devices shall be vented to open air. Requests for approval shall give full details of proposed equipment and method of venting.
- D. Permanent system shall not be used for temporary heating, without the approval of the Zoo Management.

1.8 POWER AND LIGHT

- A. Provide temporary light and power required for the entire work of all trades, including lamps, wiring and similar equipment. Extension cords shall be provided by those requiring them.

1.9 HOARDING AND BARRICADES

- A. Erect and maintain, for duration of Contract, a construction fence with a minimum height of 1.5 m and provide gate or gates as required, to have a clearance of 4 metres.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- B. Erect all barricades required by authorities to protect public and persons engaged on the work, from injury. Gates to be fastened securely to posts implanted in ground and to be hinged and locked.
- C. Materials used shall be new. Fence shall enclose entire work area.
- D. Remove fence and gate at completion of Contract.

1.10 PLANT MACHINERY

- A. Provide formwork, scaffolding, ladders, cranes, derricks, tackle, gangways, planks, fans, screen, gantries, tarpaulins, tools and machinery for the proper execution of the work.
- B. Erect scaffolding without damage to the structure of finishes, or move to suit installation of work of required trades, and promptly remove at completion.

1.11 SIDEWALK PROTECTION AND MAINTENANCE

- A. Damage to walkways, roadways, trees, landscaped areas and to other existing on and off site structures, arising from work of this Contract shall be made good at no cost to Owner and to Owner's satisfaction.

1.12 TREE PROTECTION

- A. Accept all costs and responsibility for any injury or damages to the existing trees on the property which may be caused by work of this Contract.
- B. Trees on roadways or boulevards not shown to be removed shall be protected from all damage during construction period. Root system required to be partially removed shall be pruned only by a tree surgeon.
- C. In the event of injury or damage, tree replacement evaluation to be measured by the Ontario Shade Tree Formula.

1.13 FIRE PROTECTION

- A. Take necessary fire precaution and provide protection required by Authorities having jurisdiction.

1.14 SITE LIGHTING

- A. Guard Lights - provide and maintain guard lights at all barricades, railings, obstructions and at all trenches or pits adjacent to roads or works.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- B. Provide other suitable lighting as required to adequately light the site for security and working conditions.

1.15 LOCK PREMISES

- A. During construction period, premises shall be securely locked after working hours. One set of keys for locks shall be furnished to the Owner. Close-in windows and all other openings.

1.16 SNOW REMOVAL

- A. Accept all cost and responsibility for snow removal within the work site limits. Remove snow to an area approved by the Toronto Zoo.

1.17 CONSTRUCTION AIDS

- A. Building Enclosure: Include in the Work temporary enclosure for building as required to protect it, in its entirety or in its parts, against the elements, to maintain environmental conditions required for work within the enclosure, and to prevent damage to materials stored within. Design enclosure that are structurally self sufficient and that do not overload the building structure. Keep surfaces of enclosures free of snow and ice to avoid overloading of building structure. Erect enclosure to allow complete accessibility for installation of materials during the time enclosures remain in place.
- B. Scaffolding: Erect scaffolds clear of walls, and ensure that they do not interfere with continuing work.
- C. Each user of scaffolding shall be responsible for its examination for sufficiency before using it.

END OF SECTION 015000

## SECTION 017117 - ANIMAL MANAGEMENT REQUIREMENTS OF CONSTRUCTION

### PART 1 - GENERAL

#### 1.1 SCOPE OF WORK

- A. Animal Management requirements of construction are indicated at various areas of the Construction Documents. These requirements are general in nature, and indicate universal type details required to be constructed as part of the Base Contract Price for this Project. Inclusive of these requirements, the general contractor and all sub-contractors shall, as part of the Base Contract Price, do the following:
1. Hide all conduit, pipes, water lines, cables, utility lines, etc., or other loose construction at the minimum distances indicated in the Contract Documents, to avoid animal contact. Where this is not possible, the specified guard plates, or other protective devices shall be installed at no additional costs to the Base Contract Price.
  2. Animals have been known to injure themselves due to items left in exhibit spaces. Each contractor is responsible for regularly removing all construction debris in compliance with this requirement for work in his/her area including, but not limited to nails, screws, wire, wood & metal scraps, welding rods, and other small fasteners or miscellaneous items.
  3. Provide the special animal management requirements of construction wherever required as shown in the drawings, or written into these Specifications.
- B. The intent of these requirements is to ensure that the Owner obtains a facility in which zoo personnel and animals may interact safely for the betterment of the entire exhibit. These requirements are not intended to cover all conditions that may arise during construction and the Contractor shall cooperate with the Owner and Architect during construction.
- C. The General contractor shall recognize that this facility is of unique construction and shall at all times take precautions to minimize the use of the Animal Management requirements as much as possible by thorough coordination of all the sub-trades involved, and thorough coordination of placement of all Work prior to installation throughout the Project, to minimize contact with the animals.

