

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Lana Beach, CA 90802-4664

1 EIGHTH AMENDMENT TO AGREEMENT NO. 33388

2 33388

3 THIS EIGHTH AMENDMENT TO AGREEMENT NO. 33388 is made and
4 entered, in duplicate, as of December 8, 2021, for reference purposes only, pursuant to a
5 minute order adopted by the City Council of the City of Long Beach at its meeting on
6 November 16, 2021, by and between HARLEY ELLIS DEVEREAUX CORPORATION, a
7 Michigan corporation, with a place of business at 601 S. Figueroa St., Suite 500, Los
8 Angeles, California 90017 ("Consultant"), and the CITY OF LONG BEACH, a municipal
9 corporation ("City")

10 WHEREAS, City and Consultant (the "Parties") entered into Agreement No.
11 33388 (the "Agreement") whereby Consultant agreed to provide architectural and
12 engineering services for the Belmont Plaza Pool Facility Rebuild/Revitalization Project; and

13 WHEREAS, the Parties entered into a First Amendment to the Agreement to
14 include additional services and add \$490,850 to the Agreement for the additional services
15 for a total not to exceed amount of \$7,635,151; and

16 WHEREAS, the Parties entered into a Second Amendment to the Agreement
17 to include additional services and add \$223,580 to the Agreement for the additional
18 services for a total not to exceed amount of \$7,858,731; and

19 WHEREAS, the Parties entered into a Third Amendment to the Agreement
20 to extend the term to June 30, 2017; and

21 WHEREAS, the Parties entered into a Fourth Amendment to the Agreement
22 to extend the term to June 30, 2018; and

23 WHEREAS, the Parties entered into a Fifth Amendment to the Agreement to
24 extend the term to June 30, 2019; and

25 WHEREAS, the Parties entered into a Sixth Amendment to the Agreement
26 to extend the term to June 30, 2020; and

27 WHEREAS, the Parties entered into a Seventh Amendment to the
28 Agreement to extend the term to June 30, 2022; and

1 WHEREAS, the Parties desire to add \$4,805,845 to the Agreement for a total
2 not to exceed amount of \$12,664,576, extend the term to December 31, 2024, attach an
3 updated rate sheet, and attach an updated list of Subcontractors;

4 NOW, THEREFORE, in consideration of the mutual terms, covenants, and
5 conditions herein contained, the Parties agree as follows:

6 1. Section 1.A. of Agreement No. 33388 is hereby amended to read as
7 follows:

8 “A. Consultant shall furnish specialized services more particularly
9 described in Exhibit “A” attached to the Agreement and Exhibit “A-1” attached to the
10 First Amendment, both incorporated by this reference, in accordance with the
11 standards of the profession, and City shall pay for these services in the manner
12 described below, not to exceed Twelve Million Six Hundred Sixty-Four Thousand
13 Five Hundred Seventy-Six Dollars (\$12,664,576), at the rates or charges shown in
14 Exhibit “B-1” to the Agreement.”

15 2. Section 2 of the Agreement is hereby amended to read as follows:

16 “2. TERM. The term of this Agreement shall commence at midnight on
17 March 5, 2014, and shall terminate at 11:59 p.m. on December 31, 2024, unless sooner
18 terminated as provided in this Agreement, or unless the services or the Project is
19 completed sooner. The term may be extended for two (2) additional one-year periods, at
20 the discretion of the City Manager.”

21 3. The Rates contained in Exhibit “B” to the Agreement is hereby
22 amended and replaced by Exhibit “B-1”, attached hereto and incorporated herein.

23 4. Consultant' s Key Employee's, Subconsultants, and Subconsultant
24 Staff contained in Exhibit “E” to the Agreement are hereby amended and replaced by
25 Exhibit “E-1”, attached hereto and incorporated herein.

26 5. Except as expressly modified herein, all of the terms and conditions
27 contained in Agreement No. 33388 are ratified and confirmed and shall remain in full force
28 and effect.


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IN WITNESS WHEREOF, the Parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

HARLEY ELLIS DEVEREAUX CORPORATION, a Michigan corporation

DECEMBER 9, 2021

By 
Name MICHAEL F. COOPER
Title PRESIDENT

DECEMBER 9, 2021

By 
Name BRENT MILLER
Title PRINCIPAL

"Consultant"

CITY OF LONG BEACH, a municipal corporation

12/20, 2021

By 
City Manager

"City" INCORPORATED PURSUANT TO SECTION 311 OF THE CITY CHARTER.

This Eighth Amendment to Agreement No. 33388 is approved as to form on

December 9, 2021.

CHARLES PARKIN, City Attorney

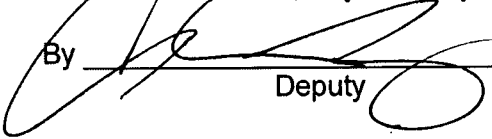
By 
Deputy

Exhibit "B-1"

Updated Rates

HED LOS ANGELES Billing Rates

January 1, 2021 through December 31, 2024

<u>Classification</u>	<u>Rate</u>
Level 6: Principal Architects/Engineers/Planner/Designers	\$422
Level 5: Associate Principal Architects/Engineers/Planner/Designers	\$330
Level 5: Associate Architects/Engineers/Planner/Designers	\$303
Level 4: Salary Architects/Engineers/Planner/Designers	\$234
Level 3: Hourly* Architects/Engineers/Planner/Designers	\$150
Level 2: Hourly* Architects/Engineers/Planner/Designers	\$123
Level 1: Hourly* Architects/Engineers/Planner/Designers	\$100

* Subject to Overtime premium of 1.5 times schedule rate.
Rates effective through December 31, 2024.
Rates can be updated by contract amendemnt only.

fax 323 226 1105 323 2261112

roto@rotoark.com



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November 19, 2021

PROJECT: Belmont Beach Aquatic Center

ATTN:
Yu-Ming Wei
550 South Hope Street, Suite 2500
Los Angeles, CA 90071

2021 RoTo Hourly Rate

Staff	Hourly Rate
Principal	\$ 350
Project Manager	\$ 250
Project Architect	\$ 250
Designer	\$ 175
Draft person	\$ 125
Admin	\$ 90

Note:
Above hourly rate is valid through December 31, 2024
Rates can be updated by contract amendemnt only.

