

**Proposal for**  
**Exterior Enclosure Consulting Services**

*For*

**Hawaii Ocean Plaza**  
Honolulu, Hawaii

*Respectfully Submitted To*

**FSC Architects**

*By*

**CDC, Inc.**

*On*

**March 13, 2017**

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### **General Extent of Work**

The consulting services included in this proposal by CDC, Inc. provide specialized expertise regarding exterior façade systems including the design for the window wall and or punched opening glazing systems, glass, glazing and storefront systems, and any related cladding materials associated with the external enclosure for the building. This proposal also includes a separate scope for providing all consulting services related to the roofing, water proofing of horizontal surfaces, below grade and showers and are provided to assist in the architectural design of the overall tower building enclosure and retail areas of the project.

CDC's proposed services include façade analysis and recommendations for the Exterior Enclosure wall systems, the glass and glazing systems and, research of materials and assemblies, as well as construction and engineering detailing to show the Architect's design intent and establish performance based specifications to ensure the building facade longevity and its resistance to the various environmental factors, loads and specialty loads such as seismic resistant designs and hurricanes.

CDC will work closely with the Architect and all other project consultants in a collaborative manner to ensure that the building enclosure requirements are carried out through construction. CDC will work to integrate all required penetrations, block outs, voids, louvers, interface with signage and with façade maintenance as required in support of the overall design aesthetics established by the Architect.

CDC shall have the responsibility to meet with the project team, and Owner, Contractor, and authorities having jurisdiction to understand all requirements and determine design criteria, expectations, and to develop applicable engineering solutions.

CDC will support the investigation of alternative and cost effective solutions through code equivalent design approaches if required.

CDC will support the integration of sustainable design practices spearheaded by other disciplines.

CDC acknowledges and includes in its proposal the following items:

1. Design Development
2. Construction Documents
3. Construction Administration

### **General Scope of Work for Exterior Cladding**

CDC will review the architectural drawings that pertain to the exterior enclosure designs that make up the Ocean Plaza project and make recommendations relative to the various exterior cladding systems which should be considered to meet the aesthetic objectives and still perform within the limits of the design criteria. The following factors are among the subjects to be addressed:

#### **Work Phase I: Design Development**

1. Assist the Architect and Owner regarding consultation with authorities.
2. Issue a schematic design report, showing details proposed for all of the systems covered by the Consultant's Services.
3. Provide details for the proposed design and shall include, but not be limited to as part of the design the acceptable performance criteria, codes and standards, loading conditions, design principles, shading and thermal performance, expansion control and design life.
4. Provide detail sketches and design intent drawings that address:
  - a. Develop design intent details providing one possible solution to the architects' design for the exterior enclosure systems for the building.
  - b. Details of the glazed storefront and façade structural design and interface with main structure and all joint types.
  - c. Evaluation of the Wind loading requirements in the event that no wind tunnel study is done.
  - d. Applicable Codes and standards
5. Provide performance specifications in conformance with the other specifications sections provided for this project.
6. Attend design/coordination meetings with the Architect in the office of the Architect for a total of three (3) meetings.
7. For the curtain wall or window wall design, CDC will verify that the proposed systems will comply with the current energy code by evaluating the heat flow analysis and the dew point calculation checks for each system type that is proposed.

#### **Work Phase II: Construction Documents**

1. Provide an updated comprehensive specification of systems, components, materials and workmanship.
2. Provide a review and as needed additional full scale details for the glazed roof and façade structural design and interface with main structure and all joint types.
3. Provide full-scale details of typical details for incorporation into construction documents. Drawings shall be in AutoCAD format
4. Provide preliminary structural calculations to document systems shown by the details provided will meet the performance and design intent of the project. Full calculations for the as provided system for the project by the specialist contractor will be specified to be the responsibility of the specialist contractor.

5. Attend design/coordination meetings with the Architect in the office of the Architect for a total of three (3) meetings.