### PART 2 - PRODUCTS

#### 2.1 DETAILED PRODUCTS

- A. Provide the materials shown in the drawings and notes where conditions require their respective use.

### PART 3 - EXECUTION

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

3.1 INSTALLATION

- A. Install all required items and/or perform all required work to create uniform and consistent condition to the requirements of the Animal Management notes and details.

END OF SECTION



SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. Installation of the Work.
4. Cutting and patching.
5. Coordination of Owner-installed products.
6. Progress cleaning.
7. Protection of installed construction.
8. Correction of the Work.

- B. Related Requirements:

1. Section 011000 "Summary" for limits on use of Project site.
2. Section 013300 "Submittal Procedures" for submitting surveys.
3. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
4. Section 024119 "Selective Demolition" for demolition and removal of selected portions of the building.

1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.4 INFORMATIONAL SUBMITTALS

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- A. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.
- B. Final Property Survey: Submit 3 copies showing the Work performed and record survey data.

1.5 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
  - 1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
  - 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
  - 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
  - 4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- C. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.
- D. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- A. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
  - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
  - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
  - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
  - 1. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

#### 3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."
- E. Surface and Substrate Preparation: Comply with manufacturer's written recommendations for preparation of substrates to receive subsequent work.

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
  - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
  - 2. Establish limits on use of Project site.
  - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
  - 4. Inform installers of lines and levels to which they must comply.
  - 5. Check the location, level and plumb, of every major element as the Work progresses.
  - 6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
  - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

### 3.4 FIELD ENGINEERING

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
  - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect before proceeding.
  - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
  
- B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
  - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
  - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
  - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

### 3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb and make horizontal work level.
  - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
  - 4. Maintain minimum headroom clearance of 2440 mm in occupied spaces and 2300 mm in unoccupied spaces.
  
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
  
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
  
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
  
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
  
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  - 2. Allow for building movement, including thermal expansion and contraction.
  - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Section 011000 "Summary."

- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  3. Concrete : Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
  5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  6. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
    - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    - b. Restore damaged pipe covering to its original condition.
  3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
  4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction personnel.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction personnel.
  1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
  2. Preinstallation Conferences: Include Owner's construction personnel at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction personnel if portions of the Work depend on Owner's construction.

3.8 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
  1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 27 deg C.
  3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
    - a. Use containers intended for holding waste materials of type to be stored.
  4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  1. Remove liquid spills promptly.
  2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.



RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- D. **Installed Work:** Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. **Concealed Spaces:** Remove debris from concealed spaces before enclosing the space.
- F. **Exposed Surfaces in Finished Areas:** Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. **Waste Disposal:** Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 015000 "Temporary Facilities and Controls." Section 017419 "Construction Waste Management and Disposal."
- H. **During handling and installation,** clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. **Clean and provide maintenance on completed construction** as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. **Limiting Exposures:** Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. **Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.**
- B. **Comply with manufacturer's written instructions for temperature and relative humidity.**

END OF SECTION 017300

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
- B. Related Requirements:
  1. Section 024116 "Site Demolition" for disposition of waste resulting from partial demolition site improvements.
  2. Structural drawings general notes for disposal requirements for masonry waste.
  3. Section 311000 "Site Preparation" for disposition of waste resulting from site clearing and removal of above- and below-grade improvements.

