

THIRD AMENDMENT TO AGREEMENT NO. 34406

34406

THIS THIRD AMENDMENT TO AGREEMENT NO. 34406 ("Amendment") is made and entered, in duplicate, as of March 19, 2020 for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on August 16, 2016, by and between JACOBS PROJECT MANAGEMENT CO., a Delaware corporation ("Consultant"), with a place of business at 2600 Michelson Drive, Suite 500, Irvine, California 92612, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, City and Consultant (the "Parties") entered into Agreement No. 34406 (as previously amended, the "Agreement") whereby Consultant agreed to provide the specialized services as described in Request for Qualifications AP16-105; and

WHEREAS, City and Consultant desire to extend the term one (1) additional one-year period, add \$2,100,000 to the Agreement and attach updated rate sheets;

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

1. Section 1.A. of the Agreement is hereby amended to read as follows:

"A. Consultant shall furnish specialized services generally described in the RFQ and more particularly described in Exhibit "A-2" to the Agreement and Exhibit "A-3" to the First Amendment, all incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services in the manner described below, not to exceed Seven Million Seven Hundred Fifty Thousand Dollars (\$7,750,000), at the rates or charges shown in Exhibit "B"."

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

"2. TERM. The term of this Agreement shall commence at midnight on August 29, 2016, and shall terminate at 11:59 p.m. on August 28, 2021, unless sooner terminated as provided in this Agreement, or unless the services or the Project is

OFFICE OF THE CITY ATTORNEY  
CHARLES PARKIN, City Attorney  
411 West Ocean Boulevard, 9th Floor  
Long Beach, CA 90802-4074

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completed sooner."

3. The Rates contained in Exhibit "B-3" to this Amendment hereby supplement the rates currently attached to the Agreement. Exhibit "B-3" to this Amendment is hereby incorporated into the Agreement as a supplement to the existing Exhibit "B".

4. Except as expressly modified herein, all of the terms and conditions contained in Agreement No. 34406 are ratified and confirmed and shall remain in full force and effect.

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.

JACOBS PROJECT MANAGEMENT CO.,  
a Delaware corporation

March 24, 2020, 2020

By [Signature]  
Name Issam Khalaf  
Title Vice President, West PMCM Operations

March 30, 2020, 2020

By [Signature]  
Name KOSAL KRISHNAN  
Title VICE PRESIDENT, SO CALIFORNIA OPERATIONS

"Consultant"

CITY OF LONG BEACH, a municipal corporation

May 12, 2020

By [Signature]  
City Manager

**EXECUTED PURSUANT  
TO SECTION 301 OF  
THE CITY CHARTER**

"City"

This Third Amendment to Agreement No. 34406 is approved as to form on

May 11, 2020.

CHARLES PARKIN, City Attorney  
By [Signature]  
Deputy

## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

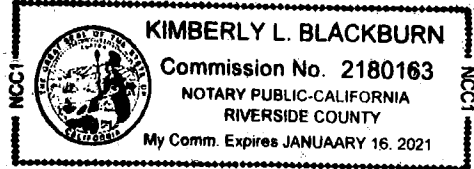
State of California  
County of Orange )

On March 24, 2020 before me, Kimberly L. Blackburn, Notary Public  
(insert name and title of the officer)

personally appeared Issam Khalaf  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Kimberly L. Blackburn (Seal)

## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California  
County of Orange )

On March 30, 2020 before me, Kimberly L. Blackburn, Notary Public  
(insert name and title of the officer)

personally appeared Kosal Krishnan  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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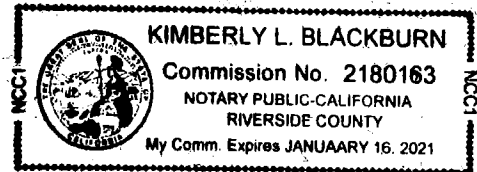


EXHIBIT "B-3"

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



2883 East Spring Street, Suite 300 Tel 562.426.3355  
Long Beach CA 90806 Fax 562.426.6424

April 22, 2019  
Proposal No. 18-1473 ; 2019 Rebid

Brook Corney, CCM  
Jacobs  
Construction Manager | PMCM  
909.583.1159 Mobile  
[Brook.Corney@jacobs.com](mailto:Brook.Corney@jacobs.com)

**Subject: Proposal to Perform Geotechnical Oversight, Material Testing and Deputy Inspection Services**

**Reference: Terminal Area Improvements at Long Beach Airport BOOA Development**

Dear Mr. Corney:

Twining, Inc. (Twining) is pleased to submit this proposal to perform geotechnical oversight and on-site soils compaction testing during grading and utilities installation, as well as material testing and deputy inspection services during the construction of the subject project.

#### **PROJECT UNDERSTANDING**

The project scope will entail material testing and deputy inspection during each of the nine phases of construction which will include grading and compaction of building pads and underground utilities, installation of reinforced concrete foundations, erection of structural steel, application of spray-applied fireproofing, seismic related inspection and non-destruct testing (NDT).

#### **SCOPE OF SERVICES**

##### **GEOTECHNICAL, SPECIAL INSPECTION AND MATERIAL TESTING SCOPE OF SERVICES**

Please note that we have provided in our scope and cost projection worksheet allowances for the following comprehensive testing and inspection requirements:

- Geotechnical engineering, site grading, compaction/backfill, during utilities installation;
- Reinforced concrete;
- Structural steel (field visual and non-destruct testing, assumes fabricator is licensed and approved);
- Spray-applied fireproofing (assumed);
- Inspection: Epoxy dowels (periodic), anchors (periodic) and embeds (periodic).

### **GEOTECHNICAL ENGINEERING OBSERVATIONS AND TESTING SCOPE**

We propose to perform geotechnical engineering observation and testing during fill placement for grading of building pads, foundation pile installation, utility installation, pavements, and miscellaneous grading as needed. We will assume the role of Geotechnical Engineer of Record (GEOR) and a description of our proposed services are presented as follows:

- **Geotechnical Observations:** Our GEOR will perform periodic observations of site activities involving geotechnical engineering components on an as-needed basis. The purpose of the observations is to check for conformance with the project geotechnical recommendations. Observations during pile and retaining wall installation, backfill and fill placement will be performed by our LA County Licensed soil technician and reviewed by the GEOR.
- **Field Density Testing of Soil:** We will perform field density testing during the fill placement of the subgrade soil supporting new structures, footings, concrete slabs, site utilities, and flatwork. Testing will utilize the nuclear gauge method, the sand cone method, or both. Field technicians on site will prepare a daily compaction test report in addition to the daily field reports as required by Twining and will submit a copy to all the relevant personnel on a daily basis.
- **Observe and Test Asphalt Concrete:** We will provide continuous observation and testing during the placement of asphalt concrete at the site. Asphalt concrete compaction testing will be performed by a technician using a nuclear gauge to verify asphalt concrete compaction requirements. The technician will be on site during asphalt concrete placement.
- **Laboratory Testing:** We will perform laboratory testing on representative samples of soils and asphalt concrete. We anticipate the testing will include maximum dry density-optimum moisture relationship, classification and expansion index for soil materials and extraction, gradation, and HVEEM stability tests.
- **Final Geotechnical Verification Report:** Upon completion of the backfill and foundations, we will prepare a Final Geotechnical Verification Report summarizing our observations and test results.
- **Geotechnical Engineering Support:** We will provide as-needed geotechnical engineering support during construction upon assuming the role of geotechnical engineer of record for the project. We will provide plan review, responses to RFI's, and other as-needed geotechnical engineering support in order to complete the project in accordance with the project requirements.

### **BUDGET COST ANALYSIS**

Though we have attached a budgetary cost estimate for our services, these estimates are not intended to be lump sums or guaranteed costs. Please note these estimates do not account for overtime and are contingent upon the phasing of the project and progress of construction.

### **LIMITATIONS**

Please notify us immediately if the proposed scope of services does not meet your current needs, or if any significant changes are made to the proposed development so that we can revise our scope of services. Revision of the scope of services may affect the estimated fee.

There are inherent risks related to subsurface explorations. The estimated fee in this proposal is not sufficient to cover costs related to the repair of damaged underground utilities. Twining will not be responsible for the repair or the cost of repairs on any damaged underground utilities, unless it is due to the sole negligence of Twining.

Our field explorations will not include sampling, testing, or assessment of toxic or hazardous substances, if such are encountered, or evaluation of other environmental issues. If, during the subsurface exploration program, foreign or odorous materials are encountered, drilling will be terminated and the client will be advised of the condition.

Please note that our scope of services does not include draft reports, post-report consultation, and review of grading or construction plans. However, these services can be provided, if requested, under a separate proposal.

The proposed scope of services is consistent with the level of care and skill ordinarily exercised by engineering professionals with experience in this area. No other warranty, either expressed or implied, is made.

### **CLOSURE**

If our proposed scope of services and the attached terms and conditions are acceptable, please sign and return the "Proposal Acceptance" block below to us. Should you have any questions or comments, please contact me at your convenience. I can be reached at (562) 522-1179.

Respectfully submitted,  
**TWINING, INC.**



Talin Espinoza  
Senior Vice President



Steve Schiffer  
Vice President, Business Development



Project Name: Terminal Area Improvements at Long Beach Airport B00A Development  
 Proposal No: 18-1473-42219 rebid  
 Date: April 22, 2019

Twining, Inc. - Long Beach  
 Talm Espinoza/Slave Schiffr  
 626 825 9442\_562.522.1179

Description of Work	Assumptions	Average Manpower	Anticipated Days				Total
<b>DIVISION 2: SITE CONSTRUCTION</b>							
Soils Technician	Grading / Excavation	Site Prep All Phases & Site Improvement @ Phase D	1	45	360	Hours	\$ 100.00 \$ 36,000.00
Soils Technician			1	35	280	Hours	\$ 100.00 \$ 28,000.00
Nuclear Gauge	Utilities	All Phases			720	Hours	\$ 8.00 \$ 4,320.00
Registered Geotechnical Engineer					16	Hours	\$ 180.00 \$ 2,880.00
Staff Engineer/Geologist	Project Oversight	Portal to portal			20	Hours	\$ 130.00 \$ 2,600.00
Geotechnical Laboratory Testing					1	Allowance	\$ 1,500.00 \$ 1,500.00
Clerical / Report Distribution							2%
SUB-TOTAL							\$ 76,806.00
<b>DIVISION 3: CONCRETE</b>							
Special Inspector/Registered Deputy Inspector - Reinforced Concrete	Forms/SOG	All Buildings	1	48	368	Hours	\$ 100.00 \$ 36,800.00
Special Inspector/Registered Deputy Inspector - Seismic Anchors, etc.			0.5	20	80	Hours	\$ 100.00 \$ 8,000.00
Project Manager	Portal to portal				16	Hours	\$ 150.00 \$ 2,400.00
Compression Strength: 6" x 12" or 4" x 8" Cylinders					120	Tests	\$ 32.00 \$ 3,840.00
Standard Sample Pickup					36	Each	\$ 10.00 \$ 360.00
Clerical / Report Distribution					2%	\$ 1,028.00	
SUB-TOTAL							\$ 52,428.00
<b>DIVISION 5: METAL</b>							
Shop Fabrication - Scope and estimate assumes fabrication will occur in a shop licensed and approved, therefore we have omitted steel shop inspection.							
Field	Structural Miscellaneous	Erection & Mt Decking, Phases A, B, C	1	75	600	Hours	\$ 100.00 \$ 60,000.00
AWS Certified Working Inspector			0.5	15	60	Hours	\$ 100.00 \$ 6,000.00
AWS Certified Working Inspector	Portal to portal		1	29	180	Hours	\$ 105.00 \$ 16,800.00
Nondestructive Testing Technician					20	Hours	\$ 150.00 \$ 3,000.00
Project Manager							2%
Clerical / Report Distribution						\$ 87,516.00	
SUB-TOTAL							\$ 87,516.00
<b>DIVISION 7: THERMAL AND MOISTURE PROTECTION</b>							
Fireproofing - Included							
<b>TERMS AND CONDITIONS</b>							
Parking if not provided by client		Will be provided by client			0	Daily	\$ - \$ -
SUB-TOTAL							\$ -
REMARKS: This proposal is based on the email request from Mr. David Anderson, dated July 20, 2018 along with the construction schedule dated 7/6/2018 and the Summary Schedule dated July 7/9/2018. See attached schedule of fees for additional terms and conditions.							
<b>GRAND TOTAL</b>							<b>\$ 210,750.00</b>





# Schedule of Fees 2018 - 2019

NOTE: Rates will be adjusted annually each July 1st to reflect increased costs.

**Personnel Rates: Per Hour Unless Otherwise Noted**

Task Code	Engineering and Consulting Personnel	Rate	Task Code	Shop Inspection Personnel, continued	Rate
10026	Senior Principal Advisor/Consultant	\$ 280.00	10325	Glue-Laminated Fabrication Inspector	Quotation
10001	Principal Engineer/Geologist	\$ 185.00	10328	Pre-Cast Concrete/Pipe Fabrication Inspector	\$ 110.00
10017	Metallurgical Engineer	\$ 180.00			
70000	Registered Geotechnical Engineer	\$ 180.00			
				<b>Task</b>	
				<b>Code</b>	<b>Non-Destructive Testing Personnel</b>
10010	Technical Advisor	\$ 180.00	10401	NDE Ultrasonic Testing Technician	\$ 105.00
10011	Material Scientist, Welding/NDT Consultant	\$ 1,100.00	10403	NDE Magnetic Particle Testing Technician	\$ 105.00
70003	Registered Geologist/Certified Engineering Geologist	\$ 170.00	10405	NDE Dye Penetrant Testing Technician	\$ 105.00
10003	Senior Engineer/Geologist	\$ 165.00	10305	Combination NDE Technician/Welding Inspector	\$ 105.00
10009	Registered Civil Engineer	\$ 160.00	10409	Radiographic Testing (crew of 2)	\$ 295.00
60003	Roofing/Waterproofing Consultant	\$ 185.00	10020	NDE Engineer	\$ 160.00
10013	Project Engineer/Manager	\$ 150.00			
30000	Quality Control Manager	\$ 140.00			
				<b>Task</b>	
				<b>Code</b>	<b>Equipment Usage (Daily Unless Otherwise Noted)</b>
10005	Senior Staff Engineer/Geologist	\$ 135.00	95318	Skidmore	\$ 40.00
10007	Staff Engineer/Geologist	\$ 130.00	95309	Torque Wrench, Small	\$ 15.00
10015	Quality Control Administrator	\$ 120.00	95312	Torque Wrench, Large	\$ 25.00
10019	Metallurgical Technician	\$ 95.00	95315	Torque Multiplier	\$ 40.00
100001	CADD Operator/Draftsperson	\$ 85.00	95321	Air Meter	\$ 20.00
70107	Field Supervisor	\$ 115.00	95324	Brass Mold	\$ 20.00
91030	Safety Supervisor	\$ 115.00	95343	Nuclear Gauge (Per Hour)	\$ 9.00
20600	Laboratory Manager	\$ 105.00	95333	Pull Test Equipment	\$ 60.00
98000	Laboratory Technician	\$ 85.00	95348	Concrete/Asphalt Coring Equipment	\$ 600.00
100005	Expert Witness Testimony	\$ 495.00	95327	Pachometer	\$ 55.00
91010	Qualified SWPPP Developer	\$ 130.00	95336	Floor Flatness (Dipstick)	\$ 45.00
91000	Qualified SWPPP Practitioner	\$ 120.00	95330	Schmidt Hammer	\$ 20.00
			95341	Vapor Emission Test Kits	\$ 30.00
			95342	Relative Humidity Probe	\$ 60.00
			95339	UPV (Ultrasonic Pulse Velocity) Meter	\$ 280.00
			95351	Fireproofing Adhesion/Cohesion (Per Test)	\$ 20.00
			95300	A Scan Ultrasonic Equipment and Consumables	\$ 65.00
			95303	Magnetic Particle Equipment and Consumables	\$ 30.00
			95306	Liquid Penetrant Consumables	\$ 25.00
			95307	Phased Array Ultrasonic Equipment (Per Hour)	\$ 50.00
			95347	Ground Penetrating Radar (Per Hour)	\$ 50.00
			95345	Impact Echo	\$ 280.00
			95362	Ultrasonic Tomography	\$ 400.00
			95369	California Pavement Profilograph (Per Hour)	\$ 115.00
			95349	Inertial Profiler (Per Hour)	\$ 250.00
			95357	Project Dedicated Vehicle	\$ 100.00
			95362	Roller Compacted Concrete Vibrating Hammer/Tamping Plate	\$ 60.00
			95367	Half-cell Potential Equipment Set	\$ 250.00
			95368	Concrete Electrical Resistivity Meter	\$ 150.00
				<b>Task</b>	
				<b>Code</b>	<b>Specimen Pick-Up</b>
			20102	Standard Sample: Concrete Cylinders (Each)	\$ 10.00
			20101	Standard Sample: Mortar/Grout Cubes and Cores, Fireproofing, Rebar, and Epoxy Prisms (Each)	\$ 20.00
			20103	Over-size Sample: Masonry Prisms, Shotcrete Panels, Flexural Beams (Each)	\$ 47.00
			20104	Technician for Specimen Pick-Up Not Listed Above (Per Hour, 2-Hour Minimum)	\$ 80.00
			20107	Technician for Specimen Pick-Up Before 5:00 a.m. or After 5:00 p.m. Monday thru Friday, or All Day Saturday (Per Hour, 2-Hour Minimum Plus Mileage)	\$ 100.00
				<b>Task</b>	
				<b>Code</b>	<b>Jobsite Trailer, Mobile or On-site Laboratory</b>
			95360	Mobile laboratory for rapid set concrete (per shift not exceeding 12 hours) All others by quotation	\$ 375.00
				<b>Task</b>	
				<b>Code</b>	<b>Shop Inspection Personnel</b>
			10301	Structural Steel Fabrication Inspector	\$ 110.00
			10309	Batch Plant Quality Control Technician/Inspector	\$ 110.00