Roto_Architects Inc.

600

Moulton Avenue

405

Los Angeles

California

90031

**HASTINGS+CHIVETTA ARCHITECTS, INC.
HOURLY RATE SCHEDULE**

For additional services of the architect beyond the scope of Basic Services as described in the contract provisions, the following personnel charges are for work directly related to the project. These billable rates include all overhead and profit and are subject to change annually.

<u>Classification</u>	<u>Hourly Rate</u>
Principal	\$330
Project Manager	\$290
Project Designer	\$270
Construction Administrator	\$275
Project Architect	\$230
Programmer	\$215
Revit Technician	\$210
Interior Designer	\$190
Technician	\$190
Graphics	\$175
Administrative	\$150

Reimbursable expenses are in addition to the above hourly fees and include expenses incurred by Hastings+Chivetta Architects, Inc. in the interest of the project.

Effective: Valid through 12-31-2024 Rates can be updated by contract amendemnt only.

Rates can be updated by contract amendment only.



155 N. Lake Avenue, 6th Fl.
Pasadena, California 91101
626.304.2616 (T)
626.304.2676 (F)

www.SaifulBouquet.com

SAIFUL BOUQUET
RATE SCHEDULE for BBAC
(Effective through December 31, 2024)

Managing / Senior Principal	\$250
Principals	\$235
Project Manager	\$210
Senior Project Engineer	\$185
Project Engineer	\$170
Senior Engineer/Senior Analyst	\$155
Engineer	\$145
Design Engineer	\$135
Senior Structural Coordinator	\$165
Sr. BIM Project Manager	\$165
BIM Project Manager	\$155
Senior Project BIM Designer	\$145
Project BIM Designer	\$140
BIM Senior Designer	\$125
BIM Designer	\$115
Presentation Designer	\$135
Administrative Assistant	\$90
Other Support Staff	\$80

Rates can be updated by contract amendment only.



Counsilman · Hunsaker

AQUATICS FOR LIFE

Hourly Rates - Valid Through December 31, 2024

Principal	\$236.00/hour
Director	\$216.00/hour
Project Manager	\$190.00/hour
Project Engineer/Architect	\$160.00/hour
Design Associate	\$134.00/hour
Administrative	\$77.00/hour

Rates can be updated by contract amendment only.

SURVEY AND MAPPING RATE SHEET

Hourly Labor Rates

Labor Classification	Hourly Rate
Principal Land Surveyor	\$265.00
Survey Manager/QC Manager	\$235.00
Professional Land Surveyor (PLS)	\$215.00
Project Surveyor	\$185.00
Survey Analyst	\$155.00
Survey Technician	\$130.00
Project Coordinator	\$100.00
Field Crew Classifications (Prevailing Wage)*	
1-Person Survey Crew	\$200.00
2-Person Survey Crew	\$340.00
3-Person Survey Crew	\$455.00

*1-, 2-, and 3-Person Survey Crews are inclusive of prevailing wages and benefits, survey vehicles, conventional and GNSS survey equipment, and associated survey tools, safety equipment, etc.

MINIMUM HOURLY CHARGE (PREVAILING WAGE ONLY)

Office classifications will be billed based on the hours worked, no minimum hourly charge. Field classifications will be billed on an hourly basis with a minimum of 4, 6, and 8 hours in accordance with prevailing wage requirements.

ESCALATION

Rates shown here on remain in effect until December 31, 2024.

OVERTIME

Straight time will be billed for all work performed on-site up to 8 hours each day, Monday through Friday. Overtime will begin after 8 hours Monday through Friday and on Saturdays. Double time will begin after 12 hours and on Sundays and Holidays. The overtime and double time will be pre-approved by the City. The overtime/double labor rates will include:

Overtime (on-site over 8 hours Mon-Fri and Sat)	1.5 times the hourly base rate
Sundays and Holidays	2.0 times the hourly base rate
Nighttime (Non-Overtime)	1.5 times the hourly base rate

OTHER DIRECT COSTS

1. Reimbursable costs including but not limited to delivery or messenger charges, reprographic, agency fees, permits, title company fees, etc. shall be billed at cost.
2. Mileage will be billed at the approved IRS rate.
3. Subconsultant fees shall be billed at cost .
4. Costs related to specialty survey equipment, safety equipment and/or traffic control, if needed, will be discussed and negotiated prior to use.
5. Expenses for any special equipment and/or requests shall be at the approval of the City.

Rates can be updated by contract amendment only.

RATE SCHEDULE FOR PROFESSIONAL ENGINEERING SERVICES

Project Name: Belmont Beach Aquatics Center

Company Name: Moffatt & Nichol

Effective June 1, 2021 and Valid Through December 31, 2024 unless further negotiated and approved by both parties.