### **Work Phase III: Construction Administration**

#### **Task A: Bidding**

1. CDC will attend two (2) half-day Pre-Bid Conferences via WebEx during the course of Bidding and Negotiation phase.
2. CDC will provide up to four hours of review/response to bidders technical questions during Bidding and Negotiation phase.
3. CDC will review technical documents from two (2) shortlisted bidders for façade systems. CDC will return red-line comments directly on bidders' documents addressing technical issues with the proposals, in pdf format, via electronic transfer (e-mail or upload to designated share point) to DPI for distribution to the Project Team. If desired, CDC can make recommendation for award based on technical review of bidder documents.

#### **Task B: General Construction Administration Services**

1. Review any final visual quality control sample panels in the local factory and/or on site with the Design Team to agree on standards of workmanship and to provide comments with respect to Contract Documents and the Specialist's drawings and method statements.
2. Carry out visits to the site to observe progress and provide written reports of findings to assist the Design Team with final inspections of sample areas of each type of cladding prior to sign off. Proposed fee is based on per visit fee plus expense and is based on using local labor forces. The total number of trips included at this time amount to three (3). If additional trips are required than we shall provide based on the noted per trip cost. A written report of the findings shall be prepared at the conclusion of each site visit and shall be forwarded to the Architect. The Consultant shall report to the Owner and the Architect in writing any work observed during site visits that does not conform to the Construction Documents.
3. CDC will conduct a minimum of two factory visits to review and observe the production of the pre-panelists window wall system for the project. This proposal assumes that the source for material and system supply will be local to one of CDC's 22 offices and will allow easy access to the facility.
4. Review and comment on specialist contractor's shop drawing, structural calculations and technical data submittals. CDC's review will advise the Architect regarding appropriate approvals or action to those submittals/reports. Reviews will be taken with reasonable coordination and promptness and in no case, longer than ten (10) working days from receipt, so as to cause no delay. Fee is based on a total of two reviews of submittals for each system or product data. Additional reviews will require change order for additional time to perform reviews. Costs for additional reviews should be recoverable from the specialist contractor.

### Performance Mockup Testing and Construction

1. CDC will review, for technical merit, mock-up shop drawings, calculations, samples, other product information related to mock-up components for one mock-up specimens. CDC will review other necessary items required for the fabrication of the selected systems as submitted by the Contractor to ensure conformance with design intent and relevant performance requirements. **Review services are limited to two (2) submissions of each drawing, product data and calculation.** Scope of services does not include review of quantities, dimensions, adjacent works, nor coordination.
2. In collaboration with Project Team, CDC will ensure that the Contractor's test program is properly planned and conducted.
3. CDC will attend, observe and witness, the erection and performance testing of one (1) mock-up specimens. Fee includes providing a written report of observations and recommendations concerning the acceptability of test results. We have assumed the testing to be conducted at a laboratory located in California for estimating purposes. Fee is based upon **6 man days total at the lab with two round-trip visits to the lab, which includes two trips per test specimen.**

### Scope of Work for Roofing and Waterproofing

CDC will review the architectural drawings that pertain to the Roofing & Waterproofing Systems that make up the project and make recommendations relative to those systems and tie-ins to adjacent materials.

- Above-grade, horizontal waterproofing systems
- Roofing
- Exterior expansion assemblies
- Shower pan assemblies exclusive to water proofing

### Work Phase I: Design Development

1. Develop a design outline and analysis which describes the basic waterproofing and roofing systems for the entire Project based on the following:
2. Discuss with team the options for roofing and waterproofing systems based on the Owner's budget and the most appropriate system for the intended use.
3. Prepare letter with comments and recommendations.
4. Assist in refining the roof and waterproofing systems during this phase.
5. Provide specifications regarding roofing and waterproofing systems.
6. Provide a review of the 40% and 95% documents.
7. Review the design performance criteria for systems and components.
8. Attend one, one day meeting in person, and each additional required meeting via video conference such as WEB Ex.

**Work Phase II: Construction Documents**

1. Fully define the roofing and waterproofing systems during this phase.
2. Provide CD level specifications regarding roofing and waterproofing systems.
3. Review drawings at 50% and 90% for conformance to the performance criteria and specifications at critical stages and provide a memorandum with comments.
4. Attend one, one day meeting.