Task Code	Concrete Tests (Field Made Specimens)	Rate	Task Code	Chemical Analysis and Petrographic Examination of Concrete, continued	Rate
20201	6" x 12" or 4" x 8" Cylinder: Compression Strength (ASTM C39)	\$ 32.00	80126	Chemical Analysis for Water Soluble Chlorides (ASTM C1218) (includes sample prep)	\$ 100.00
20203	Density of Structural Lightweight Concrete Equilibrium or Oven Dry Method (ASTM C567)	\$ 75.00	80123	Chemical Analysis for Acid Soluble Chlorides (ASTM C1152) (includes sample prep)	\$ 250.00
20205	Core Compression Including Trimming (ASTM C42)	\$ 55.00	80193	Chloride Diffusion Coefficient of Cementitious Mixtures by Bulk Diffusion (ASTM C1556)	\$ 2,000.00
20207	6" x 6" x 18" Flexural Beams Not Exceeding Referenced Size (ASTM C78, C293 or CTM 523)	\$ 70.00	80129	Petrographic Examination of Hardened Concrete (ASTM 856) (Comprehensive)	\$ 1,600.00
20208	6" x 6" x 30" Flexural Beams (CTM 523)	\$ 85.00			
20209	Splitting Tensile Strength (ASTM C496)	\$ 85.00			
20211	Modulus of Elasticity Test (ASTM C469)	\$ 225.00			
80003	Rapid Chloride Permeability Test: Cylinders or Cores (ASTM C1202)	\$ 450.00			
80006	Density, Absorption, and Voids in Hardened Concrete (ASTM C642)	\$ 350.00			
40005	Flexural Toughness (ASTM C1609, Formerly ASTM C1018)	\$ 700.00			
40009	Coefficient of Thermal Expansion of Concrete (CRD 39, AASHTO T336)	\$ 500.00			
Task Code	Concrete Specimen Preparation	Rate	Task Code	Physical and Chemical Analysis of Cement	Rate
20151	Sawing of Specimens (Each)	\$ 25.00	80195	Physical Testing and Chemical Analysis of Portland Cement per Standard Requirements (ASTM C150)	\$ 1,100.00
20157	Coring of Specimens in Lab (Each)	\$ 25.00	80100	Chemical Analysis of Portland Cement per Standard Requirements (ASTM C150)	\$ 550.00
			80103	Physical Testing of Portland Cement per Standard Requirements (ASTM C150)	\$ 600.00
			80194	Physical Testing of Type K Cement, Mortar Expansion (ASTM C806)	\$ 600.00
			80106	Partial Analysis or Specific Physical Tests	Quotation
			80110	Sulfates Resistance of Hydraulic Cement (ASTM C1012) - 6 months	\$ 2,000.00
			809111	Sulfates Resistance of Hydraulic Cement (ASTM C1012) - 12 months	\$ 2,200.00
Task Code	Laboratory Trial Batch: Concrete, Cement and Mortar	Rate	Task Code	Physical and Chemical Analysis of Fly Ash	Rate
30217	Compression Test Cylinders Made and Tested in Laboratory (ASTM C192, C35)	\$ 45.00	80140	Chemical Analysis of Fly Ash per Standard Requirements (ASTM C618)	\$ 550.00
30219	6" x 6" x 18" Flexural Beams Made and Tested in Laboratory (ASTM C192, C78)	\$ 85.00	80143	Physical Testing of Fly Ash per Standard Requirements (ASTM C618)	\$ 530.00
30221	6" x 6" x 30" Flexural Beams Made and Tested in Laboratory (ASTM C192, C293)	\$ 95.00	80146	Partial Analysis or Specific Physical Tests	Quotation
30223	Splitting Tensile Strength Cylinders Made and Tested in Laboratory (ASTM C192, C496)	\$ 100.00	80147	Chemical Analysis and Physical Testing of Fly Ash per Standard Requirements (ASTM C1618)	\$ 1,000.00
30225	Modulus of Elasticity Test Cylinders Made and Tested in Laboratory (ASTM C192, C469)	\$ 240.00			
30227	Density of Structural Lightweight Concrete Made in the Laboratory, Equilibrium or Oven Dry Method (ASTM C567)	\$ 85.00			
30201	Laboratory Trial Batch (ASTM C192)	\$ 450.00			
30203	Laboratory Trial Batch: Packaged Dry Concrete Including Verification of Slump, Air Content, Plastic Unit Weight, Six Cylinders for Compressive Strength (ASTM C387 and C192)	\$ 800.00			
30205	Drying Shrinkage Up to 28 Days: Three 3" x 3" or 4" x 4" Bars, Five Readings up to 28 Dry Days (ASTM C157)	\$ 450.00			
30230	Additional Reading, Per Set of Three Bars	\$ 45.00			
30231	Storage over Ninety (90) Days, Per Set of Three Bars, Per Month	\$ 30.00			
30207	Setting Time Up to 7 Hours (ASTM C403)	\$ 125.00			
30209	Bleeding (ASTM C232)	\$ 125.00			
30229	Concrete Restrained Expansion (ASTM C878)	\$ 475.00			
30211	Mix, Make and Test Mortar or Grout Specimens for Compressive Strength: Set of 6 (ASTM C109, C942)	\$ 400.00			
20263	Non-Shrink Grout: Height Change after Final Set (ASTM C10100)	\$ 450.00			
20265	Non-Shrink Grout: Height Change at Early Age (ASTM C027)	\$ 700.00			
30232	Cracking Resistance, Set of Three Rings, Laboratory Trial Batching, Test Until Cracking or up to 28 Days (ASTM 1581)	\$ 5,000.00			
30233	Evaluation of Pre-Packaged Masonry Mortars (ASTM C270)	\$ 1,100.00			
30234	Creep, ASTM C512 (One Year of Loading)	\$ 4,500.00			
Task Code	Chemical Analysis and Petrographic Examination of Concrete	Rate	Task Code	Soils and Aggregate Tests	Rate
80120	Chemical Analysis for Water Soluble Sulfates (ASTM C114) (includes sample prep)	\$ 130.00	30503	Abrasion: LA Rattler (ASTM C131)	\$ 185.00
			30505	Abrasion: LA Rattler (ASTM C535)	\$ 195.00
			70301	Atterberg Limits/Plasticity Index (ASTM D4318, CTM204)	\$ 150.00
			70303	California Bearing Ratio Excluding Maximum Density (ASTM D1883): Soil	\$ 550.00
			70304	California Bearing Ratio Excluding Maximum Density (ASTM D1883): Cement-Treated Soil	\$ 650.00
			70344	Cement-Treated Soil/Base Mix Design: includes three trial cement contents with three unconfined compressive strength specimens per cement content	\$ 3,000.00
			70305	Chloride and Sulfate Content (CTM 417, CTM 422)	\$ 130.00
			30403	Clay Lumps and Friable Particles (ASTM C142)	\$ 175.00
			30321	Cleanliness Value: 1" x #4 (CTM 227)	\$ 175.00
			30322	Cleanliness Value: 1.5" x .75" (CTM 227)	\$ 275.00
			70393	Collapse Potential Index (ASTM D5333)	\$ 175.00
			70396	Compressive Strength of Molded Soil-Cement Cylinders (ASTM D1833)	\$ 105.00
			70309	Consolidation Test: Full Cycle (ASTM 2435, CTM 219)	\$ 195.00
			70311	Consolidation Test: Time Rate per Load Increment (ASTM D2435, CTM 219)	\$ 45.00
			70313	Corrosivity Series: Sulfate, Cl, pH, Resistivity (CTM 643, 417, and 422)	\$ 245.00
			70315	Crushed/Fractured Particles (ASTM D5821, CTM 205)	\$ 175.00
			70317	Direct Shear Test: Remolded and/or Residual (ASTM D3080)	\$ 245.00



Task Code	Soils and Aggregate Tests, continued	Rate	Task Code	Soils and Aggregate Tests, continued	Rate
70319	Direct Shear Test: Undisturbed - Slow [CD] (ASTM D3080)	\$ 225.00	30317	Unit Weight Per Cubic Foot (ASTM C29, CTM 212)	\$ 125.00
70321	Direct Shear Test: Undisturbed - Fast [CU] (ASTM D3080)	\$ 195.00	30319	voids In Aggregate with Known Specific Gravity (ASTM C29, CTM 212)	\$ 125.00
70378	Durability Index: Per Method - A,B,C, or D (CTM 229, ASTM D3744)	\$ 210.00			
70325	Expansion Index (ASTM D4829, UBC 18-2)	\$ 170.00	Task Code	Asphalt Concrete Tests	Rate
75004	Fine Aggregate Angularity (AASHTO T304, ASTM C1252, CTM 234)	\$ 185.00	75031	HMA Mixing and Preparation	\$ 125.00
30507	Flat and Elongated Particle (ASTM D4791)	\$ 225.00	75032	HMA Mixing and Preparation with Aggregate Treatment	\$ 175.00
30508	Flat or Elongated Particle (ASTM D4791)	\$ 195.00	75033	Bulk Specific Gravity of Compacted Sample or Core: SSD (CTM 308C and ASTM D2726)	\$ 50.00
70331	Maximum Density: Methods A/B/C (ASTM D1557, D698, CTM 216)	\$ 1,100.00	75036	Bulk Specific Gravity of Compacted Sample or Core: Paraffin Coated (CTM 308A and ASTM D1188)	\$ 75.00
70333	Maximum Density: Check Point (ASTM D1557, D698)	\$ 65.00	75040	Emulsion Residue, Evaporation (ASTM D244)	\$ 150.00
70335	Maximum Density: AASHTO C [Modified] (AASHTO T-180)	\$ 195.00	75024	Extraction: % Bitumen (CTM 382, ASTM D6307)	\$ 160.00
70337	Moisture Content (ASTM D2216, CTM 226)	\$ 25.00	75027	Extraction: % Bitumen and Gradation (CTM 382, CTM 202, ASTM D6307, ASTM D5444)	\$ 205.00
70339	Moisture and Density: Ring Sample (ASTM D2937)	\$ 30.00	75028	Extraction: % Bitumen, Correction Factor (CTM 382, ASTM D6307)	\$ 325.00
70341	Moisture and Density: Shelby Tube Sample (ASTM D2937)	\$ 40.00	75030	Chemical Extraction: % Bitumen and Sieve Analysis (ASTM D2172 Method A or B, ASTM D5444)	\$ 245.00
70340	Moisture-Density Relations of Soil-Cement Mixtures Premixed in the Field (ASTM D558)	\$ 275.00	75042	Lab Tested Maximum Density: Hveem, 3 briquettes (CTM 304, CTM 308, ASTM D1561, ASTM D1188)	\$ 205.00
70342	Moisture-Density Relations of Soil-Cement Mixtures Mixed in the Lab (ASTM D558)	\$ 350.00	75057	Hveem Stabilometer Test, Premixed, 3 briquettes (CTM 304, CTM 366, ASTM D1560, ASTM D1561)	\$ 205.00
30401	Organic Impurities (ASTM C40, CTM 213)	\$ 100.00	75048	Lab Tested Maximum Density: Marshall, 3 briquettes (ASTM D6926, ASTM D2726)	\$ 205.00
70343	Permeability (ASTM D5084)	Quotation	75049	Lab Tested Maximum Density: Marshall 6" Specimen, 3 briquettes (ASTM D5581, ASTM D2726)	\$ 215.00
80001	Potential Reactivity: Chemical Method (ASTM C289)	\$ 475.00	75050	Lab Tested Maximum Density: Superpave Gyrotory Compacted Briquette, SSD, 1 briquette (ASTM D6925, ASTM D2726)	\$ 75.00
70394	Potential Reactivity: Mortar Bar Expansion Method, 14-Day Exposure (ASTM C1260)	\$ 750.00	75052	Lab Tested Maximum Density: Superpave Gyrotory Compacted Briquette, Paraffin, 1 briquette (ASTM D6925, ASTM D1188)	\$ 85.00
70391	Potential Reactivity: Mortar Bar Expansion Method, 28-Day Exposure (ASTM C1260)	\$ 800.00	75051	Maximum Theoretical Specific Gravity [RICE] (CTM 309, ASTM D2041)	\$ 155.00
70398	Potential Reactivity: Concrete Bar Expansion, Method (ASTM C1293), 12 month	\$ 2,400.00	75066	Marshall Stability and Flow, Cored Sample, each (ASTM D6927)	\$ 75.00
70399	Potential Reactivity: Concrete Bar Expansion, Method (ASTM C1293), 24 month	\$ 2,600.00	75069	Marshall Stability and Flow, Premixed, 3 briquettes (ASTM D6926, ASTM D6927)	\$ 205.00
70397	Potential Reactivity of Aggregate Combination, 14-Day Exposure, Mortar (ASTM C1567)	\$ 1,000.00	75106	Marshall Stability and Flow, Gyrotory Compacted Specimen Pre-Mixed, 3 briquettes (ASTM D6925, ASTM D5581)	\$ 225.00
70392	Potential Reactivity of Aggregate Combination, 28-Day Exposure, Mortar (ASTM C1567)	\$ 950.00	75107	Marshall Stability and Flow 6" Specimen, Premixed, 3 briquettes (ASTM D5581)	\$ 215.00
70345	R-Value: Soil (ASTM 2844, CTM 301)	\$ 375.00	75063	Moisture Content (CTM 370)	\$ 85.00
70347	R-Value: Aggregate Base (ASTM D2844, CTM 301)	\$ 410.00	75005	Wet Track Abrasion Test (ASTM D3910)	\$ 150.00
70349	Sand Equivalent (ASTM D2419, CTM 217)	\$ 125.00	75093	Hveem Mix Design (Excluding Aggregate Quality Tests)	\$ 3,000.00
70351	Sieve #200 Wash Only (ASTM D1140, CTM 202)	\$ 100.00	75096	Hveem Mix Design, with RAP (Excluding Aggregate Quality Tests, RAP Qualification)	\$ 3,300.00
70353	Sieve with Hydrometer: 3/4" Gravel to Clay (ASTM D422, CTM 203)	\$ 250.00	75099	Hveem Mix Design, with Lime (Excluding Aggregate Quality Tests)	\$ 3,550.00
70355	Sieve with Hydrometer: Sand to Clay (ASTM D422, CTM 203)	\$ 240.00	75094	Hveem Mix Design Caltrans Untreated Mix (Including Aggregate Quality Tests)	\$ 4,200.00
70357	Sieve Analysis Including Wash (ASTM C136, CTM 202)	\$ 150.00	75095	Hveem Mix Design Caltrans Lime Treated Mix (Including Aggregate Quality Tests)	\$ 4,300.00
70359	Sieve Analysis Without Wash (ASTM C136, CTM 202)	\$ 120.00	75084	Marshall Mix Design (Excluding Aggregate Quality Tests)	\$ 3,000.00
70360	Sieve Analysis: Split Sieve (ASTM C136, CTM 202)	\$ 240.00	75087	Marshall Mix Design with RAP (Excluding Aggregate Quality Tests)	\$ 3,300.00
70361	Sieve Analysis Without Wash: With Cobbles (ASTM C136, CTM 202)	\$ 235.00	750100	Marshall Mix Design with Lime (Excluding Aggregate Quality Tests)	\$ 3,550.00
70363	Sourness: Sodium or Magnesium Sulfate, 5 Cycles (ASTM C88)	\$ 450.00	75083	Open Grade Asphalt Concrete Mix Design (CTM 368, ASTM D7064)	\$ 1,350.00
70365	Specific Gravity and Absorption: Coarse (ASTM C127, CTM 206)	\$ 100.00	75109	Superpave Mix Design (Excluding Aggregate Quality Tests)	\$ 4,770.00
70367	Specific Gravity and Absorption: Fine (ASTM C128, CTM 207)	\$ 165.00	75113	Superpave Mix Design, with RAP (Excluding Aggregate Quality Tests)	\$60,100.00
70369	Swell/Settlement Potential: One Dimensional (ASTM D4546)	\$ 105.00	75114	Superpave Mix Design, with Rubber (Excluding Aggregate Quality Tests)	\$ 6,200.00
70371	Triaxial	Quotation			
70373	Unconfined Compression (ASTM D2166, CTM 221)	\$ 135.00			
Task Code	Asphalt Concrete Tests, continued	Rate	Task Code	Concrete Roof Fill: Gypsum, Vermiculite, Perlite, Lightweight Insulating Concrete, Etc.	Rate