Classification	Hourly Rate (2021)	Hourly Rate (2022)	Hourly Rate (2023)	Hourly Rate (2024)
PROFESSIONALS				
Principal Engineer / Scientist	\$292	\$300	\$309	\$318
Supervisory Engineer / Scientist	\$278	\$286	\$295	\$304
Senior Engineer / Scientist	\$260	\$268	\$276	\$284
Engineer / Scientist III	\$246	\$253	\$261	\$269
Engineer / Scientist II	\$215	\$221	\$228	\$235
Engineer / Scientist I	\$194	\$200	\$206	\$212
Staff Engineer / Scientist	\$155	\$160	\$165	\$170
TECHNICIANS				
Senior Technician	\$210	\$216	\$222	\$229
CADD Designer	\$198	\$204	\$210	\$216
CADD II	\$170	\$175	\$180	\$185
CAD I	\$126	\$130	\$134	\$138
CLERICAL				
Project Controls/Word Processing	\$126	\$130	\$134	\$138
General Clerical / Project Administration	\$99	\$102	\$105	\$108
SPECIAL				
Deposition & Trial Testimony	\$522	\$538	\$554	\$571

REIMBURSABLE EXPENSES (Unless Otherwise Provided in Written Agreement)

Classification	Rate (2021)	Rate (2022)	Rate (2023)	Rate (2024)
SUBCONTRACTS OR OUTSIDE SERVICES				
Subcontractors / Outside Services	Cost	Cost	Cost	Cost
REPRODUCTIONS				
Mylar Plots (B/W)	\$2.00/SF	\$2.00/SF	\$2.00/SF	\$2.00/SF
Color Plots	\$4.00/SF	\$4.00/SF	\$4.00/SF	\$4.00/SF
Vellum Plots (B/W)	\$1.00/SF	\$1.00/SF	\$1.00/SF	\$1.00/SF
Bond Plots	\$0.50/SF	\$0.50/SF	\$0.50/SF	\$0.50/SF
Drawing Reproduction	Cost	Cost	Cost	Cost
Document Reproduction	\$0.10/Sheet	\$0.10/Sheet	\$0.10/Sheet	\$0.10/Sheet
Outside Reproduction	Cost	Cost	Cost	Cost
TRAVEL				
Company Auto	Prevailing IRS	Prevailing IRS	Prevailing IRS	Prevailing IRS
Rental Vehicle	Cost	Cost	Cost	Cost
Airfare	Cost	Cost	Cost	Cost
Meals and Lodging	Cost	Cost	Cost	Cost

Rates can be updated by contract amendment only.

Terra-Petra

justin@terra-petra.com waterproofing.terra-petra.com

Rate Schedule

Valid thru December 31, 2024

POSITION	RATE
Principal	\$ 300.00
Principal I Construction/Forensic Waterproofing Expert	\$ 295.00
Senior Consultant	\$ 255.00
Senior Civil Engineer (PE)	\$ 250.00
Certified Hydro Geologist	\$ 195.00
Senior Waterproofing Consultant	\$ 195.00
Geologist	\$ 180.00
Project Manager	\$ 140.00
Director of Field Operations	\$ 140.00
Senior Inspector	\$ 130.00
Inspector (DWaterproofing) Above Grade	\$ 125.00
Senior Auto CAD Drafter	\$ 115.00
Inspector (DMBI/Waterproofing) Below Grade	\$ 107.00
Auto CAD Drafter	\$ 95.00
Administrative/Clerical	\$ 90.00

Each discipline is billed on a Time and Materials (T&M) basis at the rate listed above. Billing time is rounded up to the quarter hour. Reimbursable Expenses are billed at cost.

Inspection Services: Terra-Petra has a 4 hour minimum billing for site visits. Inspections conducted on Saturdays, Sundays, Holidays and after hours (4:00 PM to 6:00 AM Sunday thru Thursday) are billed at 1.5 times our standard rate. Inspections conducted after hours on Friday or Saturday (4:00 PM to 6:00 AM) are billed at 2 times our standard rate. Travel time is billed at actual time logged not to exceed 1 hour each way (unless agreed to in writing). A \$45.00 administration fee is added to each site visit to compensate for Special Report preparation, submittal and distribution.

Litigation Related Services: Including, Forensic Consulting Services, Depositions, Court Appearances, etc. are billed at 1.5 times above standard rates. This includes forensic engineering, case study, data analysis, product testing, facility and field evaluations, preparation of reports and attorney technical briefings. We have a 4 hour minimum charge for these activities. Expert Witness Testimony is billed at 2 times above standard rates. We have an 8 hour minimum charge for Expert Witness Testimony. Equipment expenses are not included in consulting service rates. Travel time will be billed at \$200.00 per hour. No minimum charge. Actual time only.

Rates can be updated by contract amendment only.

LOS ANGELES

700 S. Flower St., Ste. 2580
Los Angeles, CA 90017
p 213.458.0494
f 213.788.3564

SAN FRANCISCO

One Sansome St., Ste. 3500
San Francisco, CA 94104
p 415.590.4890
f 415.590.4891

DENVER

3801 E. Florida St., Ste. 400
Denver, CO 80210
p 303.991.5876
f 303.759.8477

NEW YORK

One Penn Plaza, 36th Fl.
New York, NY. 10019
p 212.786.7456
f 212.786.7317

Schedule of Hourly Rates – Standard

Effective January 04, 2021 through December 31, 2024

CATEGORY	BILLING RATE/HOUR
Principal (Associate I)	\$260
Associate Principal (Associate II)	\$210
Senior Associate (Associate III)	\$190
Associate IV	\$160
Associate V	\$140
Associate VI	\$120

Acoustic modeling is charged at a rate of \$180 per hour.

Rates can be updated by contract amendment only.



Woden Fire, LLC
650 W. 5th Street, 35th Floor
Los Angeles, CA 90013

LIFE SAFETY AND DISABLED ACCESS CONSULTING SERVICES HOURLY RATES

Principal	\$290
Vice President	\$275
Director	\$250
Sr. Associate	\$200
Associate	\$175
Consultant	\$150

These rates shall remain in effect through December 31, 2024.

Rates can be updated by contract amendment only.