**Work Phase III: Construction Administration**

1. Attend one pre-installation meeting regarding roofing and waterproofing systems.
2. Review submittals regarding roofing and waterproofing systems. Reviews include up to two of each system submitted.
3. Visits to the site at intervals appropriate to the stage of construction to review the work in progress and upon completion to verify general compliance with the Contract Documents. Carry out visits to the site to observe progress and provide written reports of findings to assist the Design Team with final inspections of sample areas of each type of cladding prior to sign off. Proposed fee is based on per visit fee plus expense and is based on using local labor forces. The total number of trips included at this time amount to three (3). If additional trips are required than we shall provide based on the noted per trip cost. A written report of the findings shall be prepared at the conclusion of each site visit and shall be forwarded to the Architect. The Consultant shall report to the Owner and the Architect in writing any work observed during site visits that does not conform to the Construction Documents.
4. Respond to RFI's as required.

**Proposed Fees for Scope of Services**

Stage	Fee
Phase 1 – Design Development	\$30,000.00
Phase 2 – Construction Documents	\$24,000.00
Phase 3– Construction Administration	\$46,000.00
<b>Sub-Total</b>	<b>\$ 100,000.00</b>

**\*\*EACH ADDITIONAL SITE OBSERVATION VISIT THE FEE IS \$950.00/TRIP.**

**Actual reimbursable expenses will be invoiced for expenses incurred.**

**Additional Services**

For services not covered by the scope as outlined above, or which are requested due to changes made in the project once work has commenced, such services shall be considered as additional work. Authorization for additional services will need to be made in writing prior to execution of any such work by CDC. CDC will prepare a quotation for additional services based upon the schedule of hourly fees included in this proposal.

As previously noted the above numbers allow for a set number of site visits during construction. The total **per trip visit is \$1,300.00** and is inclusive of local transportation.

**Quality Assurance**

All designs generated by CDC are reviewed by at least one principal of the firm. Specifications are also reviewed by at least one principal. Major drawing submissions are also checked by a principal.

CDC has recently undergone an Organizational and Operations Peer Review by the American Council of Engineering Consultants (ACEC). Our Quality Assurance practices were rated favorably.

**Construction Administration**

CDC design consultants are assigned to the project from the beginning to the end for consistency. Their efforts include review of shop drawings, witnessing of tests, and performing on-site observations. CDC has individuals who may assist the design consultant on an as needed basis to draw details, conduct test, witness installation of work on test specimens, or to provide more full-time on-site observation services. The design consultant shall be the primary contact on the project.

Our plan is to utilize the same personnel, in construction administration phase, who worked in the design phases of the project. That way, any complex design detail or material sensitivities are not lost in transition between staff. Intimate knowledge of roofing and waterproofing specifications and testing are required to have an effective impact during job site installation. Punch list format will be customized to suit the design. Shop drawing submittals are tracked using the contractor identifying number in a log maintained by the CDC Project Manager.



We expect to have frequent contact with the Architect of Record and other consultants. Communication via telephone, fax, email and delivery services is expected. Periodic meetings to coordinate and discuss issues will be needed as the work progresses.

The Principal-in-Charge will be responsible for the overall direction of CDC's services on the project. He will participate in meetings and maintain an active role in each phase of the job. The Project Manager will handle the daily coordination of work and act as CDC's conduit to the team. Other project staff will provide specialized consulting as required, e.g. for technical items, specifications, testing and inspection.

### **Detailed Exceptions**

CDC is not responsible for the means, methods, sequence, procedures, technique, or scheduling of construction.

CDC does not include any service relating to material quantity, surveys, or scheduling.

CDC does not include any services related to asbestos or hazardous or toxic materials.

CDC does not include any engineering or design of the building structure or the structural supports for any roofing or waterproofing materials.

CDC does not provide, furnish, or install equipment such as swing stages, scaffolds, ladders, or lifts to access areas requiring observation. Client shall make arrangements for necessary access.

CDC does not guarantee the performance of the acts or omissions of any contractor, subcontractor or supplier and is not responsible for job-site safety.

Once erection of the mock-up is commenced, if the installation of the test specimen is delayed through no fault of CDC, then additional services will need to be authorized to compensate for time delay if CDC is to provide additional time.

If any of the test results require re-testing, or if testing is delayed through no fault of CDC, then additional services will need to be authorized if CDC is to witness the re-tests or the originally scheduled testing.