1.3 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.4 QUALITY ASSURANCE

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

1.5 WASTE MANAGEMENT PLAN

- A. General: Develop a waste management plan according to ASTM E 1609 and requirements in this Section. Plan shall consist of waste identification, waste reduction work plan, and cost/revenue analysis. Distinguish between demolition and construction waste. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of site-clearing waste generated by the Work. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
  - 1. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location where materials separation will be performed.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
  - 1. Comply with operation, termination, and removal requirements in Section 015000 "Temporary Facilities and Controls."
- B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.
  - 1. Distribute waste management plan to everyone concerned within three days of submittal return.
  - 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

RFQ #01 (2013-01)

Snow Leopard Holding Building Coatings

1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
2. Comply with Section 015000 "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

END OF SECTION 017419

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1. Substantial Completion procedures.
  - 2. Final completion procedures.
  - 3. Final cleaning.
- B. Related Requirements:
  - 1. Section 017300 "Execution" for progress cleaning of Project site.
  - 2. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.3 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.5 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

## RFQ #01 (2013-01)

### Snow Leopard Holding Building Coatings

1. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
  2. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
- C. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  2. Results of completed inspection will form the basis of requirements for final completion.

#### 1.6 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
1. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

#### 1.7 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use CSI Form 14.1A.
1. Organize list of spaces in sequential order, starting with exterior areas first .
  2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
  3. Include the following information at the top of each page:

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

- a. Project name.
- b. Date.
- c. Name of Architect.
- d. Name of Contractor.

1.8 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
  1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 215-by-280-mm paper.
  2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
  4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
  1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
    - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
    - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
    - c. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
    - d. Sweep concrete floors broom clean in unoccupied spaces.
    - e. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
    - f. Leave Project clean and ready for occupancy.
- C. Construction Waste Disposal: Comply with waste disposal requirements in Section 015000 Section 017419 "Construction Waste Management and Disposal."

END OF SECTION 017700



RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

SECTION 099600 -HIGH-PERFORMANCE COATINGS

PART 1 -GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes surface preparation and application of high-performance coating systems on the following substrates:
  - 1. Exterior Substrates:
    - a. Concrete, vertical surfaces.
    - b. Galvanized metal.
  - 2. Interior Substrates:
    - a. Concrete, vertical and horizontal surfaces.
    - b. Steel.
    - c. Galvanized metal.
    - d. Aluminum (not anodized or otherwise coated).
    - e. Gypsum board.
- B. Related Requirements:
  - 1 See structural drawings general notes for precast, cast in place concrete, and steel framing.
  - 2 Division 23 "Hangers and Supports for HVAC piping and equipment."
  - 3 Division 23 "HVAC Ducts and Casings."
  - 4 Division 22 "Hangers and Supports for Plumbing, Piping, and Equipment."
  - 5 Division 21 "Fire Protection Basic Materials and Methods."
  - 6 Division 8 "Hollow Metal Doors and Frames."

1.3 DEFINITIONS

- A. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
- B. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

RFQ #01 (2013-01)  
Snow Leopard Holding Building Coatings

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include preparation requirements and application instructions.
- B. Samples for Initial Selection: For each type of topcoat product indicated.
- C. Samples for Verification: For each type of coating system and in each color and gloss of topcoat indicated.
  - 1 Submit Samples on rigid backing, 200 mm square.
  - 2 Step coats on Samples to show each coat required for system.
  - 3 Label each coat of each Sample.
  - 4 Label each Sample for location and application area.
- D. Product List: For each product indicated, include the following:
  - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.

1.5 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each coating system indicated to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
  - 1. Architect will select one surface to represent surfaces and conditions for application of each coating system specified in Part 3.
    - a. Wall and Ceiling Surfaces: Provide samples of at least 9 sq. m.
    - b. Other Items: Architect will designate items or areas required.
  - 2. Final approval of color selections will be based on mockups.
    - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
  - 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  - 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 7 deg C.

RFQ #01 (2013-01)

Snow Leopard Holding Building Coatings

- 1 Maintain containers in clean condition, free of foreign materials and residue.
- 2 Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

- A. Apply coatings only when temperature of surfaces to be coated and surrounding air temperatures are between 10 and 35 deg C.
- B. Do not apply coatings when relative humidity exceeds 85 percent; at temperatures less than 3 deg C above the dew point; or to damp or wet surfaces.
- C. Do not apply exterior coatings in snow, rain, fog, or mist.

PART 2 -PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1 Basis of Design: Benjamin Moore & Co.
  - 2 Sherwin-Williams Company (The).
  - 3 Ameron Coatings
  - 4 Stainless Steel Coatings, Inc.
- B. Products: Subject to compliance with requirements, provide one of the products listed in other Part 2 articles for the paint category indicated.