Project No. 20140185
Harley Ellis Devereaux
Belmont Plaza Pool Rebuild-Revitalization
4000 East Olympic Plaza
Long Beach CA
Valid through December 31, 2024

Professional Staffing

Code	Item	\$/Unit	Unit
P100	Principal Professional Engineer	\$ 225.00	Hour
P101	Senior Geotechnical Engineer	\$ 210.00	Hour
P102	Project Engineer / Manager	\$ 175.00	Hour
P103	Geologist	\$ 185.00	Hour
P104	Quality Control Manager	\$ 175.00	Hour
P105	Senior Staff Engineer	\$ 170.00	Hour
P116	Health and Safety Officer	\$ 210.00	Hour
P115	LA City Deputy Methane Specialist	\$ 155.00	Hour
P107	Laboratory Manager	\$ 135.00	Hour
P108	Laboratory Technician	\$ 120.00	Hour
P109	CADD Operator/Draftsperson	\$ 95.00	Hour
P110	Data Processing, Technical Editing or Reproduction	\$ 95.00	Hour
P111	Expert Witness Testimony	\$ 465.00	Hour
P112	Certified Payroll, per hr.	\$ 180.00	Hour
P113	Senior Staff Environmental Engineer	\$ 210.00	Hour
P114	Senior Environmental Engineer	\$ 210.00	Hour

Field Technician

Code	Item	\$/Unit	Unit
T150	Special Inspector (Reinforced Concrete, and Masonry)	\$ 125.00	Hour
T151	Special Inspector (Structural Steel, Drilled-In-Anchors)	\$ 125.00	Hour
T152	Special Inspector for Welding	\$ 125.00	Hour
T153	DSA Class I Inspector	\$ 145.00	Hour
T154	DSA Class II Inspector	\$ 135.00	Hour
T155	Special Inspector for Fireproofing	\$ 125.00	Hour
T156	Special Inspector Load Tests or Torque/Bolt)	\$ 125.00	Hour
T157	Special Inspector Rebar Sample	\$ 125.00	Hour
T158	Special Inspector Pachometer	\$ 125.00	Hour
T159	Senior Asphalt Placement Technician	\$ 125.00	Hour
T160	Asphalt Placement Technician	\$ 125.00	Hour
T161	Asphalt/Concrete Plant Technician	\$ 125.00	Hour
T162	ACI/Caltrans Technician	\$ 125.00	Hour
T163	Senior Soils Technician	\$ 125.00	Hour
T164	Senior Grading Inspector	\$ 130.00	Hour
T165	Staff Grading Inspector	\$ 125.00	Hour
T166	Soils Technician	\$ 125.00	Hour
T167	Pile Driving Inspector	\$ 135.00	Hour
T168	AWS Certified Welding Inspector	\$ 125.00	Hour
T169	NACE Coating Inspector	\$ 145.00	Hour
T170	Field Coring Technician	\$ 125.00	Hour
T171	Nondestructive Examination Technician, UT, MT, LP	\$ 130.00	Hour
T172	Structural Steel Fabrication Inspector (AWS)	\$ 130.00	Hour
T177	Senior Environmental Technician	\$ 135.00	Hour
T178	Environmental Technician	\$ 130.00	Hour
T179	Building Inspector	\$ 140.00	Hour

Fabrication Shop Inspections

Code	Item	\$/Unit	Unit
T173	Structural Steel Inspector (ICC/CBO)	\$ 125.00	Hour



T174	Structural Steel Inspector (AWS)	\$ 125.00	Hour
T175	Batch Plant Quality Control Technician/Inspector	\$ 125.00	Hour
T176	Reinforced Concrete, Prestressed Inspector	\$ 125.00	Hour

Field Inspector/Technician Hours

No Work Performed (Work Cancelled)
All field services charge

Regular Work Hours

First 8 hours, Monday through Friday, between 5:00 a.m. to 5:00 p.m.
Direct Project expenses outside services will be charged at Cost + 15%.

Time and One-Half

Any increment past first 8 hours through 12 hours, Monday through Friday
First 12 hours on Saturday
Shift between 3:00 a.m. and 5:00 a.m.

Double Time

Any hours past 12 hours Monday through Saturday, all day Sunday and Federal Holidays

Field Analysis

Code	Item	\$/Unit	Unit
G200	Soil Boring with Hollow Stem Auger Drilling Portal to Portal	\$ 415.00	Hour
G201	Backfill Boreholes with Bentonite	\$ 26.00	Foot
G202	Backfill Boreholes with Grout	\$ 37.00	Foot
G203	Drumming and Disposal of Clean Cuttings	\$ 410.00	Drum
G204	Fire Water Buffalo	\$ 578.00	Day
G205	Support Truck	\$ 158.00	Day
G206	Water Truck	\$ 473.00	Day
G207	Mobilization and Demobilization for Rock coring	\$ 1,208.00	Each
G208	Rock Coring	\$ 478.00	Hour
G209	Decontamination of Vehicle and Equipment (Up to 100 miles)	\$ 315.00	Each
G210	Field Resistivity, up to 3 arrays, maximum distance of 40 ft.	\$ 1,890.00	Each
G211	Environmental Soil Boring with Hollow Stem Auger Portal to Portal	\$ 446.00	Hour
G212	Environmental Soil Boring with Direct Push Portal to Portal	\$ 399.00	Hour
G213	Environmental Groundwater Sampling with Grundfos, Portal to Portal	\$ 289.00	Hour
G214	Environmental Analysis of soil for waste classification		Quote/Sample
G215	Environmental Analysis of liquid for waste classification		Quote/Sample
G216	Ground Resistance Tester (Four Point Method), plus travel	\$ 1,700.00	Each
G217	Potholing, two-man crew	\$ 600.00	Hour