75115	Superpave Mix Design, with Additives (Excluding Aggregate Quality Tests)	\$ 55,100.00	20371	Compression Test (ASTM C495 and C472)	\$ 40.00
75075	Effect of Moisture on Asphalt Paving Mixtures, Pre-Mixed (AASHTO T283, ASTM D4867)	\$ 1,000.00	20373	Air Dry Density (ASTM C472)	\$ 30.00
75111	Hamburg Wheel Track Test, 20,000 passes, 4 briquettes (AASHTO T324)	\$ 1,000.00	20379	Oven Dry Density (ASTM C495)	\$ 55.00
75116	Hamburg Wheel Track Test, 25,000 passes, 4 briquettes (AASHTO T324)	\$ 1,200.00			
75039	Raveling Test of Cold Mixed Emulsified Asphalt (ASTM D7196)	\$ 200.00			
75067	Marshall Stability, wet set, 3 replicates (AASHTO T 245)	\$ 325.00			
75068	Marshall Stability, dry set, 3 replicates (AASHTO T 245)	\$ 275.00			
75070	Cold Recycled Asphalt Mix Design: 2 gradings each, 3 emulsion content (Caltrans LP-8)	\$ 9,500.00			
<b>Task</b>					
<b>Code</b>	<b>Brick Masonry Tests, ASTM C67</b>	<b>Rate</b>	<b>Code</b>	<b>Reinforcing Steel, ASTM A615, A706</b>	<b>Rate</b>
20301	Modulus of Rupture: Flexural (5 Required Per ASTM)	\$ 45.00	20501	Tensile Test: # 11 or Smaller	\$ 55.00
20303	Compression Strength (3 Required Per ASTM)	\$ 45.00	20503	Bend Test: # 11 or Smaller	\$ 60.00
20305	Absorption: 5 Hour or 24 Hour (5 Required)	\$ 50.00	20504	Bend Test #14 or #18	\$ 300.00
20307	Absorption (Boil): 1, 2 or 5 Hours (5 Required)	\$ 60.00	20505	Tensile Test: # 14	\$ 200.00
20309	Initial Rate of Absorption (5 Required)	\$ 40.00	20507	Tensile Test: # 18	\$ 300.00
20311	Efflorescence (5 Required)	\$ 60.00			
20313	Cores: Compression	\$ 55.00			
20315	Shear Test on Brick Cores: 2 Faces	\$ 80.00			
<b>Task</b>			<b>Task</b>		
<b>Code</b>	<b>Concrete Block, ASTM C140</b>	<b>Rate</b>	<b>Code</b>	<b>Reinforcing Steel - Welded or Coupled Specimens</b>	<b>Rate</b>
20321	Compression (3 Required Per ASTM)	\$ 80.00	20521	Tensile Test: Welded/Coupled #11 and Smaller	\$ 65.00
20323	Absorption/Moisture Content/Oven Dry Density (3 Required Per ASTM)	\$ 80.00	20523	Tensile Test: Welded/Coupled #14	\$ 225.00
20327	Linear Shrinkage (ASTM C426)	\$ 200.00	20525	Tensile Test: Welded/Coupled #18	\$ 325.00
20335	Web and Face Shell Measurements	\$ 40.00	20529	Weld: Macroetch	\$ 70.00
20329	Tension Test	\$ 150.00	20531	Slippage Test - Caltrans (CTM 670)	\$ 180.00
20331	Core Compression	\$ 55.00	20532	Tensile Test: Welded Hoops #11 and Smaller	\$ 125.00
20333	Shear Test of Masonry Cores: 2 Faces	\$ 75.00			
20339	Efflorescence Tests (3 Required)	\$ 40.00			
<b>Task</b>			<b>Task</b>		
<b>Code</b>	<b>Masonry Prisms, ASTM C1314</b>	<b>Rate</b>	<b>Code</b>	<b>Metal and Steel Testing</b>	<b>Rate</b>
20341	Compression Test: Composite Masonry Prisms Up To 8" x 16"	\$ 185.00	20601	Tensile Strength: Up to 100K Pounds (Each)	\$ 55.00
20343	Compression Test: Composite Masonry Prisms Larger Than 8" x 16"	\$ 245.00	20603	Tensile Strength: Up to 200K Pounds (Each)	\$ 65.00
20346	Prism Cord Modulus of Elasticity	\$ 525.00	20605	Tensile Strength: Up to 300K Pounds (Each)	\$ 75.00
20347	Prism Cord Modulus of Elasticity with Transverse	\$ 630.00	20607	Tensile Strength: Up to 400K Pounds (Each)	\$ 125.00
<b>Task</b>			20608	Tensile Strength: 400K to 600K Pounds (Each)	\$ 300.00
<b>Code</b>	<b>Mortar and Grout</b>	<b>Rate</b>	20611	Tensile Strength: Stress-Strain Percent Offset	\$ 150.00
20351	Compression: 2" x 4" Mortar Cylinders (ASTM C780)	\$ 55.00	20545	Weld: Macroetch	\$ 70.00
20353	Compression: 3" x 3" x 6" Grout Prisms, Includes Trimming (ASTM C119)	\$ 32.00	20547	Weld: Fracture	\$ 30.00
20355	Compression: 2" Cubes (ASTM C109)	\$ 55.00	20615	Bend Test	\$ 46.00
20357	Compression: Cores (ASTM C42)	\$ 55.00	20617	Flattening Test	\$ 55.00
<b>Task</b>			20619	Brinell and Rockwell Hardness Test (ASTM E18) (Per Test)	\$ 75.00
<b>Code</b>	<b>Masonry Specimen Preparation</b>	<b>Rate</b>	20630	Bolt: Axial Tensile Test (Up to 7/8" diameter)	\$ 40.00
20155	Cutting of Cubes or Prisms	\$ 50.00	20631	Bolt: Wedge Tensile Test (Up to 7/8" diameter)	\$ 55.00
<b>Task</b>			20632	Bolt: Axial Tensile Test (Greater than 7/8"	\$ 60.00
<b>Code</b>	<b>Fireproofing Tests</b>	<b>Rate</b>	20633	Bolt: Wedge Tensile Test (Greater than 7/8" up to 1" diameter)	\$ 75.00
20401	Oven Dry Density (Per Sample) (ASTM E605)	\$ 65.00	20634	Bolt: Axial Tensile Test (Greater than 1" diameter)	Quotation
<b>Task</b>			20635	Bolt: Wedge Tensile Test (Greater than 1" diameter)	Quotation
<b>Code</b>	<b>Gunite and Shotcrete Tests</b>	<b>Rate</b>	20636	Bolt: Proof Load Test (Up to 7/8")	\$ 65.00
20361	Core Compression Including Trimming (ASTM C42)	\$ 55.00	20637	Bolt: Proof Load Test (Greater than 7/8" up to 1" diameter)	\$ 85.00
20363	Compression: 6" x 12" Cylinders	\$ 32.00	20638	Bolt: Proof Load Test (Greater than 1")	Quotation
20365	Compression: Cubes (Includes Saw Cutting)	\$ 74.00	20639	Nut: Proof Load Test (Up to 7/8")	\$ 45.00
			20640	Nut: Proof Load Test (Greater than 7/8" up to 1" diameter)	\$ 65.00
			20641	Nut: Proof Load Test (Greater than 1")	Quotation
			<b>Task</b>		
			<b>Code</b>	<b>Chemical Testing of Metal and Steel</b>	<b>Rate</b>
			80170	Steel Chemical Analysis	\$ 135.00
			80173	Weight of Galvanized Coating (ASTM A100)	\$ 75.00



Task Code	Task Description	Rate	Task Code	Task Description	Rate
<b>Machining and Preparation of Tensile and Bend Sample: Carbon Steel</b>					
20751	Machinist: Initial Preparation from Mock-up, Etc. (Per Hour)	\$ 100.00	20706	Tensile Strength – Set of 5 Specimens/batch/ direction (ASTM D3039)	\$ 1,350.00
20753	Sawcut to Overall Width (Per 0.5" Thickness or Fraction Thereof)	\$ 45.00	20707	Tensile Strength – Additional Specimens (ASTM D3039)	\$ 250.00
20755	Machine to Test Configuration: Milled Specimens (Per 0.5" Thickness or Fraction Thereof)	\$ 60.00	20708	Heating Chamber Time – Per 24 hr period (ASTM D3039)	\$ 85.00
20757	Machine to Test Configuration: Turned Specimens (Per 0.5" Thickness or Fraction Thereof)	\$ 120.00			
20759	Prepare Subsize Specimens (Per 0.5" Thickness or Fraction Thereof)	\$ 75.00			
<b>Task Code Calibration Services and Universal Machine Usage</b>					
20621	Charpy Impact Ambient Temperature, per sample (Average of 3 Samples Typically Required)	\$ 85.00	20801	Calibration/Verification Services	Quotation
20623	Charpy Impact Reduced Temperature, per sample (Average of 3 Samples Typically Required)	\$ 105.00	20803	Universal Test Machine Usage (Per Hour)	\$ 275.00
<b>Task Code Machining of Charpy Samples: Carbon Steel</b>					
20780	Cutting and Milling (Per 0.5" or Fraction Thereafter) (Average of 3 Samples Typically Required)	\$ 75.00			
20783	Final Machining to Sample Configuration (Average of 3 Samples Typically Required)	\$ 85.00			
<b>Task Code Prestressing Wires and Tendons, ASTM</b>					
20701	Stress-Strain Analysis: Wire or Strands (Including Chart and Percent Offset)	\$ 170.00			
20703	Tensile Test Only	\$ 125.00			
20705	Tendons	Quotation			

**Ceramic Tile Testing Division**

The Ceramic Tile Institute of America (CTIOA) and Twining worked together to advance and develop technology designed to enhance the quality of materials and workmanship in the ceramic tile industry. A separate schedule of fees for these services is available upon request.

Cyclic and Fatigue Testing Programs on Special Products/Parts	Quotation
Engineering and Technical supports/Design of Prototypes and Special Test Set-Up	Quotation
Fastener/Coupling Full Testing Program Per New Regulations: Tension, Fiberglass/Composite Materials Field Testing Program (ASTM D4065, D1143, D4923, D2584, D4476, D1242, D71001, D7921, and D732)	Quotation
Field Testing of Structures and Structural Elements	Quotation
In-Place Shear Testing	Quotation
Materials and/or Product Evaluation Per Specifications	Quotation
Structural Dynamic Testing and Durability Analysis	Quotation

**General Conditions**

NOTE: Field inspection work conditions are established by contract with Operating Engineers, Local 12.

NOTE: A minimum of 24 hours notice is required for testing and inspection services.

NOTE: For projects subject to a Project Labor Agreement (PLA), if terms/conditions of the PLA are more restrictive those terms/conditions will apply.

**Administrative Fees**

All administrative costs including report distribution and Twining Construction/Inve system are billed at the following percentage of the monthly invoice total: 4%  
 Note that hard copies of reports will be sent only to governing jurisdictions that mandate them. All other parties will receive reports electronically. The administrative fee above will be increased by 1% if additional hard copies of reports are requested.

**Minimum Charges (Inspection and Technician Personnel Only - Other Personnel Charged on Portal to Portal Basis)**

- 2-Hour Minimum: Inspector arrives at jobsite, no work to perform.
- 4-Hour Minimum: 1 to 4 hours of inspection
- 8-Hour Minimum: Over 4 to 8 hours of inspection

**Regular Time**

The first 8 hours worked Monday through Friday between 5:00 a.m. and 5:00 p.m.

**Time and One-Half (All Types of Inspection)**

All shifts will be billed based on the time and date of their start. Any increment past 8 hours through 12 hours worked Monday through Friday and the first 12 hours on Saturday. Time and one-half will also be charged for any time before 5:00 a.m. and after 5:00 p.m.

**Double Time (All Types of Inspection)**

All shifts will be billed based on the time and date of their start. After the first 12 hours worked Monday through Saturday, all day Sunday, holidays, and the first Saturday following the first Friday in June and December. Holidays are New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the day after Thanksgiving, and Christmas Day.

**Meal Period**

When personnel are required by their duties to work more than five consecutive hours without a one-half hour uninterrupted meal period, one half hour at double time rate will be charged in addition to any applicable overtime for actual hours worked.