2.2 HIGH-PERFORMANCE COATINGS, GENERAL

- A. Material Compatibility:
  1. Provide materials for use within each coating system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
  2. For each coat in a coating system, provide products recommended in writing by manufacturers of topcoat for use in coating system and on substrate indicated.
  3. Provide products of same manufacturer for each coat in a coating system.
- B. VOC Content: Products shall comply with VOC limits of authorities having jurisdiction.
  - 1 Flat Paints and Coatings: 50 g/L.
  - 2 Nonflat Paints and Coatings: 150 g/L.
  - 3 Primers, Sealers, and Undercoaters: 200 g/L.
  - 4 Anti-Corrosive and Anti-Rust Paints Applied to Ferrous Metals: 250 g/L.
  - 5 Zinc-Rich Industrial Maintenance Primers: 340 g/L.
  - 6 Pre-Treatment Wash Primers: 420 g/L.
  - 7 Floor Coatings: 100 g/L.
  - 8 Shellacs, Clear: 730 g/L.
  - 9 Shellacs, Pigmented: 550 g/L.

RFQ #01 (2013-01)

Snow Leopard Holding Building Coatings

C. Colors: As selected by Architect from manufacturer's full range.

2.3 PRIMERS/SEALERS

A. Primer Sealer, Interior:

1. Amerlock Sealer (dft 3 mils) by Ameron Coatings

B. Primer Latex Interior:

1. Benjamin Moore 046 fresh start, water based.

2.4 METAL PRIMERS

A. Primer for metal:

1. Steel It Epoxy Primer #4210 (1 coat dft 3 mils) by Stainless Steel Coatings, Inc

B. Primer for metal (Galvanized):

1. Benjamin Moore P25, DTM Acrylic low luster.

2.5 EPOXY COATINGS

A. Epoxy, vertical surfaces and ceiling surfaces. The preparation, primer and topcoats for the ceiling will be the same as the wall preparation and coating application.

1. Amerlock 2 (minimum 2 coats dft 8-12 mils per coat) by Ameron Coatings.

B. Epoxy, horizontal surfaces

1. Amerlock 2 with DFA (minimum 2 coats, dft 18-24 mils) by Ameron Coatings.

2.6 DTM (DIRECT TO METAL) COATINGS.

A. Steel It Epoxy Coating #4907 (2 coats dft 3 mils per coat) by Stainless Steel Coatings, Inc.

2.7 DELETED

2.8 POLYURETHANE COATINGS

A. Polyurethane

1. Benjamin Moore P74

2.9 SOURCE QUALITY CONTROL

A. Testing of Coating Materials: Owner reserves the right to invoke the following procedure:

1. Owner will engage the services of a qualified testing agency to sample coating materials. Contractor will be notified in advance and may be present when samples are taken. If coating materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.

RFQ #01 (2013-01)

Snow Leopard Holding Building Coatings

- 2 Testing agency will perform tests for compliance with product requirements.
- 3 Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying coating materials from Project site, pay for testing, and recoat surfaces coated with rejected materials. Contractor will be required to remove rejected materials from previously coated surfaces if, on recoating with complying materials, the two coatings are incompatible.

PART 3 -EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
  1. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
    - a. Concrete: 12 percent.
    - b. Wood: 15 percent.
    - c. Gypsum Board: 12 percent.
- B. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Proceed with coating application only after unsatisfactory conditions have been corrected.
  1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
  1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.
- C. Clean substrates of substances that could impair bond of coatings, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
  1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce coating systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.