Mix Design Review

Code	Item	\$/Unit	Unit
D250	Review of Concrete Mix Design	\$ 168.00	Each
D251	Review of Grout Mix Design	\$ 168.00	Each
D252	Review of Mortar Mix Design	\$ 168.00	Each
D253	Review of Asphalt Mix Design	\$ 210.00	Each

Sample Pick-Up/Hold

Code	Item	\$/Unit	Unit
All hold samples are charged at the same rate as the testing rate			
U303	Technician for Specimen pick up, minimum 2 hours	\$ 110.00	Hour
U304	Vehicle (Up to 100 miles)	\$ 75.00	Trip

Field Equipment Charges

Code	Item	\$/Unit	Unit
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E350	Brass Mold	\$	21.00	Each
E351	Concrete Air Meter	\$	53.00	Day
E352	Concrete Unit Weight (Scale, Bucket, Rod and Mallet)	\$	32.00	Day
E353	Field Vehicle Usage (Up to 100 miles)	\$	74.00	Trip
E354	Concrete/Asphalt Coring Equipment rental (min 4 hrs and 8 hrs after)	\$	200.00	Hour
E355	Fireproofing Adhesion/Cohesion	\$	21.00	Test
E356	Hand Auger Equipment	\$	131.00	Day
E357	Level D Personal Protective Equipment (PPE), per person	\$	42.00	Day
E358	Liquid Penetrating Consumables	\$	32.00	Day
E359	Magnetic Particle Equipment and Consumables	\$	42.00	Day
E360	Ultrasonic Equipment and Consumables	\$	68.00	Day
E361	Nuclear Density Gauge Usage	\$	19.00	Hour
E362	Compaction Test, per location	\$	21.00	Test
E363	Portable Concrete Laboratory-not including Technicians	\$	-	Quote/Day
E364	Pachometer (Rebar Locator)	\$	58.00	Day
E365	Environmental PID Usage	\$	200.00	Day
E366	Pull Test Equipment	\$	74.00	Day
E367	Sand Cone Test Kit (Scale, Burner, Sand Cone Apparatus)	\$	179.00	Day
E368	Schmidt Hammer	\$	53.00	Day
E369	Torque Wrench, Small	\$	21.00	Day
E370	Torque Wrench, Large	\$	37.00	Day
E371	Torque Multiplier (Skidmore)	\$	95.00	Day
E372	Miscellaneous Equipment Charge	\$	-	Quote Each
E373	Vapor Emission Kit	\$	58.00	Each
E374	Field Resistivity Meter	\$	236.00	Day
E375	Water Level Meter	\$	79.00	Day
E376	Environmental pH/Turbidity/Conductivity/Temp Meter	\$	110.00	Day
E377	Environmental FID Usage	\$	110.00	Day
E378	Environmental groundwater sampling pump	\$	215.00	Day
E379	XRF Lead Analyzer	\$	131.00	Day
E380	Relative Humidity	\$	74.00	Day

Schedule of Fees for Laboratory Services

Concrete Tests

Code	Item		\$/Unit	Unit
C400	6" x 12" Cylinder: Compression Strength (ASTM C39)	\$	37.00	Test
C401	6" x 6" x 18" Flexural Beams Not Exceeding Referenced Size (ASTM C78, C293, or CTM 523)	\$	84.00	Test
C402	Cylinders: Splitting Tensile Strength (ASTM C496)	\$	84.00	Test
C403	Core Compression including Trimming (ASTM C39)	\$	53.00	Test
C404	Coring of Test Panels in Lab	\$	26.00	Each
C405	Diamond Sawing of Cores or Cylinders (ASTM C642)	\$	26.00	Test
C406	Density, Absorption, and Voids in Hardened Concrete (ASTM C642)	\$	315.00	Test
C407	Modulus of Elasticity Static Test (ASTM C469)	\$	131.00	Test
C408	Unit Weight Including Lightweight Concrete	\$	68.00	Test
C409	Drying Shrinkage Up to 28 Days: Three 3" x 3" or 4" x 4" Bars, Five Readings up to 28 Dry Days (ASTM C157)	\$	394.00	Test
C410	Additional Reading	\$	47.00	Set of 3 Bars
C411	Storage Over Ninety (90) Days	\$	37.00	Set of 3 Bars/Month
C435	Coefficient of Thermal Expansion of Concrete (CRD 39, AASHTO T336)	\$	840.00	Test
C436	Compression Test (ASTM C495 and C472)	\$	47.00	Test
C437	Air Dry Density (ASTM C472)	\$	37.00	Test
C438	Oven Dry Density (ASTM C495)	\$	63.00	Test
C439	Sample Trimming in the lab, up 6" diameter	\$	21.00	Test

Concrete Block, ASTM C140

Code	Item		\$/Unit	Unit
C412	Compression (3 Required Per ASTM)	\$	63.00	Each
C413	Absorption/Moisture Content/Oven Dry Density (3 Required per ASTM)	\$	95.00	Each



C414	Linear/Volumetric Shrinkage (ASTM C426)	\$ 105.00	Test
C415	Web and Face Shell Measurements	\$ 47.00	Test
C416	Tension Test	\$ 179.00	Test
C417	Core Compression	\$ 58.00	Test
C418	Shear Test of Masonry Cores: 2 Faces	\$ 95.00	Test
C419	Efflorescence Test (3 Required), each	\$ 58.00	Test

Laboratory Trial Batch: Cement, Concrete, Grout and Mortar

Code	Item	\$/Unit	Unit
L450	All trial batch for cement, concrete, grout, mortar, etc		Quote Each