**Shift Differential (Applies to Regularly Scheduled Shifts Only)**

A \$1.00 per hour shift differential premium will be charged for all inspection hours that fall outside of the 5:00 a.m. to 5:00 p.m. time period. Twining will require 48-hour notice prior to beginning a shift that will include hours falling outside this time period. Should this notice not be provided, all work performed on that shift will be billed at the overtime rate.

If three shifts per day are required, the first shift will be billed at the standard rate. The second shift shall be billed in accordance with the previous paragraph. The third shift shall be billed at 8 hours for the first 6 1/2 hours worked and overtime for all hours thereafter.



## General Conditions continued

### Travel Time and Mileage

For projects outside a 50-mile radius from the nearest Twining facility, \$ 0.70 per excess mile to and from the project will be charged for inspectors and technicians. Other than small tools, whenever project related equipment is required to be transported to and from the project site, time and mileage for inspectors and field technicians will be billed on a portal to portal basis. For all projects, our per mile rate and applicable travel time will be charged portal to portal for engineers, consultants, supervisors, and laboratory technicians from the laboratory to the project site and return.

For work locations located 100 miles or more from Twining, travel time will be charged at the relevant rate for inspectors and technicians in addition to a subsistence allowance.

### Saturday Sample Pick-Ups

In order to be in strict conformance with testing standards, it may be required that Saturday pick-ups be performed (e.g. concrete specimens cast on Friday must be picked up on Saturday in order to be in conformance with ASTM C31 requiring specimens to be moved to their final curing location within 48 hours of casting.) Applicable charges for Saturday work will apply when this is required. Should these charges not be authorized then Twining will not be responsible for any negative consequences.

### Reimbursable Expenses

Parking, air fare, car rental, food and lodging, etc. will be charged at cost plus 20% per processed invoice, unless provided by client.

### Project Specific Documents

Costs presented assume that client will provide project specific documents (plans, specifications, submittals, RFIs, etc.) for all inspection personnel. Should project specific documents be provided electronically through a for fee service, the client will be responsible for providing access and paying any fees for the service.

### Project Site Facilities

Prices quoted assume that initial curing facilities for test samples that comply with relevant test standards and project requirements and desk space for inspection staff are provided by others. Additional costs will apply should Twining be required to provide such facilities.

### Subsistence

Subsistence on remote jobs will be charged per quotation.

### Laboratory Testing Hours

Please note that laboratory testing will be billed on an hourly basis for non-standard tests. If testing is required to be performed on Saturdays, Sundays, holidays, or before 5:30 a.m. or after 4:00 p.m. on weekdays, an additional hourly charge with a minimum of one hour will be applied for the laboratory technician. 1.5 x regular test rate will be charged for rush testing.

### Charges for Subcontracted Services

Material sent to outside laboratory for testing:	Cost plus 20%
Material sent to outside fabricator or machine shop:	Cost plus 20%
Glu-Lam beam inspection:	Cost plus 20%
Other subcontractors:	Cost plus 20%
Project exclusive equipment purchase:	Cost plus 20%

### Limit of Liability

Client agrees to limit Twining's aggregate liability to all entities for alleged or actual errors and omissions in the performance of its professional services under this agreement to \$50,000.00 or the fees actually paid to Twining, whichever amount is greater. Higher limits may be available by quotation.

### Certified Payroll

Certified payroll will be provided, upon request, at an additional charge of \$100.00/month. Fee applies to every month that certified payroll must be submitted regardless of whether or not services were provided for any given month.

### Final Reports Required by Jurisdiction

If a final report or affidavit is required, we must first review all inspection and testing reports and clear up any unresolved issues on these reports. These issues will typically require approval by the engineer or architect of record. This process can take several weeks or just a day, depending on the number and complexity of the issues. Cost for final reports will be billed hourly.

### Terms of Payment

Fees charged are for professional and technical services and are due upon presentation. If not paid within 30 days from date of invoice, they are considered past due and a finance charge of 1½% per month will be added to the unpaid balance (APR 18%).

All invoice errors or necessary corrections shall be brought to the attention of Twining within 15 days of receipt of invoice. Thereafter, customer acknowledges invoices are correct and valid. Twining reserves the right to terminate its services to a customer without notice if all invoices are not current. Upon such termination of services, the entire amount accrued for all services performed shall immediately become due and payable. Customer waives any and all claims against Twining, its subsidiaries, affiliates, servants and agents for termination of work on account of these terms.

In the event of any litigation arising from or related to any agreement to provide services whether verbal or written, the prevailing party shall be entitled to recover from the non-prevailing party all reasonable costs incurred, including staff time, court costs, attorney's fees and all other related expenses in such litigation. Additionally, in the event of a non-adjudicative settlement of litigation between the parties or a resolution of dispute by arbitration, that same process shall determine the prevailing party.

### Specimen Disposal

Specimens will be discarded after testing unless Twining has been notified prior to testing that the customer wishes to retrieve the specimens or storage arrangements are made.

### Oversize Specimens

An extra charge will be made when test specimens require more than one person to handle because of size or weight.

### Elevated Work Platforms

In the event an elevated work platform is required to safely complete our inspections, the client must provide safe access, including a trained and certified operator, to Twining, Inc. inspection and testing personnel.

Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Office)</b>		<b>114.22%</b>		
Senior Project Executive	\$155.10	\$177.15	\$16.75	\$349.00
Principal-in-Charge	\$142.16	\$162.38	\$15.46	\$320.00
Project Executive	\$136.06	\$155.41	\$14.54	\$306.00
Contract Manager	\$132.21	\$151.01	\$13.78	\$297.00
Project Principal	\$113.37	\$129.49	\$24.15	\$267.00
SMS/Safety Manager VI	\$109.42	\$124.98	\$23.59	\$258.00
SMS/Safety Manager V	\$95.94	\$109.58	\$20.48	\$226.00
SMS/Safety Manager IV	\$84.88	\$96.95	\$18.17	\$200.00
SMS/Safety Manager III	\$74.57	\$85.17	\$16.26	\$176.00
Project Manager VI	\$119.38	\$136.35	\$25.27	\$281.00
Project Manager V	\$109.42	\$124.98	\$23.59	\$258.00
Project Manager IV	\$99.47	\$113.62	\$20.91	\$234.00
Project Manager III	\$87.21	\$99.61	\$19.18	\$206.00
Project Manager II	\$77.16	\$88.14	\$16.70	\$182.00
Project Manager I	\$67.79	\$77.43	\$14.78	\$160.00
Quality Manager VI	\$119.38	\$136.35	\$25.27	\$281.00
Quality Manager V	\$109.42	\$124.98	\$23.59	\$258.00
Quality Manager IV	\$95.94	\$109.58	\$20.48	\$226.00
Design Manager VI	\$109.42	\$124.98	\$23.59	\$258.00
Design Manager V	\$99.47	\$113.62	\$20.91	\$234.00
Design Manager IV	\$87.21	\$99.61	\$19.18	\$206.00
Airfield Engineer VI	\$104.66	\$119.55	\$22.79	\$247.00
Airfield Engineer V	\$90.41	\$103.26	\$19.33	\$213.00
Airfield Engineer IV	\$79.72	\$91.06	\$17.22	\$188.00
Airfield Engineer III	\$70.02	\$79.98	\$14.99	\$165.00
Airfield Engineer II	\$61.51	\$70.26	\$13.22	\$145.00
Airfield Engineer I	\$54.00	\$61.68	\$11.32	\$127.00
Airfield Designer VI	\$81.35	\$92.91	\$17.74	\$192.00
Airfield Designer V	\$70.02	\$79.98	\$14.99	\$165.00
Airfield Designer IV	\$61.51	\$70.26	\$13.22	\$145.00
Airfield Designer III	\$54.00	\$61.68	\$11.32	\$127.00
Airfield Designer II	\$47.36	\$54.09	\$10.55	\$112.00
Airfield Designer I	\$41.59	\$47.50	\$8.91	\$98.00
Airfield Planner VI	\$104.66	\$119.55	\$22.79	\$247.00
Airfield Planner V	\$90.41	\$103.26	\$19.33	\$213.00
Airfield Planner IV	\$79.72	\$91.06	\$17.22	\$188.00
Airfield Planner III	\$70.02	\$79.98	\$14.99	\$165.00
Airfield Planner II	\$61.51	\$70.26	\$13.22	\$145.00
Airfield Planner I	\$54.00	\$61.68	\$11.32	\$127.00
Landscape Architect VI	\$92.60	\$105.76	\$19.64	\$218.00
Landscape Architect V	\$79.72	\$91.06	\$17.22	\$188.00
Landscape Architect IV	\$70.02	\$79.98	\$14.99	\$165.00
Landscape Architect III	\$61.51	\$70.26	\$13.22	\$145.00
Landscape Architect II	\$54.00	\$61.68	\$11.32	\$127.00
Landscape Architect I	\$47.36	\$54.09	\$10.55	\$112.00



Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Office)</b>		<b>114.22%</b>		
Architect VI	\$104.66	\$119.55	\$22.79	\$247.00
Architect V	\$90.41	\$103.26	\$19.33	\$213.00
Architect IV	\$79.72	\$91.06	\$17.22	\$188.00
Architect III	\$70.02	\$79.98	\$14.99	\$165.00
Architect II	\$61.51	\$70.26	\$13.22	\$145.00
Architect I	\$54.00	\$61.68	\$11.32	\$127.00
Structural Engineer VI	\$104.66	\$119.55	\$22.79	\$247.00
Structural Engineer V	\$90.41	\$103.26	\$19.33	\$213.00
Structural Engineer IV	\$79.72	\$91.06	\$17.22	\$188.00
Structural Engineer III	\$70.02	\$79.98	\$14.99	\$165.00
Structural Engineer II	\$61.51	\$70.26	\$13.22	\$145.00
Structural Engineer I	\$54.00	\$61.68	\$11.32	\$127.00
BHS Consultant	\$65.70	\$75.04	\$14.26	\$155.00
Electrical Engineer VI	\$104.66	\$119.55	\$22.79	\$247.00
Electrical Engineer V	\$90.41	\$103.26	\$19.33	\$213.00
Electrical Engineer IV	\$79.72	\$91.06	\$17.22	\$188.00
Electrical Engineer III	\$70.02	\$79.98	\$14.99	\$165.00
Electrical Engineer II	\$61.51	\$70.26	\$13.22	\$145.00
Electrical Engineer I	\$54.00	\$61.68	\$11.32	\$127.00
Mechanical Engineer VI	\$104.66	\$119.55	\$22.79	\$247.00
Mechanical Engineer V	\$90.41	\$103.26	\$19.33	\$213.00
Mechanical Engineer IV	\$79.72	\$91.06	\$17.22	\$188.00
Mechanical Engineer III	\$70.02	\$79.98	\$14.99	\$165.00
Mechanical Engineer II	\$61.51	\$70.26	\$13.22	\$145.00
Mechanical Engineer I	\$54.00	\$61.68	\$11.32	\$127.00
Construction Manager VI	\$109.42	\$124.98	\$23.59	\$258.00
Construction Manager V	\$99.47	\$113.62	\$20.91	\$234.00
Construction Manager IV	\$87.21	\$99.61	\$19.18	\$206.00
Construction Manager III	\$77.16	\$88.14	\$16.70	\$182.00
Construction Manager II	\$67.79	\$77.43	\$14.78	\$160.00
Construction Manager I	\$61.01	\$69.69	\$13.31	\$144.00
Deputy Construction Manager	\$74.57	\$85.17	\$16.26	\$176.00
Resident Engineer VI	\$92.60	\$105.76	\$19.64	\$218.00
Resident Engineer V	\$79.72	\$91.06	\$17.22	\$188.00
Resident Engineer IV	\$70.02	\$79.98	\$14.99	\$165.00
Resident Engineer III	\$61.51	\$70.26	\$13.22	\$145.00
Resident Engineer II	\$54.00	\$61.68	\$11.32	\$127.00
Resident Engineer I	\$47.36	\$54.09	\$10.55	\$112.00
Airfield Inspector VI	\$92.60	\$105.76	\$19.64	\$218.00
Airfield Inspector V	\$79.72	\$91.06	\$17.22	\$188.00
Airfield Inspector IV	\$70.02	\$79.98	\$14.99	\$165.00
Airfield Inspector III	\$61.51	\$70.26	\$13.22	\$145.00
Airfield Inspector II	\$54.00	\$61.68	\$11.32	\$127.00
Airfield Inspector I	\$47.36	\$54.09	\$10.55	\$112.00

Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Office)</b>		<b>114.22%</b>		
COMSEC Engineer VI	\$104.66	\$119.55	\$22.79	\$247.00
COMSEC Engineer V	\$90.41	\$103.26	\$19.33	\$213.00
COMSEC Engineer IV	\$79.72	\$91.06	\$17.22	\$188.00
COMSEC Engineer III	\$70.02	\$79.98	\$14.99	\$165.00
COMSEC Engineer II	\$61.51	\$70.26	\$13.22	\$145.00
COMSEC Engineer I	\$54.00	\$61.68	\$11.32	\$127.00
COMSEC Programmer VI	\$104.66	\$119.55	\$22.79	\$247.00
COMSEC Programmer V	\$90.41	\$103.26	\$19.33	\$213.00
COMSEC Programmer IV	\$79.72	\$91.06	\$17.22	\$188.00
COMSEC Programmer III	\$70.02	\$79.98	\$14.99	\$165.00
COMSEC Programmer II	\$61.51	\$70.26	\$13.22	\$145.00
COMSEC Programmer I	\$54.00	\$61.68	\$11.32	\$127.00
COMSEC Technician VI	\$71.44	\$81.60	\$14.96	\$168.00
COMSEC Technician V	\$61.51	\$70.26	\$13.22	\$145.00
COMSEC Technician IV	\$54.00	\$61.68	\$11.32	\$127.00
COMSEC Technician III	\$47.36	\$54.09	\$10.55	\$112.00
COMSEC Technician III	\$41.59	\$47.50	\$8.91	\$98.00
COMSEC Technician I	\$36.49	\$41.68	\$7.83	\$86.00
CADD Technician VI	\$87.21	\$99.61	\$19.18	\$206.00
CADD Technician V	\$77.16	\$88.14	\$16.70	\$182.00
CADD Technician IV	\$67.79	\$77.43	\$14.78	\$160.00
CADD Technician III	\$59.52	\$67.98	\$12.50	\$140.00
CADD Technician II	\$52.31	\$59.75	\$10.95	\$123.00
CADD Technician I	\$45.87	\$52.39	\$9.75	\$108.00
Project Coordinator VI	\$92.60	\$105.76	\$19.64	\$218.00
Project Coordinator VI	\$79.72	\$91.06	\$17.22	\$188.00
Project Coordinator IV	\$70.02	\$79.98	\$14.99	\$165.00
Project Coordinator III	\$57.97	\$66.21	\$12.82	\$137.00
Project Coordinator II	\$47.36	\$54.09	\$10.55	\$112.00
Project Coordinator I	\$39.16	\$44.73	\$8.11	\$92.00
<b>Notes :</b>				
1. Above listed rates are effective January 1, 2019 through December 31, 2019.				
2. Above listed rates are based on the At-Office overhead rate for Buildings and Infrastructure Americas Design for the Fiscal Year Ended September 29, 2017.				
3. Buildings and Infrastructure Americas Design is a Business Unit of Jacobs Engineering Group Inc.				
4. Direct Labor Rate is maximum compensation for that Labor Category.				
5. Pay Grade - Level I: 0-7 years experience				
6. Pay Grade - Level II: 5-15 years experience				
7. Pay Grade - Level III: 10-20 years experience				
8. Pay Grade - Level IV: 15+ years experience				
9. Pay Grade - Level V: 20+ years experience				
10. Pay Grade - Level VI: 25+ years experience				
11. Other Direct Costs (ODC) will be billed at actual cost without markup				

Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Site)</b>		<b>92.35%</b>		
Senior Project Executive	\$155.10	\$143.23	\$14.67	\$313.00
Principal-in-Charge	\$142.16	\$131.29	\$13.55	\$287.00
Project Executive	\$136.06	\$125.65	\$13.29	\$275.00
Contract Manager	\$132.21	\$122.10	\$12.69	\$267.00
Project Principal	\$113.37	\$104.69	\$21.94	\$240.00
SMS/Safety Manager VI	\$109.42	\$101.05	\$21.52	\$232.00
SMS/Safety Manager V	\$95.94	\$88.60	\$18.46	\$203.00
SMS/Safety Manager IV	\$84.88	\$78.39	\$16.73	\$180.00
SMS/Safety Manager III	\$74.57	\$68.86	\$14.57	\$158.00
Project Manager VI	\$119.38	\$110.24	\$23.38	\$253.00
Project Manager V	\$109.42	\$101.05	\$21.52	\$232.00
Project Manager IV	\$99.47	\$91.86	\$18.67	\$210.00
Project Manager III	\$87.21	\$80.54	\$17.25	\$185.00
Project Manager II	\$77.16	\$71.26	\$14.58	\$163.00
Project Manager I	\$67.79	\$62.60	\$12.61	\$143.00
Quality Manager VI	\$119.38	\$110.24	\$23.38	\$253.00
Quality Manager V	\$109.42	\$101.05	\$21.52	\$232.00
Quality Manager IV	\$95.94	\$88.60	\$18.46	\$203.00
Design Manager VI	\$109.42	\$101.05	\$21.52	\$232.00
Design Manager V	\$99.47	\$91.86	\$18.67	\$210.00
Design Manager IV	\$87.21	\$80.54	\$17.25	\$185.00
Airfield Engineer VI	\$104.66	\$96.66	\$19.68	\$221.00
Airfield Engineer V	\$90.41	\$83.49	\$17.10	\$191.00
Airfield Engineer IV	\$79.72	\$73.62	\$15.65	\$169.00
Airfield Engineer III	\$70.02	\$64.67	\$13.31	\$148.00
Airfield Engineer II	\$61.51	\$56.81	\$11.68	\$130.00
Airfield Engineer I	\$54.00	\$49.87	\$10.13	\$114.00
Airfield Designer VI	\$81.35	\$75.12	\$15.53	\$172.00
Airfield Designer V	\$70.02	\$64.67	\$13.31	\$148.00
Airfield Designer IV	\$61.51	\$56.81	\$11.68	\$130.00
Airfield Designer III	\$54.00	\$49.87	\$10.13	\$114.00
Airfield Designer II	\$47.36	\$43.73	\$8.91	\$100.00
Airfield Designer I	\$41.59	\$38.41	\$8.01	\$88.00
Airfield Planner VI	\$104.66	\$96.66	\$19.68	\$221.00
Airfield Planner V	\$90.41	\$83.49	\$17.10	\$191.00
Airfield Planner IV	\$79.72	\$73.62	\$15.65	\$169.00
Airfield Planner III	\$70.02	\$64.67	\$13.31	\$148.00
Airfield Planner II	\$61.51	\$56.81	\$11.68	\$130.00
Airfield Planner I	\$54.00	\$49.87	\$10.13	\$114.00
Landscape Architect VI	\$92.60	\$85.51	\$17.89	\$196.00
Landscape Architect V	\$79.72	\$73.62	\$15.65	\$169.00
Landscape Architect IV	\$70.02	\$64.67	\$13.31	\$148.00
Landscape Architect III	\$61.51	\$56.81	\$11.68	\$130.00
Landscape Architect II	\$54.00	\$49.87	\$10.13	\$114.00
Landscape Architect I	\$47.36	\$43.73	\$8.91	\$100.00

Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Site)</b>		<b>92.35%</b>		
Architect VI	\$104.66	\$96.66	\$19.68	\$221.00
Architect V	\$90.41	\$83.49	\$17.10	\$191.00
Architect IV	\$79.72	\$73.62	\$15.65	\$169.00
Architect III	\$70.02	\$64.67	\$13.31	\$148.00
Architect II	\$61.51	\$56.81	\$11.68	\$130.00
Architect I	\$54.00	\$49.87	\$10.13	\$114.00
Structural Engineer VI	\$104.66	\$96.66	\$19.68	\$221.00
Structural Engineer V	\$90.41	\$83.49	\$17.10	\$191.00
Structural Engineer IV	\$79.72	\$73.62	\$15.65	\$169.00
Structural Engineer III	\$70.02	\$64.67	\$13.31	\$148.00
Structural Engineer II	\$61.51	\$56.81	\$11.68	\$130.00
Structural Engineer I	\$54.00	\$49.87	\$10.13	\$114.00
BHS Consultant	\$65.70	\$60.67	\$12.63	\$139.00
Electrical Engineer VI	\$104.66	\$96.66	\$19.68	\$221.00
Electrical Engineer V	\$90.41	\$83.49	\$17.10	\$191.00
Electrical Engineer IV	\$79.72	\$73.62	\$15.65	\$169.00
Electrical Engineer III	\$70.02	\$64.67	\$13.31	\$148.00
Electrical Engineer II	\$61.51	\$56.81	\$11.68	\$130.00
Electrical Engineer I	\$54.00	\$49.87	\$10.13	\$114.00
Mechanical Engineer VI	\$104.66	\$96.66	\$19.68	\$221.00
Mechanical Engineer V	\$90.41	\$83.49	\$17.10	\$191.00
Mechanical Engineer IV	\$79.72	\$73.62	\$15.65	\$169.00
Mechanical Engineer III	\$70.02	\$64.67	\$13.31	\$148.00
Mechanical Engineer II	\$61.51	\$56.81	\$11.68	\$130.00
Mechanical Engineer I	\$54.00	\$49.87	\$10.13	\$114.00
Construction Manager VI	\$109.42	\$101.05	\$21.52	\$232.00
Construction Manager V	\$99.47	\$91.86	\$18.67	\$210.00
Construction Manager IV	\$87.21	\$80.54	\$17.25	\$185.00
Construction Manager III	\$77.16	\$71.26	\$14.58	\$163.00
Construction Manager II	\$67.79	\$62.60	\$12.61	\$143.00
Construction Manager I	\$61.01	\$56.34	\$11.65	\$129.00
Deputy Construction Manager	\$74.57	\$68.86	\$14.57	\$158.00
Resident Engineer VI	\$92.60	\$85.51	\$17.89	\$196.00
Resident Engineer V	\$79.72	\$73.62	\$15.65	\$169.00
Resident Engineer IV	\$70.02	\$64.67	\$13.31	\$148.00
Resident Engineer III	\$61.51	\$56.81	\$11.68	\$130.00
Resident Engineer II	\$54.00	\$49.87	\$10.13	\$114.00
Resident Engineer I	\$47.36	\$43.73	\$8.91	\$100.00
Airfield Inspector VI	\$92.60	\$85.51	\$17.89	\$196.00
Airfield Inspector V	\$79.72	\$73.62	\$15.65	\$169.00
Airfield Inspector IV	\$70.02	\$64.67	\$13.31	\$148.00
Airfield Inspector III	\$61.51	\$56.81	\$11.68	\$130.00
Airfield Inspector II	\$54.00	\$49.87	\$10.13	\$114.00
Airfield Inspector I	\$47.36	\$43.73	\$8.91	\$100.00

Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Site)</b>		<b>92.35%</b>		
COMSEC Engineer VI	\$104.66	\$96.66	\$19.68	\$221.00
COMSEC Engineer V	\$90.41	\$83.49	\$17.10	\$191.00
COMSEC Engineer IV	\$79.72	\$73.62	\$15.65	\$169.00
COMSEC Engineer III	\$70.02	\$64.67	\$13.31	\$148.00
COMSEC Engineer II	\$61.51	\$56.81	\$11.68	\$130.00
COMSEC Engineer I	\$54.00	\$49.87	\$10.13	\$114.00
COMSEC Programmer VI	\$104.66	\$96.66	\$19.68	\$221.00
COMSEC Programmer V	\$90.41	\$83.49	\$17.10	\$191.00
COMSEC Programmer IV	\$79.72	\$73.62	\$15.65	\$169.00
COMSEC Programmer III	\$70.02	\$64.67	\$13.31	\$148.00
COMSEC Programmer II	\$61.51	\$56.81	\$11.68	\$130.00
COMSEC Programmer I	\$54.00	\$49.87	\$10.13	\$114.00
COMSEC Technician VI	\$71.44	\$65.98	\$13.58	\$151.00
COMSEC Technician V	\$61.51	\$56.81	\$11.68	\$130.00
COMSEC Technician IV	\$54.00	\$49.87	\$10.13	\$114.00
COMSEC Technician III	\$47.36	\$43.73	\$8.91	\$100.00
COMSEC Technician III	\$41.59	\$38.41	\$8.01	\$88.00
COMSEC Technician I	\$36.49	\$33.70	\$6.81	\$77.00
CADD Technician VI	\$87.21	\$80.54	\$17.25	\$185.00
CADD Technician V	\$77.16	\$71.26	\$14.58	\$163.00
CADD Technician IV	\$67.79	\$62.60	\$12.61	\$143.00
CADD Technician III	\$59.52	\$54.97	\$11.51	\$126.00
CADD Technician II	\$52.31	\$48.31	\$10.39	\$111.00
CADD Technician I	\$45.87	\$42.36	\$8.78	\$97.00
Project Coordinator VI	\$92.60	\$85.51	\$17.89	\$196.00
Project Coordinator VI	\$79.72	\$73.62	\$15.65	\$169.00
Project Coordinator IV	\$70.02	\$64.67	\$13.31	\$148.00
Project Coordinator III	\$57.97	\$53.53	\$11.50	\$123.00
Project Coordinator II	\$47.36	\$43.73	\$8.91	\$100.00
Project Coordinator I	\$39.16	\$36.16	\$7.68	\$83.00
<b>Notes :</b>				
1. Above listed rates are effective January 1, 2019 through December 31, 2019.				
2. Above listed rates are based on the At-Office overhead rate for Buildings and Infrastructure Americas Design for the Fiscal Year Ended September 29, 2017.				
3. Buildings and Infrastructure Americas Design is a Business Unit of Jacobs Engineering Group Inc.				
4. Direct Labor Rate is maximum compensation for that Labor Category.				
5. Pay Grade - Level I: 0-7 years experience				
6. Pay Grade - Level II: 5-15 years experience				
7. Pay Grade - Level III: 10-20 years experience				
8. Pay Grade - Level IV: 15+ years experience				
9. Pay Grade - Level V: 20+ years experience				
10. Pay Grade - Level VI: 25+ years experience				
11. Other Direct Costs (ODC) will be billed at actual cost without markup				

Title/Category		Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>LEXAX</b>			<b>126.28%</b>		
LEXAX Construction Services, Inc.	Patricia Benny	\$40.00	\$50.51	\$9.05	\$99.56
<b>B. Additional Services</b>					
Any additional services required in addition to Section A & B will be treated as additional services and the following hourly rates will apply:					
<b>LEXAX - Additional Services</b>			<b>Office Rate</b>		<b>Home Rate</b>
Sr. Document Control			\$110.50		\$113.53
Document Control			\$85.94		\$88.30
Lead Estimator					\$227.07
Sr. Estimator					\$171.56
Sr. Estimator (MEP)					\$176.61

LENAX (T & M) Fee Breakdown based on 40 hours per week for 10 months for Document Control Support Services from field office.  
Information retrieved from proposal dated July 1, 2019.

Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>ESA Associates</b>		<b>193.82%</b>		
Senior Director III	\$78.13	\$151.42	\$70.45	\$300.00
Senior Director II	\$72.92	\$141.33	\$65.76	\$280.00
Senior Director I	\$69.01	\$133.76	\$62.23	\$265.00
Director III	\$62.50	\$121.14	\$56.36	\$240.00
Director II	\$58.59	\$113.57	\$52.84	\$225.00
Director I	\$54.69	\$106.00	\$49.32	\$210.00
Managing Associate III	\$53.39	\$103.47	\$48.14	\$205.00
Managing Associate II	\$49.48	\$95.90	\$44.62	\$190.00
Managing Associate I	\$45.57	\$88.33	\$41.10	\$175.00
Senior Associate III	\$44.27	\$85.81	\$39.92	\$170.00
Senior Associate II	\$41.67	\$80.76	\$37.58	\$160.00
Senior Associate I	\$39.06	\$75.71	\$35.23	\$150.00
Associate III	\$35.16	\$68.14	\$31.70	\$135.00
Associate II	\$32.55	\$63.09	\$29.36	\$125.00
Associate I	\$27.34	\$53.00	\$24.66	\$105.00
Project Technician I	\$31.25	\$60.57	\$28.18	\$120.00
Project Technician I	\$26.04	\$50.47	\$23.48	\$100.00
Project Technician I	\$22.14	\$42.90	\$19.96	\$85.00
<b>Notes :</b>				
1. Above listed rates have been provided by ESA Associates.				
2. Above listed rates are effective June 1, 2019 through December 31, 2019.				
3. ESA is using our standard billing rates and with the staffing for this effort the average multiplier for the Project is 3.84.				
4. Other Direct Costs (ODC) will be billed for computer and all accessories.				