## RFQ #01 (2013-01)

### Snow Leopard Holding Building Coatings

- 1 Clean surfaces with pressurized water. Use pressure range of 10 350 to 27 580 KPa at 150 to 300 mm.
  - 2 Abrasive blast clean surfaces to comply with SSPC-SP 7/NACE No. 4, "Brush-Off Blast Cleaning."
- E. Masonry Substrates: Remove efflorescence and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces or if alkalinity of mortar joints exceed that permitted in manufacturer's written instructions.
1. Clean surfaces with pressurized water. Use pressure range of 690 to 4140 KPa at 150 to 300 mm.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer if any. Clean using methods recommended in writing by paint manufacturer but not less than the following:
- 1 SSPC-SP 7/NACE No. 4, "Brush-Off Blast Cleaning."
  - 2 SSPC-SP 11, "Power Tool Cleaning to Bare Metal."
  - 3 SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
  - 4 SSPC-SP 10/NACE No. 2, "Near-White Blast Cleaning."
  - 5 SSPC-SP 5/NACE No. 1, "White Metal Blast Cleaning."
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied coatings.
- I. Wood Substrates:
- 1 Scrape and clean knots. Before applying primer apply coat of knot sealer recommended in writing by topcoat manufacturer for coating system indicated.
  - 2 Sand surfaces that will be exposed to view and dust off.
  - 3 Prime edges, ends, faces, undersides, and back sides of wood.
  - 4 After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

### 3.3 APPLICATION

- A. Apply high-performance coatings according to manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual."
- 1 Use applicators and techniques suited for coating and substrate indicated.
  - 2 Coat surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, coat surfaces behind permanently fixed equipment or furniture with prime coat only.
  - 3 Coat back sides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
  - 4 Do not apply coatings over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of the same material are to be applied. Tint undercoats to match color of finish coat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.

RFQ #01 (2013-01)

Snow Leopard Holding Building Coatings

- C. If undercoats or other conditions show through final coat, apply additional coats until cured film has a uniform coating finish, color, and appearance.
- D. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Produce sharp glass lines and color breaks.

3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner will engage the services of a qualified testing and inspecting agency to inspect and test coatings for dry film thickness.
  - 1. Contractor shall touch up and restore coated surfaces damaged by testing.
  - 2. If test results show that dry film thickness of applied coating does not comply with coating manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with coating manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces.

3.6 DELETED

3.7 INTERIOR HIGH-PERFORMANCE COATING SCHEDULE

- A. Concrete Substrates, Vertical Surfaces:
  - 1. Epoxy System:
    - a. Prime Coat: Sealer.
    - b. Top Coat: Epoxy vertical surfaces.
- B. Concrete Substrates, Horizontal Surfaces.
  - 1. Epoxy System:
    - a. Prime Coat: Sealer.
    - b. Top Coat: Epoxy horizontal surfaces.

RFQ #01 (2013-01)

Snow Leopard Holding Building Coatings

- C. Concrete Substrates, Horizontal surfaces at ceiling.
  - 1. Latex System:
    - a. Prime Coat: Latex Primer
    - b. Top Coat: (2) coats of Latex Coating
  
- D. PVC Substrates: Exposed storm and heat piping.
  - 1. Latex System:
    - a. Prime Coat: Latex Primer.
    - b. Topcoat: latex coating.
  
- E. Raw Steel Substrates:
  - 1. Epoxy System: All exposed structural members unless noted in drawings otherwise, exposed steel conduit,
    - a. Prime Coat: Primer for metal.
    - b. Topcoat: DTM.
  
- F. Gypsum Board Substrates:
  - 1 Prime Coat: latex primer.
  - 2 Intermediate Coat: Latex Coating.
  - 3 Topcoat: Latex Coating.

END OF SECTION 099600



**PART 1 – GENERAL**1.1. General Requirements

- 1.1.1. Comply with Division 1 - General Documents and all documents referred to therein.
- 1.1.2. Provide all labour, materials, products, equipment and services to complete the epoxy flooring as required and/or indicated on the drawings and specified herein.

1.2. Quality Assurance

- 1.2.1. Arrange with the epoxy manufacturer's representative to visit the site prior to the commencement of the flooring operation to discuss the preparation and finishing procedures to be used and to analyze the surface conditions.
- 1.2.2. Arrange with the epoxy manufacturer's representative to visit the site at intervals during the surface preparation and epoxy installation to ensure that the proper surface preparation has been completed and that the specified materials are being used, in accordance with the manufacturer's recommendations. After each visit the manufacturer shall submit written reports to the Toronto Zoo.
- 1.2.3. Epoxy flooring and cove base shall be applied by franchised applicator of seamless, high performance epoxy flooring systems by Stonhard (or approved equal).
- 1.2.4. HOLD POINTS

All work should be inspected at specific hold points by a qualified 3rd party NACE certified inspector. The NACE inspector will be contracted by Toronto Zoo. The contractor is responsible for co-ordination of the inspections with the inspection company. Hold points to include but not be limited to:

- Completion of surface preparation prior to sealer application.
- Completion of surface preparation prior to primer application.
- Completion of primer application prior to midcoat application.
- Completion of midcoat application prior to top coat application.
- Completion of topcoat.