Brick Masonry Tests

Code	Item	\$/Unit	Unit
M500	Modulus of Rupture: Flexural (5 Required Per ASTM), each	\$ 58.00	Test
M501	Compression Strength (3 Required Per ASTM), each	\$ 53.00	Test
M502	Absorption: 5 Hour or 24 Hour (5 Required), each	\$ 53.00	Test
M503	Absorption (Boil): 1, 2, or 5 Hours (5 Required), each	\$ 84.00	Test
M504	Initial Rate of Absorption (5 Required), each	\$ 42.00	Test
M505	Efflorescence (5 Required), each	\$ 89.00	Test
M506	Core: Compression, each	\$ 74.00	Test
M507	Shear Test on Brick Core: 2 Faces, each	\$ 95.00	Test

Masonry Prisms

Code	Item	\$/Unit	Unit
M508	Compression Test: Composite Masonry Prisms Up To 8" x 16"	210	Test
M509	Compression Test: Composite Masonry Prisms Larger Than 8" x 16"	305	Test
M510	Masonry: Cutting of Cubes or Prisms	74	Test

Mortar and Grout

Code	Item	\$/Unit	Unit
M511	Compression: 2" x 4" Mortar Cylinders	47	Test
M512	Compression: 3" x 3" x 6" Grout Prisms, Includes Trimming	63	Test
M513	Compression: 2" Cubes (ASTM C109)	63	Test
M514	Compression: Cores (ASTM C42)	63	Test
M515	Mortar Expansion (ASTM C806)	315	Test

Fireproofing Tests

Code	Item	\$/Unit	Unit
F550	Oven Dry Density	79	Test
F551	Adhesion/Cohesions Testing, per hour, 4 hour minimum	126	Test

Gunite and Shotcrete Tests

Code	Item	\$/Unit	Unit
C420	Core Compression Including Trimming (ASTM C42)	63	Test
C421	Compression 6" x 12" Cylinders	37	Test
C422	Compression: Cubes	42	Test

Soils and Aggregate Tests

Code	Item	\$/Unit	Unit
S600	Atterberg Limits/Plasticity Index (ASTM D4318)	\$ 147.00	Test
S601	Chloride and Sulfate Content (CTM 417, CTM 422)	\$ 152.00	Test
S602	Consolidation, Full Cycle (ASTM 2435, CTM 219)	\$ 289.00	Test
S603	Cleanness Value: 1" x #4 (CTM 227)	\$ 194.00	Test
S604	Cleanness Value: 2.5" x 1.5" or 1.5" x .75" (CTM 227)	\$ 310.00	Test
S605	Corrosivity Series: Sulfate, Cl, pH (CTM 643 and 417)	\$ 210.00	Test
S606	Lab Resistivity	\$ 131.00	Test
S607	Direct Shear Test (ASTM D3080)	\$ 268.00	Test



S608	Direct Shear Test, per point	\$ 116.00	Test
S609	Direct Shear Test Sample Remolding (ASTM D3080)	\$ 47.00	Test
S610	Durability Index Fine Aggregate	\$ 168.00	Test
S611	Expansion Index (ASTM D4829, UBC 18-2)	\$ 163.00	Test
S612	Durability Index: Coarse Aggregate	\$ 168.00	Test
S613	Maximum Density: Methods A/B/C (ASTM D1557 or D698, CTM 216)	\$ 194.00	Test
S614	Maximum Density: Check Point abrasion (ASTM D1557)	\$ 79.00	Test
S615	Maximum Density: AASHTO C (Modified) (AASHTO T-180)	\$ 210.00	Test
S616	Moisture Density Rock Correction	\$ 168.00	Test
S617	Moisture Content (ASTM D2216, CTM 226)	\$ 26.00	Test
S618	Density: Ring Sample (ASTM D2937)	\$ 32.00	Test
S619	Density: Shelby Tube Sample (ASTM D2937)	\$ 58.00	Test
S620	Organic Impurities (ASTM C40)	\$ 100.00	Test
S621	Failing Head Permeability (ASTM D2434)	\$ 263.00	Test
S622	R-Value: Soil (ASTM 2844)	\$ 373.00	Test
S623	R-Value: Aggregate Base (ASTM D2844)	\$ 373.00	Test
S624	Sand Equivalent (ASTM D2419, CTM 217)	\$ 137.00	Test
S625	Soil Classification (ASTM D2487)	\$ 37.00	Test
S626	Sieve #200 Wash Only (ASTM D1140)	\$ 100.00	Test
S627	Sieve with Hydrometer: Sand to Clay (ASTM D422)	\$ 305.00	Test
S628	Sieve Analysis including Wash (ASTM C136)	\$ 179.00	Test
S629	Sieve Analysis Without Wash	\$ 126.00	Test
S630	Specific Gravity and Absorption: Coarse (ASTM C127, CTM 202)	\$ 100.00	Test
S631	Specific Gravity and Absorption: Fine (ASTM C128, CTM 207)	\$ 168.00	Test
S632	Swell/Settlement Potential: One Dimensional (ASTM D4546)	\$ 173.00	Test
S633	Unit Weight Coarse Aggregate	\$ 84.00	Test
S634	Unit Weight Fine Aggregate	\$ 84.00	Test
S635	Voids in Aggregate (ASTM C29)	\$ 95.00	Test
S636	Unconfined Compression (ASTM D2166, CTM 221)	\$ 105.00	Test
S637	LA Rattler	\$ 205.00	Test
S638	pH of soil	\$ 26.00	Test
S639	Pocket Penetration Test	\$ 11.00	Test