CDC does not include any time for meetings other than those specifically identified in this proposal.

If the scope of services quoted is not complete by 31 December 2019, then additional fees will be required.

No other work, other than that specifically included in the scope of work and services described, is included in this proposal.

This scope of services does not include any work on weekends, public holidays or after 6:00 p.m. unless previously discussed and mutually agreed upon by both parties.

This scope of services does not include any preparation of quantities, or review of dimensions, or the coordination of the scheduling of work.

CDC's opinion on estimates of cost will be based upon our past knowledge. However, due to local economies, workloads of contractors and other factors that are beyond the control of CDC, CDC estimates cannot be used as a guarantee of the actual cost for the curtain wall systems.

Due to the limited CDC on site involvement, we are unable to render certifications on Contractor's applications for payment, progress against the Project Schedule and full compliance with the Contract Documents. CDC will render an opinion regarding this item only.





## **Personnel & Organization**

Curtain Wall Design and Consulting (CDC) was incorporated in the State of Texas, USA in 1973. CDC has operated continuously since that time, with our only business being specialist consultants in the design and engineering of curtain walls, skylights, and many other exterior cladding systems. The ownership and management of CDC is by "hands on" full time employees, with numerous years of experience in the curtain wall industry.

All matters relating to the design, engineering, specifications, evaluation, test witness and observation of exterior cladding are handled directly by full-time employees of CDC. No other curtain wall-consulting firm has assembled such a broad base of expertise.

Execution of some specialized testing, such as wind tunnel testing, full-scale performance mock-up testing, or metallurgical or chemical analysis are not done within our organization, but we have a healthy network of relationships with laboratories that can accomplish this work if required.

CDC is the nation's largest source of cladding expertise. With a staff of over 85 engineers, designers, and technicians, CDC is equipped to handle today's exacting demands for high performance wall systems. The consulting team available to service this project will be as follows:

**Consultant and Principal-in-Charge: Mr. John Gustafson** John will provide overall direction to the consulting team and will provide managerial and technical input as needed. He will also support the design team with design analysis and technical research as needed (Johns' rate is at the Principal level).

**Senior Consultant / Associate: Mr. Raul Espinosa.** Raul will provide hands-on consulting services, attend meetings in Hawaii as necessary and perform construction administration activities.

**Project Consultant: Mr. Matt Thorn.** Matt will assist with all site and plant observations during the product assembly and erection phase of the project and be responsible for the day-to-day management of the project.

**Sr. Associate/ Roofing and Water Proofing: Mr. Michael Lee**

*Other staff members will be added as required based on their individual knowledge and expertise*

## **CDC Qualifications**

### **Billings/Payments**

Separate invoices will be processed on a percent complete basis by phase of service. Invoices will be submitted monthly for services (fees) and reimbursable expenses. Invoices for fees and services will be invoiced monthly on an agreed to date. Invoices are due when rendered. Invoice shall be considered **PAST DUE** if not paid within 30 days after the invoice date. A service charge will be charged at 1.0% per month on the unpaid balance. A one percent (1%) discount will be allowed if payment for invoice is received by CDC within 30 days from date of invoice. Discount applies to fees only, not expenses.

In the event any portion or all of an account remains unpaid 90 days after billing, the Client shall pay cost of collection, including reasonable attorney's fees and CDC may, without waiving any claim or right against Client, and without liability whatsoever to the Client, terminate the performance of the service. Delinquent payments, plus the preceding mentioned interest charge, must be received within 90 days of the invoice date to avoid termination of this agreement.

Payments (including delinquent interest charge mentioned in the preceding paragraph) not received within 90 days from the billing date will be cause for CDC to terminate services after giving one week written notice that this will occur. Services will then be terminated at the end of the notification period if the delinquent payment is not received. Information prepared or due will not be provided until the overdue payment is received.

### **Indemnifications**

The Client shall indemnify and hold harmless CDC and all of its personnel from and against any and all claims, damages, losses, and expenses (including reasonable attorney's fees) arising out of or resulting from the performance of the services, provided that any such claims, damage, loss or expense is caused in whole or in part by the negligent act of omission, and/or strict liability to the Client, or anyone directly or indirectly employed by the Client (except CDC) whose acts may be liable.