Logs to be kept on site conditions, batch numbers, quantities etc.

1.3. Submittals

- 1.3.1. Submit samples of applicable materials for approval. Work must match approved samples.

**1.4. Product Delivery, Storage, Handling & Protection**

- 1.4.1. Store materials in a single place approved by the Toronto Zoo. Keep storage clean, tidy at minimum temperature of 10oC.
- 1.4.2. Store materials undamaged in original containers with manufacturers labels intact in a warm, dry room.

**1.5. Guarantee**

- 1.5.1. All materials and installation shall be guaranteed for a period of three (3) years, from date of installation.

**PART 2 – PRODUCTS****2.1. Materials**

- 2.1.1. Manufacturer: Stonhard, 95 Sunray Street  
Whitby, Ontario L1N 9C9  
(905) 430-3333  
Toll Free: 1-800-263-3112  
Fax: (905) 430-3056
- 2.1.2. Epoxy Flooring: Stonhard, Stonclad GS sand filled epoxy flooring system consisting of primer, aggregate topping, and finish coats. Standard colours as selected by the Toronto Zoo.
  - A. Primer: Stonhard Standard Epoxy Primer
  - B. Aggregate Topping: Stonclad 3 Component Trowelled Epoxy Mortar
  - C. Finish Coat: Stonclad GS4 (coloured).
- 2.1.3. Colour: Floor – Steel Grey  
Walls – TBC  
Ceilings – TBC
- 2.1.4 **NOTE: COLOUR FOR MID-COAT SHOULD BE DIFFERENT FROM TOP COAT.**
- 2.1.4. Divider Strip: For termination of cove, white alloy, "L" shape to required finish thickness.

**PART 3 – EXECUTION****3.1. Inspection**

- 3.1.1. For epoxy flooring on new concrete surfaces, subsurface shall be sound, hard, cured, non-dusting, smooth and at correct elevation and slope, at a temperature above 12oC clean and free from holes, oil, curing or parting agents or other matter which may prevent adhesion, and have a moisture content of less than 15%.
- 3.1.2. For epoxy flooring on existing surfaces, applicator shall inspect surface and remove any materials which are not suitable for the proper installation of the new epoxy flooring. Where patching is required, patch with suitable materials to ensure a continuous even finished application. For all conditions, consult with manufacturer for recommendations for materials and procedures.

**3.2. Preparation**

- 3.2.1. Epoxy seamless flooring shall be installed upon completion of other sub-trade work.
- 3.2.2. Prepare surface of sub-floor according to epoxy flooring manufacturer's instructions for application on new concrete and for applications on existing floors and bases.
- 3.2.3. Patch any cracks or openings in sub-floor as recommended by Manufacturer.

**3.3. Application**

- 3.3.1. Mask adjacent surfaces neatly, apply primer and install 1/4 inch epoxy seamless flooring according to manufacturer's instructions.
- 3.3.2. Supply and install 4" cove at all wall bases using the same system as the floor. Install a cant at the wall/floor transition to provide a rounded corner at the base. Material use for cant shall be compatible with the Manufacturer's product.
- 3.3.3. Maintain temperature of epoxy flooring above 15oC for 7 days and protect from liquids, traffic, welding sparks and other defacements until building is complete.
- 3.3.4. Troweled epoxy resin composition flooring shall be installed by an applicator approved by the manufacturer and shall include the following:
  - 3.3.4.1. Muriatic acid etching or power scarification as required to remove laitence from concrete surfaces.
  - 3.3.4.2. Bonding coat by brush or trowel.
  - 3.3.4.3. Body coat (1/4 inch thick) by trowel.
  - 3.3.4.4. Grout coats to fill voids.

- 3.3.4.5. Final finish dressing coats in colour glaze and texture as selected.
- 3.3.4.6. Finished floor shall be 1/4" to 3/8" thick, smooth, uniform in colour and free of trowel marks.
- 3.3.4.7. Surface finish shall be anti-slip finish.

END OF SECTION