Asphalt Concrete Tests

Code	Item	\$/Unit	Unit
A650	Asphalt Core Density	\$ 63.00	Test
A651	Extraction % AC by Ignition Oven (CTM 382)	\$ 184.00	Test
A652	Gradation on Extracted Asph (ASTM D6507 and D5444, CTM 202, and CTM 382)	\$ 105.00	Test
A653	Moisture Content (CTM 370)	\$ 79.00	Test
A654	Maximum Theoretical Specific Gravity (RICE) (ASTM D2041, CTM 309)	\$ 168.00	Test
A655	Specific Gravity and Absorption: Coarse (ASTM C127, CTM 206)	\$ 95.00	Test
A656	Specific Gravity and Absorption: Fine (ASTM C128, CTM 207)	\$ 168.00	Test
A657	Sieve Analysis (ASTM D5444 and C136)	\$ 100.00	Test
A658	Sieve Analysis with Wash (ASTM D5444)	\$ 147.00	Test
A659	Sand Equivalent (ASTM D2419)	\$ 142.00	Test
A660	5 pt LTMD Bulk Specific Gravity (CTM 308, CTM 375)	\$ 299.00	Test
A661	Flat and Elongated Particles (ASTM D4791)	\$ 221.00	Test
A662	Fine Aggregate Angularity (AASHTO T304 A)	\$ 205.00	Test
A663	Maximum Density HVEEM (ASTM D1560)	\$ 221.00	Test
A664	Maximum Density Marshall (ASTM D1559 and D561)	\$ 221.00	Test
A665	Mix Stability (CTM 304)	\$ 221.00	Test
A668	Wet track Abrasion Loss (ASTM D3910), each	\$ 184.00	Test
A669	Extraction % of Emulsion (ASTM D6307)	\$ 163.00	Test
A670	Slurry seal field consistency test (ASTM D3910)	\$ 89.00	Test

Reinforcing Steel

Code	Item	\$/Unit	Unit
R700	Bend Test: #11 or Smaller	\$ 68.00	Test
R701	Bend Test: Larger Than # 11	\$ 100.00	Test



R702	Tensile Test: # 11 or Smaller	\$ 89.00	Test
R703	Tensile Test: # 14	\$ 121.00	Test
R704	Tensile Test: # 18	\$ 300.00	Test
R705	Slippage Test In Addition to Tensile Test (Per Caltrans 52-1.08C)	\$ 350.00	Test
R706	Tensile Test: Mechanical Splice # 11 and Smaller	\$ 130.00	Test
R707	Tensile Test: Mechanical Splice # 14	\$ 180.00	Test
R708	Tensile Test: Mechanical Splice # 18	\$ 350.00	Test
R709	Tensile Test: Welded # 11 and Smaller	\$ 90.00	Test
R710	Tensile Test: Welded # 14	\$ 130.00	Test
R711	Tensile Test: Welded # 18	\$ 300.00	Test
R712	Sample Straightening for Bend or Tensile Test (if required)	\$ 65.00	Test
R713	Testing Multi-Wire Steel Prestressing Strand	\$ 350.00	Test
R714	Tensile Test: T-Head #11 and Smaller	\$ 160.00	Test
R715	Tensile Test: T-Head #14	\$ 210.00	Test
R716	Tensile Test: T-Head #18	\$ 300.00	Test
R717	Tensile Test: Welded Hoops # 11 and Smaller	\$ 130.00	Test
R718	Tensile Test: Welded Hoops # 14	\$ 180.00	Test

Metal Testing

Code	Item	\$/Unit	Unit
R714	Hardness Test (Rockwell) and Brinell (ASTM E18)	\$ 79.00	Test
R715	Hardness Test of Nuts	\$ 89.00	Test
R716	Hardness Test of Bolts	\$ 105.00	Test
R717	Hardness Test of Washers	\$ 89.00	Test

Concrete Coring Services

Code	Item	\$/Unit	Unit
C423	Equipment Concrete (4 and 8 hour minimum)	\$ 210.00	Hour
	Individual Core Prices (all prices are for a four core minimum job):	\$ -	
C424	Slab on Grade Coring for 2",3" and 4" Diameter (first 6" depth) each	\$ 74.00	Test
C425	Slab on Grade Coring for 6" and 8" Diameter (first 6" depth) each	\$ 79.00	Test
C426	Slab on Grade Concrete Core (price per inch after 6" depth)	\$ 11.00	Test
C427	Wall Cores 2",3" and 4" (first 6" in depth) each	\$ 89.00	Test
C428	Wall Concrete Core (price per inch after 6" in depth), per inch (Wall core prices based on Contractor supplying access to area to be cored)	\$ 11.00	Inch
	Miscellaneous Concrete Coring Prices:	\$ -	
C429	Patching Slab on Grade Cored Holes with 2500 psi Concrete Patch, each	\$ 21.00	Test
C430	Thickness Determination per ASTM C42, each	\$ 21.00	Test
C431	Compression Strength Determination	\$ 68.00	Test

Asphalt Concrete Coring Services

Code	Item	\$/Unit	Unit
	Alternate Individual Core Prices (all prices are for a four core minimum job):		
A661	Asphaltic Concrete Cores 2",3" and 4" Diameter (First 6" in depth), each	\$ 74.00	Test
A662	Asphaltic Concrete Cores 6" and 8" Diameter (First 6" in depth), each	\$ 74.00	Test
A663	Asphaltic Concrete Cores price per inch after 6" in depth, each	\$ 11.00	Test
	Miscellaneous Asphaltic Coring Prices:		
A664	Patching of Core Drilled Holes Using Cold Patch Material, each	\$ 32.00	Test
A665	Thickness Determination per ASTM C42, each	\$ 37.00	Test
A666	Specific Gravity for Determination of Percent Compaction per ASTM D 2726, each	\$ 47.00	Test
A667	Specific Gravity for Determination of Percent Compaction by Paraffin, each	\$ 68.00	Test

Environmental Tests

Code	Item	\$/Unit	Unit
N800	Asbestos Polarized Light Microscopy (PLM) 3-Day Turnaround, each	\$ 21.00	Test
N801	Asbestos Polarized Light Microscopy (PLM) 24-Hour Turnaround, each	\$ 42.00	Test
N802	Asbestos Polarized Light Microscopy (PLM) 8-Hour Turnaround, each	\$ 74.00	Test

Rates can be updated by contract amendment only.