### **Insurance Coverage**

CDC shall secure and endeavor to maintain comprehensive general liability insurance and automotive liability insurance, plus workers' compensation insurance to protect CDC from claims for bodily injury, death, or property damage which may arise in the performance of CDC's services under this agreement, and from claims under workers' compensation acts. CDC shall, if requested in writing, issue a certificate confirming such insurance to the Owner.

CDC currently maintains \$2,000,000.00 in general liability coverage, and \$1,000,000.00 Worker's Compensation coverage and. If these limits are not adequate, the Client shall pay the premium for more coverage.

Any additional insured parties, other than CDC's immediate client, that are required to be added to this insurance, can be added based upon acceptance by the insurance company. The cost to add these parties is \$150.00 per each party / name. This cost is not included in our proposal, and requires pre-payment before insurance certificates can be issued.

CDC currently maintains a \$1,000,000.00 claims made Professional Liability insurance policy. If additional coverage is required the Client as a reimbursable expense shall pay for the premium cost for this additional coverage.

### **Unforeseen Conditions or Occurrences**

It is possible that unforeseen conditions or occurrences may be encountered at the Property which could substantially alter the necessary Services or the risk involved in completing Consultant's Services. If this occurs, Consultant will promptly notify and consult with Client, but will act based on Consultant's Services reasonable judgment where risk to Consultant's personnel is involved. Possible actions could include:

- a. Complete the original Scope of Services in accordance with the procedures originally intended, if practicable in Consultant's reasonable judgment;
- b. Agree with Client to modify the Scope of Services and the estimate of changes and costs to include study of the unforeseen conditions or occurrences, with such revision and cost adjustment agreed to in writing; or
- c. In the event that Client and Consultant cannot reasonably agree to the actions to be taken, terminate the Services effective on the date specified by Consultant in writing.

Unless otherwise provided in this Agreement, the Consultant shall have no responsibility for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous materials in any form at the Project site.



**Applicable Law**

Unless otherwise specified, this agreement shall be governed by the laws of the principal place of business of CDC, Inc.

**Contracts / Purchase Orders**

CDC is a professional services company. CDC is not a contractor. Therefore, we cannot accept or sign contracts, which are designed for sub-contractors and material supply companies. We will accept a purchase order for the services stipulated in this agreement, an acceptable AIA Professional Services Agreement or you can simply execute this agreement in the area provided.

**Validity**

This proposal of services is valid until May 31, 2017.

**Schedule of Fees for Additional Consulting Services**

<b>Staff</b>	<b>2017</b>	<b>2018</b>
Senior Principal	\$290.00	\$295.00
Principal	265.00	270.00
Senior Associate	220.00	230.00
Associate	200.00	210.00
Consultant	195.00	205.00
Engineer	190.00	200.00
Sr. Consultant (Façade)	220.00	230.00
CAD Drafter	145.00	145.00
Sr. Consultant (R/W)	185.00	195.00
Field Consultant (R/W)	145.00	145.00

All above amounts are in United States dollars per hour.

***BASIS OF REIMBURSABLE CHARGES***

**MINIMUM CHARGES:**

Office Work	One Half Hour
Out-Of Office Work in Los Angeles	Two Hours
Field Work in Los Angeles	Two Hours
Work Outside of Los Angeles	Ten Hours

**MISCELLANEOUS CHARGES:**

Prints (24" x 36" or less)	@ Cost
Express Mail/Delivery Charges	@ Cost
Air travel, accommodations, taxis	@ Cost
Meals on out of town trips	Receipts@ cost
Parking fees, tolls and auto rental	@ Cost
Outside services	@ Cost
Long distance phone calls	@ Cost
Mileage, round trip from office	IRS Rate

**Agreement:**

If above quotation is acceptable, please sign and return to CDC, Inc.

**Consultant:**

Company Name: Curtain Wall Design & Consulting, Inc.

Officer's Name: John A. Gustafson


Signature: \_\_\_\_\_

Title: Sr. Vice President Date: \_\_\_\_\_

**Client:**

Company Name: Hawaii Ocean Plaza LP

Officer's Name: Zhe Feng

Signature:  \_\_\_\_\_

Title: Manager Date: 4/14/2017