# Standard Hourly Rate Sheet

**ARB** TEMECULA, CA  
949.380.9743  
WWW.ARBELECTRIC.COM  
**Electrical Inc.**

Description	Financial Statement Amount	ARB Adj.	Ref.	Accepted Amount	%
<b>Direct Labor Rate</b>					
Civil Engineer	\$ 105				
Electrical Engineer	\$ 105				
Drafting	\$ 35				
Administration	\$ 30				
<b>Direct Labor Total</b>	<b>\$33,275</b>			<b>\$33,275</b>	<b>100.00%</b>
<b>Indirect Costs:</b>					
<b>General Overhead</b>					
Indirect Labor	\$2,000	\$0	A	\$2,000	6.01%
Bid & Proposal Labor	2,400			\$2,400	7.21%
Advertising Labor	1,000	(2,500)	I	(\$1,500)	-4.51%
Rent	4,675	0	B	\$4,675	14.05%
Maintenance & Repairs	750	(750)	Q	\$0	0.00%
Travel	850	(50)	C,D	\$800	2.40%
Insurance	1,800	0	E,Q	\$1,800	5.41%
Telephone	2,311			\$2,311	6.95%
Taxes & Licenses	2,225	0	F	\$2,225	6.69%
Depreciation & Amortization	250	0	G,Q	\$250	0.75%
Employee Train/Recruit/Moving	650	0	J	650	1.95%
Professional Fees	8,000	0	K	\$8,000	24.04%
Computer	151			\$151	0.45%
Supplies & Miscellaneous	663	(63)	M	\$600	1.80%
<b>Total General Overhead</b>	<b>\$27,725</b>	<b>(\$3,363)</b>		<b>\$24,362</b>	<b>73.21%</b>
<b>Indirect Cost Rate - Office</b>	<b>83.32%</b>	<b>73.21%</b>		<b>73.21%</b>	
<b>Indirect Cost Rate - Field</b>	<b>83.32%</b>	<b>73.21%</b>		<b>73.21%</b>	

### Company Profit per Classification per Hour

	Direct Labor Rate	Percentage Profit	Profit as a Dollar Value per Hour
Civil Engineer	\$ 105	5%	\$5
Electrical Engineer	\$ 105	5%	\$5
Drafting	\$ 35	5%	\$2
Administration	\$ 30	5%	\$2

### Loaded Rates per Classification per Hour

	Direct Labor Rate	Percentage Profit	Indirect Cost Rate	Loaded Rate
Civil Engineer	\$ 105	5%	73.21%	\$187
Electrical Engineer	\$ 105	5%	73.21%	\$187
Drafting	\$ 35	5%	73.21%	\$62
Administration	\$ 30	5%	73.21%	\$53



# Standard Hourly Rate Sheet

**ARB** TEMECULA, CA  
949.380.9743  
WWW.ARBLECTRIC.COM  
**Electrical Inc.**

## References

### *ARB Electrical Inc. Indirect Cost Rate Internally Audited*

- A Excess executive compensation unallowable per 48 CFR 31.205-6(p)
- B Unallowable costs of idle capacity per 48 CFR 31.205-17(c)
- C Lodging, meal, and mileage rates in excess of federal travel regulation unallowable per 48 CFR 31.205-46(a)(2).
- D Inadequate supporting documentation unallowable per 48 CFR 31.201-2(d).
- E Key person life insurance unallowable per 48 CFR 31.205-19(e)(2)(v).
- F Unallowable taxes and licenses per 48 CFR 31.205-41.
- G Amortization of goodwill unallowable per 48 CFR 31.205-49.
- H Costs of memberships in civic and community organization unallowable per 48 CFR 31.205-1(f)(7).
- I Public relations and advertising unallowable per 48 CFR 31.205-1.
- J Entertainment unallowable per 48 CFR 31.205-14.
- K Legal Costs in relation to litigation unallowable per 48 CFR 31.205-47(f)(5).
- L Interest unallowable per 48 CFR 31.205-20.
- M Contributions unallowable per 48 CFR 31.205-81.
- N Promotional Marketing unallowable per 48 CFR 31.205-1 and 31.205-38.
- O Unsupported direct selling costs, no documentation available to demonstrate and support "person to person" selling unallowable per 48 CFR 31.205-38(b)(5).
- P Directly associated cost to unallowable advertising, public relations and direct selling labor unallowable per 48 CFR 31.201-6(a).
- Q Auto Allowance payments of \$12,000 unallowable per 48 CFR 31.205-6(m)(2) and 31.201-2(d), documentation of mileage log not available and unable to support and show segregation of business and personal use. Associated costs for vehicle unallowable per 48 CFR 31.205-46(d) and 31.205-6(m)(2). Associated costs include Insurance (\$1,556), Maintenance (\$997), and Depreciation (\$664).
- R Bonus payments unsupported and not performance based unallowable per 48 CFR 31.205-6 and 2010 AASHTO Audit Guide, Chapter 7, Section 7.12 C
- S Labor Variance Account to show the uncompensated overtime labor adjustment. Labor Variance account is an offset account to balance to payroll.
- T Severance payment does not follow company's established severance policy, unallowable per 48 CFR 31.205-6(g).

EXHIBIT 10-14 COST PROPOSAL FOR CONTRACTS WITH PREVAILING WAGES

Please Note: Contractor completes after a contract has been awarded.  
LOCAL COSTS IN THIS FORM ARE THE COSTS OF COMPLETION AND ARE NOT PART OF WORK CONTRACTS

**Contractor's Declaration**

I, the undersigned, hereby certify that the information furnished herein is true and correct to the best of my knowledge and belief, and that I am duly qualified to perform the work herein specified.

I declare under penalty of perjury that the information furnished herein is true and correct to the best of my knowledge and belief, and that I am duly qualified to perform the work herein specified.

**Contract Description**

Contract No. \_\_\_\_\_  
 Contract Title \_\_\_\_\_  
 Contract Location \_\_\_\_\_  
 Contract Start Date \_\_\_\_\_  
 Contract End Date \_\_\_\_\_

Item No.	Description	Unit	Quantity		Unit Price		Total Price		Material		Labor		Overhead & Profit		Total	Remarks
			Estimate	Actual	Estimate	Actual	Estimate	Actual	Estimate	Actual	Estimate	Actual	Estimate	Actual		
1	Excavation	cubic yard	100	100	1.00	1.00	100.00	100.00	80.00	80.00	20.00	20.00	20.00	20.00	140.00	
2	Backfill	cubic yard	100	100	1.00	1.00	100.00	100.00	80.00	80.00	20.00	20.00	20.00	20.00	140.00	
3	Gravel	cubic yard	100	100	1.00	1.00	100.00	100.00	80.00	80.00	20.00	20.00	20.00	20.00	140.00	
4	Asphalt	cubic yard	100	100	1.00	1.00	100.00	100.00	80.00	80.00	20.00	20.00	20.00	20.00	140.00	
5	Concrete	cubic yard	100	100	1.00	1.00	100.00	100.00	80.00	80.00	20.00	20.00	20.00	20.00	140.00	

Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>Ricondo</b>		<b>208.20%</b>		
Officer	\$101.14	\$210.58	\$42.28	\$354.00
Director	\$86.86	\$180.84	\$36.31	\$304.00
Managing Consultant	\$72.29	\$150.50	\$30.22	\$253.00
Senior Consultant	\$59.71	\$124.33	\$24.96	\$209.00
Consultant	\$47.71	\$99.34	\$19.94	\$167.00
Technical Specialist	\$38.57	\$80.31	\$16.12	\$135.00

Ricondo & Associates, Inc.

Multiplier Calculations based on 2017 Audited Overhead Rate (released May 21, 2018)

Direct Labor	1	(a)
Home Office Overhead Rate (OH)	2.082	(b)
<b>Direct Labor + OH</b>	<b>3.082</b>	(c) = (a)+(b)
Profit @ 15%	0.462	(d) = (c) x Profit %
<b>Multiplier</b>	<b>3.544</b>	(e) = (c)+(d)

Title/Category	Direct Labor Rate	Overhead	Profit	10/1/2018-09/30/2019 Total Loaded Rate**
<b>Klein folder</b>		<b>169.67%</b>		
Principal	\$87.46	\$148.39	\$25.94	261.79
Project Manager	\$62.59	\$106.20	\$18.57	187.36
Project Professional	\$59.85	\$101.55	\$17.75	179.15
Staff Professional	\$42.22	\$71.63	\$12.52	126.37
Senior CADD Designer	\$33.22	\$56.36	\$9.85	99.43
Project Administrator	\$38.86	\$65.93	\$11.53	116.32
Admin/Clerical	\$29.88	\$50.70	\$8.86	89.44
Materials Tester (Non-PW)	\$28.53	\$48.41	\$8.46	85.40
Senior Inspector (Non-PW)	\$36.97	\$62.73	\$10.97	110.67
Prevailing Wage Group 1, Materials Tester*	\$63.54	\$107.81	\$18.85	190.20
Prevailing Wage Group 2, Inspector*	\$65.13	\$110.51	\$19.32	194.96
Prevailing Wage Group 3, NDT*	\$64.50	\$109.44	\$19.13	193.07

**Notes:**

- \*Prevailing Wage Determination SC-23-63-2-2017-1D for Groups 1, 2 and 3
- \*\*3% escalation will be effective October 1st of each year commencing on 10/1/2019
- Hours worked 8-12 & Saturday will be billed at time and one-half, and hours greater than 12.
- Sundays & Holidays will be billed at double time.
- Sample Pickup/Canceled Work will be billed at 2.0 hour minimums.
- Mileage will be billed at IRS rates. Field Vehicles will be billed at \$44.55 per day.
- All Other Direct Costs and Reimbursables will be billed at actual cost.
- See attached Geotechnical and Materials Testing Services Fee Schedule.

Long Beach Airport  
Time Material / Lump Sum  
2020 Specific Rates of Compensation



Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Office)</b>		<b>105.80%</b>		
Senior Project Executive	\$155.10	\$164.09	\$15.81	\$335.00
Principal-in-Charge	\$142.16	\$150.41	\$14.43	\$307.00
Project Executive	\$136.06	\$143.95	\$13.99	\$294.00
Contract Manager	\$132.21	\$139.88	\$13.91	\$286.00
Project Principal	\$113.37	\$119.94	\$23.69	\$257.00
SMS/Safety Manager VI	\$109.42	\$115.77	\$22.81	\$248.00
SMS/Safety Manager V	\$95.94	\$101.50	\$19.56	\$217.00
SMS/Safety Manager IV	\$84.88	\$89.80	\$17.32	\$192.00
SMS/Safety Manager III	\$74.57	\$78.89	\$15.54	\$169.00
Project Manager VI	\$119.38	\$126.30	\$24.33	\$270.00
Project Manager V	\$109.42	\$115.77	\$22.81	\$248.00
Project Manager IV	\$99.47	\$105.24	\$20.29	\$225.00
Project Manager III	\$87.21	\$92.27	\$17.52	\$197.00
Project Manager II	\$77.16	\$81.64	\$16.20	\$175.00
Project Manager I	\$67.79	\$71.72	\$13.49	\$153.00
Quality Manager VI	\$119.38	\$126.30	\$24.33	\$270.00
Quality Manager V	\$109.42	\$115.77	\$22.81	\$248.00
Quality Manager IV	\$95.94	\$101.50	\$19.56	\$217.00
Design Manager VI	\$109.42	\$115.77	\$22.81	\$248.00
Design Manager V	\$99.47	\$105.24	\$20.29	\$225.00
Design Manager IV	\$87.21	\$92.27	\$17.52	\$197.00
Airfield Engineer VI	\$104.66	\$110.73	\$21.60	\$237.00
Airfield Engineer V	\$90.41	\$95.65	\$18.94	\$205.00
Airfield Engineer IV	\$79.72	\$84.35	\$15.93	\$180.00
Airfield Engineer III	\$70.02	\$74.09	\$14.89	\$159.00
Airfield Engineer II	\$61.51	\$65.08	\$12.40	\$139.00
Airfield Engineer I	\$54.00	\$57.13	\$10.86	\$122.00
Airfield Designer VI	\$81.35	\$86.06	\$16.59	\$184.00
Airfield Designer V	\$70.02	\$74.09	\$14.89	\$159.00
Airfield Designer IV	\$61.51	\$65.08	\$12.40	\$139.00
Airfield Designer III	\$54.00	\$57.13	\$10.86	\$122.00
Airfield Designer II	\$47.36	\$50.10	\$9.54	\$107.00
Airfield Designer I	\$41.59	\$44.00	\$8.41	\$94.00
Airfield Planner VI	\$104.66	\$110.73	\$21.60	\$237.00
Airfield Planner V	\$90.41	\$95.65	\$18.94	\$205.00
Airfield Planner IV	\$79.72	\$84.35	\$15.93	\$180.00
Airfield Planner III	\$70.02	\$74.09	\$14.89	\$159.00
Airfield Planner II	\$61.51	\$65.08	\$12.40	\$139.00
Airfield Planner I	\$54.00	\$57.13	\$10.86	\$122.00
Landscape Architect VI	\$92.60	\$97.97	\$19.44	\$210.00
Landscape Architect V	\$79.72	\$84.35	\$15.93	\$180.00
Landscape Architect IV	\$70.02	\$74.09	\$14.89	\$159.00
Landscape Architect III	\$61.51	\$65.08	\$12.40	\$139.00
Landscape Architect II	\$54.00	\$57.13	\$10.86	\$122.00
Landscape Architect I	\$47.36	\$50.10	\$9.54	\$107.00

Long Beach Airport  
Time Material / Lump Sum  
2020 Specific Rates of Compensation



Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Office)</b>		<b>105.80%</b>		
Architect VI	\$104.66	\$110.73	\$21.60	\$237.00
Architect V	\$90.41	\$95.65	\$18.94	\$205.00
Architect IV	\$79.72	\$84.35	\$15.93	\$180.00
Architect III	\$70.02	\$74.09	\$14.89	\$159.00
Architect II	\$61.51	\$65.08	\$12.40	\$139.00
Architect I	\$54.00	\$57.13	\$10.86	\$122.00
Structural Engineer VI	\$104.66	\$110.73	\$21.60	\$237.00
Structural Engineer V	\$90.41	\$95.65	\$18.94	\$205.00
Structural Engineer IV	\$79.72	\$84.35	\$15.93	\$180.00
Structural Engineer III	\$70.02	\$74.09	\$14.89	\$159.00
Structural Engineer II	\$61.51	\$65.08	\$12.40	\$139.00
Structural Engineer I	\$54.00	\$57.13	\$10.86	\$122.00
BHS Consultant	\$65.70	\$69.51	\$13.79	\$149.00
Electrical Engineer VI	\$104.66	\$110.73	\$21.60	\$237.00
Electrical Engineer V	\$90.41	\$95.65	\$18.94	\$205.00
Electrical Engineer IV	\$79.72	\$84.35	\$15.93	\$180.00
Electrical Engineer III	\$70.02	\$74.09	\$14.89	\$159.00
Electrical Engineer II	\$61.51	\$65.08	\$12.40	\$139.00
Electrical Engineer I	\$54.00	\$57.13	\$10.86	\$122.00
Mechanical Engineer VI	\$104.66	\$110.73	\$21.60	\$237.00
Mechanical Engineer V	\$90.41	\$95.65	\$18.94	\$205.00
Mechanical Engineer IV	\$79.72	\$84.35	\$15.93	\$180.00
Mechanical Engineer III	\$70.02	\$74.09	\$14.89	\$159.00
Mechanical Engineer II	\$61.51	\$65.08	\$12.40	\$139.00
Mechanical Engineer I	\$54.00	\$57.13	\$10.86	\$122.00
Construction Manager VI	\$109.42	\$115.77	\$22.81	\$248.00
Construction Manager V	\$99.47	\$105.24	\$20.29	\$225.00
Construction Manager IV	\$87.21	\$92.27	\$17.52	\$197.00
Construction Manager III	\$77.16	\$81.64	\$16.20	\$175.00
Construction Manager II	\$67.79	\$71.72	\$13.49	\$153.00
Construction Manager I	\$61.01	\$64.55	\$12.44	\$138.00
Deputy Construction Manager	\$74.57	\$78.89	\$15.54	\$169.00
Resident Engineer VI	\$92.60	\$97.97	\$19.44	\$210.00
Resident Engineer V	\$79.72	\$84.35	\$15.93	\$180.00
Resident Engineer IV	\$70.02	\$74.09	\$14.89	\$159.00
Resident Engineer III	\$61.51	\$65.08	\$12.40	\$139.00
Resident Engineer II	\$54.00	\$57.13	\$10.86	\$122.00
Resident Engineer I	\$47.36	\$50.10	\$9.54	\$107.00
Airfield Inspector VI	\$92.60	\$97.97	\$19.44	\$210.00
Airfield Inspector V	\$79.72	\$84.35	\$15.93	\$180.00
Airfield Inspector IV	\$70.02	\$74.09	\$14.89	\$159.00
Airfield Inspector III	\$61.51	\$65.08	\$12.40	\$139.00
Airfield Inspector II	\$54.00	\$57.13	\$10.86	\$122.00
Airfield Inspector I	\$47.36	\$50.10	\$9.54	\$107.00

Long Beach Airport  
Time Material / Lump Sum  
2020 Specific Rates of Compensation



Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Office)</b>		<b>105.80%</b>		
COMSEC Engineer VI	\$104.66	\$110.73	\$21.60	\$237.00
COMSEC Engineer V	\$90.41	\$95.65	\$18.94	\$205.00
COMSEC Engineer IV	\$79.72	\$84.35	\$15.93	\$180.00
COMSEC Engineer III	\$70.02	\$74.09	\$14.89	\$159.00
COMSEC Engineer II	\$61.51	\$65.08	\$12.40	\$139.00
COMSEC Engineer I	\$54.00	\$57.13	\$10.86	\$122.00
COMSEC Programmer VI	\$104.66	\$110.73	\$21.60	\$237.00
COMSEC Programmer V	\$90.41	\$95.65	\$18.94	\$205.00
COMSEC Programmer IV	\$79.72	\$84.35	\$15.93	\$180.00
COMSEC Programmer III	\$70.02	\$74.09	\$14.89	\$159.00
COMSEC Programmer II	\$61.51	\$65.08	\$12.40	\$139.00
COMSEC Programmer I	\$54.00	\$57.13	\$10.86	\$122.00
COMSEC Technician VI	\$71.44	\$75.59	\$14.97	\$162.00
COMSEC Technician V	\$61.51	\$65.08	\$12.40	\$139.00
COMSEC Technician IV	\$54.00	\$57.13	\$10.86	\$122.00
COMSEC Technician III	\$47.36	\$50.10	\$9.54	\$107.00
COMSEC Technician III	\$41.59	\$44.00	\$8.41	\$94.00
COMSEC Technician I	\$36.49	\$38.61	\$7.90	\$83.00
CADD Technician VI	\$87.21	\$92.27	\$17.52	\$197.00
CADD Technician V	\$77.16	\$81.64	\$16.20	\$175.00
CADD Technician IV	\$67.79	\$71.72	\$13.49	\$153.00
CADD Technician III	\$59.52	\$62.97	\$12.51	\$135.00
CADD Technician II	\$52.31	\$55.34	\$10.35	\$118.00
CADD Technician I	\$45.87	\$48.53	\$9.61	\$104.00
Project Coordinator VI	\$92.60	\$97.97	\$19.44	\$210.00
Project Coordinator VI	\$79.72	\$84.35	\$15.93	\$180.00
Project Coordinator IV	\$70.02	\$74.09	\$14.89	\$159.00
Project Coordinator III	\$57.97	\$61.33	\$11.70	\$131.00
Project Coordinator II	\$47.36	\$50.10	\$9.54	\$107.00
Project Coordinator I	\$39.16	\$41.43	\$8.41	\$89.00

**Notes:**

1. Above listed rates are effective January 1, 2020 through December 31, 2020.
2. Above listed rates are based on the At-Office overhead rate for Buildings and Infrastructure Americas Design for the Fiscal Year Ended September 29, 2018.
3. Buildings and Infrastructure Americas Design is a Business Unit of Jacobs Engineering Group Inc.
4. Direct Labor Rate is maximum compensation for that Labor Category.
5. Pay Grade - Level I: 0-7 years experience
6. Pay Grade - Level II: 5-15 years experience
7. Pay Grade - Level III: 10-20 years experience
8. Pay Grade - Level IV: 15+ years experience
9. Pay Grade - Level V: 20+ years experience
10. Pay Grade - Level VI: 25+ years experience
11. Other Direct Costs (ODC) will be billed at actual cost without markup
12. Contracting method will be agreed upon by Consultant and LGB prior to approval of proposal and execution of work.

Long Beach Airport  
Time Materials / Lump Sum  
2020 Specific Rates of Compensation



Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Site)</b>		<b>80.83%</b>		
Senior Project Executive	\$155.10	\$125.36	\$13.54	\$294.00
Principal-in-Charge	\$142.16	\$114.91	\$12.93	\$270.00
Project Executive	\$136.06	\$109.98	\$11.97	\$258.00
Contract Manager	\$132.21	\$106.87	\$11.92	\$251.00
Project Principal	\$113.37	\$91.63	\$20.00	\$225.00
SMS/Safety Manager VI	\$109.42	\$88.45	\$20.13	\$218.00
SMS/Safety Manager V	\$95.94	\$77.55	\$17.52	\$191.00
SMS/Safety Manager IV	\$84.88	\$68.61	\$15.51	\$169.00
SMS/Safety Manager III	\$74.57	\$60.27	\$13.16	\$148.00
Project Manager VI	\$119.38	\$96.49	\$21.13	\$237.00
Project Manager V	\$109.42	\$88.45	\$20.13	\$218.00
Project Manager IV	\$99.47	\$80.40	\$18.13	\$198.00
Project Manager III	\$87.21	\$70.49	\$15.30	\$173.00
Project Manager II	\$77.16	\$62.37	\$13.47	\$153.00
Project Manager I	\$67.79	\$54.79	\$12.42	\$135.00
Quality Manager VI	\$119.38	\$96.49	\$21.13	\$237.00
Quality Manager V	\$109.42	\$88.45	\$20.13	\$218.00
Quality Manager IV	\$95.94	\$77.55	\$17.52	\$191.00
Design Manager VI	\$109.42	\$88.45	\$20.13	\$218.00
Design Manager V	\$99.47	\$80.40	\$18.13	\$198.00
Design Manager IV	\$87.21	\$70.49	\$15.30	\$173.00
Airfield Engineer VI	\$104.66	\$84.60	\$18.74	\$208.00
Airfield Engineer V	\$90.41	\$73.08	\$16.51	\$180.00
Airfield Engineer IV	\$79.72	\$64.44	\$14.84	\$159.00
Airfield Engineer III	\$70.02	\$56.60	\$12.38	\$139.00
Airfield Engineer II	\$61.51	\$49.72	\$10.76	\$122.00
Airfield Engineer I	\$54.00	\$43.65	\$9.35	\$107.00
Airfield Designer VI	\$81.35	\$65.75	\$14.90	\$162.00
Airfield Designer V	\$70.02	\$56.60	\$12.38	\$139.00
Airfield Designer IV	\$61.51	\$49.72	\$10.76	\$122.00
Airfield Designer III	\$54.00	\$43.65	\$9.35	\$107.00
Airfield Designer II	\$47.36	\$38.28	\$8.37	\$94.00
Airfield Designer I	\$41.59	\$33.61	\$7.80	\$83.00
Airfield Planner VI	\$104.66	\$84.60	\$18.74	\$208.00
Airfield Planner V	\$90.41	\$73.08	\$16.51	\$180.00
Airfield Planner IV	\$79.72	\$64.44	\$14.84	\$159.00
Airfield Planner III	\$70.02	\$56.60	\$12.38	\$139.00
Airfield Planner II	\$61.51	\$49.72	\$10.76	\$122.00
Airfield Planner I	\$54.00	\$43.65	\$9.35	\$107.00
Landscape Architect VI	\$92.60	\$74.85	\$16.56	\$184.00
Landscape Architect V	\$79.72	\$64.44	\$14.84	\$159.00
Landscape Architect IV	\$70.02	\$56.60	\$12.38	\$139.00
Landscape Architect III	\$61.51	\$49.72	\$10.76	\$122.00
Landscape Architect II	\$54.00	\$43.65	\$9.35	\$107.00
Landscape Architect I	\$47.36	\$38.28	\$8.37	\$94.00



Long Beach Airport  
Time Materials / Lump Sum  
2020 Specific Rates of Compensation



Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Site)</b>		<b>80.83%</b>		
Architect VI	\$104.66	\$84.60	\$18.74	\$208.00
Architect V	\$90.41	\$73.08	\$16.51	\$180.00
Architect IV	\$79.72	\$64.44	\$14.84	\$159.00
Architect III	\$70.02	\$56.60	\$12.38	\$139.00
Architect II	\$61.51	\$49.72	\$10.76	\$122.00
Architect I	\$54.00	\$43.65	\$9.35	\$107.00
Structural Engineer VI	\$104.66	\$84.60	\$18.74	\$208.00
Structural Engineer V	\$90.41	\$73.08	\$16.51	\$180.00
Structural Engineer IV	\$79.72	\$64.44	\$14.84	\$159.00
Structural Engineer III	\$70.02	\$56.60	\$12.38	\$139.00
Structural Engineer II	\$61.51	\$49.72	\$10.76	\$122.00
Structural Engineer I	\$54.00	\$43.65	\$9.35	\$107.00
BHS Consultant	\$65.70	\$53.11	\$12.19	\$131.00
Electrical Engineer VI	\$104.66	\$84.60	\$18.74	\$208.00
Electrical Engineer V	\$90.41	\$73.08	\$16.51	\$180.00
Electrical Engineer IV	\$79.72	\$64.44	\$14.84	\$159.00
Electrical Engineer III	\$70.02	\$56.60	\$12.38	\$139.00
Electrical Engineer II	\$61.51	\$49.72	\$10.76	\$122.00
Electrical Engineer I	\$54.00	\$43.65	\$9.35	\$107.00
Mechanical Engineer VI	\$104.66	\$84.60	\$18.74	\$208.00
Mechanical Engineer V	\$90.41	\$73.08	\$16.51	\$180.00
Mechanical Engineer IV	\$79.72	\$64.44	\$14.84	\$159.00
Mechanical Engineer III	\$70.02	\$56.60	\$12.38	\$139.00
Mechanical Engineer II	\$61.51	\$49.72	\$10.76	\$122.00
Mechanical Engineer I	\$54.00	\$43.65	\$9.35	\$107.00
Construction Manager VI	\$109.42	\$88.45	\$20.13	\$218.00
Construction Manager V	\$99.47	\$80.40	\$18.13	\$198.00
Construction Manager IV	\$87.21	\$70.49	\$15.30	\$173.00
Construction Manager III	\$77.16	\$62.37	\$13.47	\$153.00
Construction Manager II	\$67.79	\$54.79	\$12.42	\$135.00
Construction Manager I	\$61.01	\$49.31	\$10.68	\$121.00
Deputy Construction Manager	\$74.57	\$60.27	\$13.16	\$148.00
Resident Engineer VI	\$92.60	\$74.85	\$16.56	\$184.00
Resident Engineer V	\$79.72	\$64.44	\$14.84	\$159.00
Resident Engineer IV	\$70.02	\$56.60	\$12.38	\$139.00
Resident Engineer III	\$61.51	\$49.72	\$10.76	\$122.00
Resident Engineer II	\$54.00	\$43.65	\$9.35	\$107.00
Resident Engineer I	\$47.36	\$38.28	\$8.37	\$94.00
Airfield Inspector VI	\$92.60	\$74.85	\$16.56	\$184.00
Airfield Inspector V	\$79.72	\$64.44	\$14.84	\$159.00
Airfield Inspector IV	\$70.02	\$56.60	\$12.38	\$139.00
Airfield Inspector III	\$61.51	\$49.72	\$10.76	\$122.00
Airfield Inspector II	\$54.00	\$43.65	\$9.35	\$107.00
Airfield Inspector I	\$47.36	\$38.28	\$8.37	\$94.00

Long Beach Airport  
Time Materials / Lump Sum  
2020 Specific Rates of Compensation



Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>JACOBS (at-Site)</b>		<b>80.83%</b>		
COMSEC Engineer VI	\$104.66	\$84.60	\$18.74	\$208.00
COMSEC Engineer V	\$90.41	\$73.08	\$16.51	\$180.00
COMSEC Engineer IV	\$79.72	\$64.44	\$14.84	\$159.00
COMSEC Engineer III	\$70.02	\$56.60	\$12.38	\$139.00
COMSEC Engineer II	\$61.51	\$49.72	\$10.76	\$122.00
COMSEC Engineer I	\$54.00	\$43.65	\$9.35	\$107.00
COMSEC Programmer VI	\$104.66	\$84.60	\$18.74	\$208.00
COMSEC Programmer V	\$90.41	\$73.08	\$16.51	\$180.00
COMSEC Programmer IV	\$79.72	\$64.44	\$14.84	\$159.00
COMSEC Programmer III	\$70.02	\$56.60	\$12.38	\$139.00
COMSEC Programmer II	\$61.51	\$49.72	\$10.76	\$122.00
COMSEC Programmer I	\$54.00	\$43.65	\$9.35	\$107.00
COMSEC Technician VI	\$71.44	\$57.75	\$12.81	\$142.00
COMSEC Technician V	\$61.51	\$49.72	\$10.76	\$122.00
COMSEC Technician IV	\$54.00	\$43.65	\$9.35	\$107.00
COMSEC Technician III	\$47.36	\$38.28	\$8.37	\$94.00
COMSEC Technician III	\$41.59	\$33.61	\$7.80	\$83.00
COMSEC Technician I	\$36.49	\$29.50	\$7.01	\$73.00
CADD Technician VI	\$87.21	\$70.49	\$15.30	\$173.00
CADD Technician V	\$77.16	\$62.37	\$13.47	\$153.00
CADD Technician IV	\$67.79	\$54.79	\$12.42	\$135.00
CADD Technician III	\$59.52	\$48.11	\$10.37	\$118.00
CADD Technician II	\$52.31	\$42.28	\$9.41	\$104.00
CADD Technician I	\$45.87	\$37.07	\$8.06	\$91.00
Project Coordinator VI	\$92.60	\$74.85	\$16.56	\$184.00
Project Coordinator VI	\$79.72	\$64.44	\$14.84	\$159.00
Project Coordinator IV	\$70.02	\$56.60	\$12.38	\$139.00
Project Coordinator III	\$57.97	\$46.86	\$10.18	\$115.00
Project Coordinator II	\$47.36	\$38.28	\$8.37	\$94.00
Project Coordinator I	\$39.16	\$31.65	\$7.19	\$78.00

Notes:

1. Above listed rates are effective January 1, 2020 through December 31, 2020.
2. Above listed rates are based on the At-Office overhead rate for Buildings and Infrastructure Americas Design for the Fiscal Year Ended September 29, 2018.
3. Buildings and Infrastructure Americas Design is a Business Unit of Jacobs Engineering Group Inc.
4. Direct Labor Rate is maximum compensation for that Labor Category.
5. Pay Grade - Level I: 0-7 years experience
6. Pay Grade - Level II: 5-15 years experience
7. Pay Grade - Level III: 10-20 years experience
8. Pay Grade - Level IV: 15+ years experience
9. Pay Grade - Level V: 20+ years experience
10. Pay Grade - Level VI: 25+ years experience
11. Other Direct Costs (ODC) will be billed at actual cost without markup
12. Contracting method will be agreed upon by Consultant and LGB prior to approval of proposal and execution of work.

Title/Category		Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>LEXAX</b>			<b>126.28%</b>		
LEXAX Construction Services, Inc.	Patricia Benny	\$40.00	\$50.51	\$9.05	\$99.56
<b>B. Additional Services</b>					
Any additional services required in addition to Section A & B will be treated as additional services and the following hourly rates will apply:					
<b>LEXAX - Additional Services</b>			<b>Office Rate</b>		<b>Home Rate</b>
Sr. Document Control			\$110.50		\$113.53
Document Control			\$85.94		\$88.30
Lead Estimator					\$227.07
Sr. Estimator					\$171.56
Sr. Estimator (MEP)					\$176.61

LENAX (T & M) Fee Breakdown based on 40 hours per week for 10 months for Document Control Support Services from field office.

Information retrieved from proposal dated July 1, 2019.