TIME & MATERIALS PRICE SCHEDULE

Issued: 01 June 2021
Valid through December 31 2024

This Time & Materials Price Schedule specifies the rates charge by CPP, Inc. for work performed on a time-and-materials basis.

Personnel: The services of CPP personnel are charged at the rates shown below. These rates include salary, benefits, overhead and profit.

Category of Personnel	Hourly Rate (USD)
Principal	\$474
Senior Associate/Associate Principal	\$371
Associate	\$338
Senior Engineer	\$263
Senior Engineering Technician	\$252
Senior CAD Designer	\$216
Project Engineer	\$212
Engineer	\$187
Project Manager	\$167
CAD Operator	\$146
Administration	\$140
Clerical	\$130
Engineering Technician	\$128
Model Construction Technician	\$122
Machinist	\$112

Time spent traveling is chargeable to the Client in the same fashion as time worked.

Equipment: Use of certain equipment listed below is charged at the rates shown. These rates include overhead and profit.

Equipment Type	Hourly Rate (USD)
Wind Tunnel	\$490
CFD Computing	\$420
Analytical Modeling Tools	\$400
Pressure Measurement System	\$313
Flame Ionization Detection System	\$248
Aeroelastic Measurement System	\$232
High-Frequency Base Balance System	\$193
Velocity Measurement System	\$164
Flame Ionization Gas Chromatograph System	\$160
Data Acquisition and Processing System	\$160
Video System	\$160
CNC Router	\$68
SLA – 3D Printer	\$48
Model Shop Material & Equipment	\$23
FDM – 3D Printer	\$3

The above list of equipment reflects conditions as of the date issued. Rates for equipment acquired after this Schedule is issued will be established upon acquisition and notice of the rate will be provided to the Client.

Other Charges: Other costs incurred by CPP, Inc. in the direct performance of time-and-material portions of the Client's work will be charged to the Client at actual cost. Examples of such other costs include, but are not limited to air fare, lodging, subsistence, supplies, model construction materials, and subcontract services. Note that these other charges apply only to projects proposed on a time-and-materials basis. Those projects proposed on a fixed-price basis will incur no additional charges unless there is a mutually agreed upon change in the scope of work.

Rates can be updated by contract amendment only.



HOURLY RATES VALID THROUGH DECEMBER 31, 2024

COST MANAGEMENT

DISCIPLINE	HOURLY RATE
Vice President	\$310.00
Managing Director / Director / Regional Director	\$235.00
Associate Director	\$210.00
Senior Cost Manager	\$190.00
Cost Manager	\$175.00
Assistant Cost Manager / Estimating Technician / Intern	\$110.00

SCHEDULING

DISCIPLINE	HOURLY RATE
Senior Scheduler	\$210.00
Scheduler	\$185.00

Rates can be updated by contract amendment only.

Made in Space hourly rates
Through year 2024:

Principal	\$250
Senior Associate	\$200
Designer	\$150
Admin	\$90

Rates can be updated by contract amendment only.

Made in Space
818 S Broadway
Suite 1000
Los Angeles
California 90014

STARQ inc.

Billing Hourly Rate Sheet

<u>Category</u>	<u>Rate/Hour</u>
Principal	220.00
Project Manager	200.00
Senior Designer	180.00
Designer	140.00
Intern	90.00

These Billing rates are for January 1st 2021 to December 31st 2024

Rates can be updated by contract amendment only.

BILLING RATES

Valid through December 31, 2024

Team Member	Role	Hourly Rate (Subject to annual changes)
Michael Zilis	Principal Landscape Architect I	\$205
Lara Rose	Principal Landscape Architect II	\$165
Nathan Kappen	Project Manager I	\$125
Job Title		
		Hourly Rate (Subject to annual changes)
	Principal Landscape Architect I	\$205
	Principal Landscape Architect II	\$165
	Principal Planner	\$165
	Project Manager I	\$125
	Project Manager II	\$105
	Project Manager III	\$100
	Project Landscape Architect I	\$125
	Project Landscape Architect II	\$110
	Project Landscape Architect III	\$105
	Project Landscape Architect IIII	\$100
	Quality Control/ Quality Assurance	\$140
	Production Personnel I	\$125
	Production Personnel II	\$110
	Production Personnel III	\$100
	Production Personnel IV	\$95
	Production Personnel V	\$90
	Production Personnel VI	\$80
	Administration I	\$140
	Administration II	\$125
	Administration III	\$105
	Administration IV	\$80

Rates can be updated by contract amendment only.

Exhibit "E-1"

Updated List
of
Subcontractors

EXHIBIT "E"-1"
Consultant's Key Employees, Subconsultants and Subconsultant Staff

Harley Ellis Devereaux Corporation:

**Peter Devereaux
Brent Miller
Kevin Shibata
Duane Fisher**

Hastings + Chivetta:

**Eric Kocher
Carl Drafall
Mark Keane**

Roto Architects

**Michael Rotundi
Nels Long**

Counsilman-Hunsaker

**Mike Gartland
Daniel Borgatti**

Other Subconsultants

**Saiful Bouquet
Cumming
Moffat & Nichol
Walker I Macy
AESCO
Made In Space Inc.
Veneklasen Associates
Woden Fire, LLC
Terra-Petra
Starq Inc.
CPP, Inc.
Guida Surveying Inc.**