## Schedule of Fees 2019 - 2020

NOTE: Rates will be adjusted annually each July 1st to reflect increased costs

Personnel Rates: Per Hour Unless Otherwise Noted

Task Code	Engineering and Consulting Personnel	Rate
10026	Senior Principal Advisor/Consultant	\$ 300.00
10001	Principal Engineer/Geologist	\$ 200.00
10017	Metallurgical Engineer	\$ 190.00
70000	Registered Geotechnical Engineer	\$ 195.00
10010	Technical Advisor	\$ 195.00
10011	Material Scientist, Welding/NDT Consultant	\$ 205.00
70003	Registered Geologist/Certified Engineering Geologist	\$ 185.00
10003	Senior Engineer/Geologist	\$ 175.00
10009	Registered Civil Engineer	\$ 170.00
60003	Roofing/Waterproofing Consultant	\$ 195.00
10013	Project Engineer/Manager	\$ 165.00
30000	Quality Control Manager	\$ 155.00
10005	Senior Staff Engineer/Geologist	\$ 150.00
10007	Staff Engineer/Geologist	\$ 145.00
10015	Quality Control Administrator	\$ 135.00
10019	Metallurgical Technician	\$ 110.00
90001	CADD Operator/Draftsperson	\$ 97.00
70107	Field Supervisor	\$ 130.00
91030	Safety Supervisor	\$ 130.00
20000	Laboratory Manager	\$ 115.00
98000	Laboratory Technician	\$ 95.00
90005	Expert Witness Testimony	\$ 525.00
91010	Qualified SWPPP Developer	\$ 150.00
91000	Qualified SWPPP Practitioner	\$ 135.00
30001	Vibration Engineer	\$ 175.00

Task Code	Field Inspection Personnel	Rate
10101	Concrete/Reinforced Steel Inspector	\$ 115.00
10103	Prestressed/Post Tensioned Inspector	\$ 115.00
10105	Concrete ICC Inspector	\$ 115.00
10109	Drilled-In-Anchor Inspector	\$ 115.00
10111	Gunite/Shotcrete Inspector	\$ 115.00
10113	Masonry Inspector	\$ 115.00
10201	Structural Steel/Welding Inspector	\$ 115.00
10203	AWS Certified Welding Inspector	\$ 115.00
10207	Fireproofing Inspector	\$ 115.00
10501	Lead Inspector	\$ 119.00
10115	Firestop Special Inspector - IFC Premier	\$ 130.00
10117	Firestop Special Inspector - IQP	\$ 160.00
70109	L.A. Deputy Grading Inspector	\$ 120.00
75001	Asphalt Field and Plant Inspector/Technician	\$ 115.00
70103	Pile Driving Inspector	\$ 115.00
70101	Soils Technician	\$ 115.00
10107	Concrete Quality Control (ACI/Caltrans Technician)	\$ 115.00
10122	Wood Framing Inspector	\$ 115.00
60001	Roofing/Waterproofing Inspector	\$ 122.00
10515	Mechanical Inspector	\$ 140.00
10519	Electrical Inspector	\$ 140.00
10521	Plumbing Inspector	\$ 140.00
10523	Building Inspector	\$ 135.00
30002	Vibration Monitoring Technician	\$ 108.00
50003	Field Engineering Technician	\$ 120.00

Task Code	Shop Inspection Personnel	Rate
10301	Structural Steel Fabrication Inspector	\$ 116.00
10309	Batch Plant Quality Control Technician/Inspector	\$ 115.00
10325	Glue-Laminated Fabrication Inspector	Quotation
10328	Pre-Cast Concrete/Pipe Fabrication Inspector	\$ 116.00

Task Code	Non-Destructive Testing Personnel	Rate
10401	NDE Ultrasonic Testing Technician	\$ 120.00
10403	NDE Magnetic Particle Testing Technician	\$ 120.00
10405	NDE Dye Penetrant Testing Technician	\$ 120.00
10305	Combination NDE Technician/Welding Inspector	\$ 120.00
10409	Radiographic Testing (crew of 2)	\$ 315.00
10020	NDE Engineer	\$ 180.00

Task Code	Equipment Usage (Daily Unless Otherwise Noted)	Rate
95318	Skidmore	\$ 40.00
95309	Torque Wrench, Small	\$ 15.00
95312	Torque Wrench, Large	\$ 25.00
95315	Torque Multiplier	\$ 40.00
95321	Air Meter	\$ 20.00
95324	Brass Mold	\$ 20.00
95343	Nuclear Gauge (Per Hour)	\$ 9.00
95333	Pull Test Equipment	\$ 60.00
95348	Concrete/Asphalt Coring Equipment	\$ 600.00
95327	Pachometer	\$ 55.00
95336	Floor Flatness (Dipstick)	\$ 45.00
95330	Schmidt Hammer	\$ 20.00
95341	Vapor Emission Test Kits	\$ 30.00
95342	Relative Humidity Probe	\$ 60.00
95339	UPV (Ultrasonic Pulse Velocity) Meter	\$ 350.00
95351	Fireproofing Adhesion/Cohesion (Per Test)	\$ 35.00
95300	A Scan Ultrasonic Equipment and Consumables	\$ 75.00
95303	Magnetic Particle Equipment and Consumables	\$ 40.00
95306	Liquid Penetrant Consumables	\$ 35.00
95307	Phased Array Ultrasonic Equipment (Per Hour)	\$ 60.00
95347	Ground Penetrating Radar	\$ 300.00
95345	Impact Echo	\$ 350.00
95362	Ultrasonic Tomography	\$ 450.00
95349	Inertial Prober (Per Hour)	\$ 260.00
95357	Project Dedicated Vehicle	\$ 110.00
95384	Roller Compacted Concrete Vibrating Hammer/Tamping Plate	\$ 70.00
95367	Half-cell Potential Equipment Set	\$ 350.00
95368	Concrete Electrical Resistivity Meter	\$ 160.00
95360	Field Hardness (Steel)	\$ 100.00
95370	Coating Thickness Gauge	\$ 100.00
95371	Temperature Control Curing Box (Per Month)	\$ 450.00
95372	Temperature Matching Curing Box (Per Month)	\$ 520.00

Task Code	Specimen Pick-Up	Rate
20102	Standard Sample: Concrete Cylinders (Each)	\$ 23.00
20101	Standard Sample: Mortar/Grout Cubes and Cores, Fireproofing, Rebar, and Epoxy Prisms (Each)	\$ 23.00
20103	Oversize Sample: Masonry Pnsns, Shotcrete Panels,	\$ 50.00
20104	Flexural Beams (Each)	
20107	Technician for Specimen Pick-Up Not Listed Above (Per Hour, 2-Hour Minimum)	\$ 95.00
20109	Technician for Specimen Pick-Up Before 5:00 a.m. or After 5:00 p.m. Monday thru Friday, or All Day Saturday (Per Hour, 2-Hour Minimum Plus Mileage)	\$ 120.00

Task Code	Jobsite Trailer, Mobile or On-site Laboratory	Rate
95360	Mobile laboratory for rapid strength concrete (per shift not exceeding 12 hours) All others by quotation	\$ 450.00

Task Code	Concrete Tests (Field Made Specimens)	Rate
20201	6" x 12" Cylinder: Compression Strength (ASTM C39)	\$ 36.00
20202	4" x 8" Cylinder: Compression Strength (ASTM C39)	\$ 31.00
20203	Density of Structural Lightweight Concrete Equilibrium or Oven Dry Method (ASTM C567)	\$ 77.00
20205	Core Compression including Trimming (ASTM C42)	\$ 62.00
20207	6" x 6" x 18" Flexural Beams Not Exceeding Referenced Size (ASTM C78, C293 or CTM 523)	\$ 85.00
20209	Splitting Tensile Strength (ASTM C496)	\$ 90.00
20211	Modulus of Elasticity Test (ASTM C469)	\$ 240.00
80003	Rapid Chloride Permeability Test: Cylinders or Cores (ASTM C1202)	\$ 490.00
80006	Density, Absorption, and Voids in Hardened Concrete (ASTM C642)	\$ 450.00



## General Conditions

NOTE: Field inspection work conditions are established by contract with Operating Engineers, Local 12.

NOTE: A minimum of 24 hours notice is required for testing and inspection services.

NOTE: For projects subject to a Project Labor Agreement (PLA), if terms/conditions of the PLA are more restrictive those terms/conditions will apply.

NOTE: Rates will be adjusted annually each July 1st to reflect increased costs

### Administrative Fees

All administrative costs including report distribution and Twining ConstructionHive system are billed at the following percentage of the monthly invoice total: 4%

Note that hard copies of reports will be sent only to governing jurisdictions that mandate them. All other parties will receive reports electronically. The administrative fee above will receive reports electronically. The administrative fee above will be increased by 1% if additional hard copies of reports are requested

### Minimum Charges (Inspection and Technician Personnel Only - Other Personnel Charged on Portal to Portal Basis)

2-Hour Minimum: Inspector arrives at jobsite, no work to perform

4-Hour Minimum: 1 to 4 hours of inspection

8-Hour Minimum: Over 4 to 8 hours of inspection

### Regular Time

The first 8 hours worked Monday through Friday between 5:00 a.m. and 5:00 p.m.

### Time and One-Half (All Types of Inspection)

All shifts will be billed based on the time and date of their start. Any increment past 8 hours through 12 hours worked Monday through Friday and the first 12 hours on Saturday.

Time and one-half will also be charged for the first four hours before 5:00 a.m. and after 5:00 p.m.

### Double Time (All Types of Inspection)

All shifts will be billed based on the time and date of their start. After the first 12 hours worked Monday through Saturday, all day Sunday, holidays, and the first Saturday following the first Friday in June and December. After the first four hours worked before 5:00 a.m. and after 5:00 p.m. Holidays are New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving, the day after Thanksgiving and Christmas Day.

### Meal Period

When personnel are required by their duties to work more than five consecutive hours without a one-half hour uninterrupted meal period, one half hour at double time rate will be charged in addition to any applicable overtime for actual hours worked

### Shift Differential (Applies to Regularly Scheduled Shifts Only)

A \$1.00 per hour shift differential premium will be charged for all inspection hours that fall outside of the 5:00 a.m. to 5:00 p.m. time period. Twining will require 48-hour notice along with the General Contractors approved shift letter prior to beginning a shift that will include hours falling outside this time period. Should this notice not be provided, all work performed on that shift will be billed at the overtime rate.

If three shifts per day are required, the first shift will be billed at the standard rate. The second shift shall be billed in accordance with the previous paragraph.

The third shift shall be billed at 8 hours for the first 6 1/2 hours worked and appropriate overtime for all hours thereafter.

### Travel Time and Mileage

For projects outside a 50-mile radius from the nearest Twining facility, \$0.70 per excess mile to and from the project will be charged for inspectors and technicians.

Other than small tools, whenever project related equipment is required to be transported to and from the project site, time and mileage for inspectors and field technicians will be billed on a portal to portal basis. For all projects, \$0.70 per mile rate and applicable travel time will be charged portal to portal for engineers, consultants, supervisors, and laboratory technicians from the laboratory to the project site and return.

For work locations located 100 miles or more from Twining, travel time will be charged at the relevant rate for inspectors and technicians in addition to a subsistence allowance.

### Weekend Sample Pick-Ups

In order to be in strict conformance with testing standards, it may be required that weekend pick-ups be performed (e.g. concrete specimens cast on Friday must be picked up on weekend in order to be in conformance with ASTM C31 requiring specimens to be moved to their final curing location within 48 hours of casting.) Applicable charges for weekend work will apply when this is required. Should these charges not be authorized then Twining will not be responsible for any negative consequences.

### Reimbursable Expenses

Parking, air fare, car rental, food and lodging, etc. will be charged at cost plus 20% per processed invoice, unless provided by client

### Project Specific Documents

Costs presented assume that client will provide project specific documents (plans, specifications, submittals, RFIs, etc.) for all inspection personnel. Should project specific documents be provided electronically through a "for fee" service, the client will be responsible for providing access and paying any fees for the service.

### Project Site Facilities

Prices quoted assume that initial curing facilities for test samples that comply with relevant test standards and project requirements are provided by others. In addition, prices quoted assume that work/desk space for inspection staff are provided by others. Additional costs will apply should Twining be required to provide such facilities.

### Subsistence

Subsistence on remote jobs will be charged per quotation.

### Laboratory Testing Hours

Please note that laboratory testing will be billed on an hourly basis for non-standard tests. If testing is required to be performed on Saturdays, Sundays, holidays, or before 5:30 a.m. or after 4:00 p.m. on weekdays, an additional hourly charge with a minimum of one hour will be applied for the laboratory technician. 1.5 x regular test rate will be charged for rush testing.

### Charges for Subcontracted Services

Material sent to outside laboratory for testing	Cost plus 20%
Material sent to outside fabricator or machine shop.	Cost plus 20%
Glu-Lam beam inspection:	Cost plus 20%
Other subcontractors:	Cost plus 20%
Project exclusive equipment purchase:	Cost plus 20%



## General Conditions, continued

### Limit of Liability

Client agrees to limit Twining's aggregate liability to all entities for alleged or actual errors and omissions in the performance of its professional services under this agreement to \$50,000.00 or the fees actually paid to Twining, whichever amount is greater. Higher limits may be available by quotation.

### Certified Payroll

Certified payroll will be provided, upon request, at an additional charge of \$150.00/month. Fee applies to every month that certified payroll must be submitted regardless of whether or not services were provided for any given month.

### Final Reports Required by Jurisdiction

If a final report or affidavit is required, we must first review all inspection and testing reports and clear up any unresolved issues on these reports. These issues will typically require approval by the engineer or architect of record. This process can take several weeks or just a day, depending on the number and complexity of the issues. Cost for final reports will be billed hourly.

### Terms of Payment

Fees charged are for professional and technical services and are due upon presentation. If not paid within 30 days from date of invoice, they are considered past due and a finance charge of 1½% per month will be added to the unpaid balance.

A 3% fee will be applied for payments processed by credit card.

All invoice errors or necessary corrections shall be brought to the attention of Twining within 15 days of receipt of invoice. Thereafter, customer acknowledges invoices are correct and valid. Twining reserves the right to terminate its services to a customer without notice if all invoices are not current. Upon such termination of services, the entire amount accrued for all services performed shall immediately become due and payable. Customer waives any and all claims against Twining, its subsidiaries, affiliates, servants and agents for termination of work on account of these terms.

In the event of any litigation arising from or related to any agreement to provide services whether verbal or written, the prevailing party shall be entitled to recover from the non-prevailing party all reasonable costs incurred, including staff time, court costs, attorney's fees and all other related expenses in such litigation. Additionally, in the event of a non-adjudicative settlement of litigation between the parties or a resolution of dispute by arbitration, that same process shall determine the prevailing party.

### Specimen Disposal

Specimens will be discarded after testing unless Twining has been notified prior to testing that the customer wishes to retrieve the specimens or storage arrangements are made.

### Oversize Specimens

An extra charge will be made when test specimens require more than one person to handle because of size or weight.

### Elevated Work Platforms

In the event an elevated work platform is required to safely complete our inspections, the client must provide safe access, including a trained and certified operator, to Twining inspection and testing personnel.

**FY 2020**

**Standard Hourly  
Rate Sheet**

**ARB** TEMECULA, CA  
949.286.9743  
WWW.ARBLECTRIC.COM  
**Electrical Inc.**

Description	Financial Statement Amount	ARB Adj.	Ref.	Accepted Amount	%
<b>Direct Labor Rate</b>					
Civil Engineer	\$ 120				
Electrical Engineer	\$ 120				
Drafting	\$ 70				
Administration	\$ 50				
<b>Direct Labor Total</b>	<b>\$33,275</b>			<b>\$33,275</b>	<b>100.00%</b>
<b>Indirect Costs:</b>					
<b>General Overhead</b>					
Indirect Labor	\$2,000	\$0	A	\$2,000	6.01%
Bid & Proposal Labor	2,000	(1,000)		\$1,000	3.01%
Advertising Labor	500	(2,500)	I	(\$2,000)	-6.01%
Rent	11,770	(7,500)	B	\$4,270	12.83%
Maintenance & Repairs	750	(750)	Q	\$0	0.00%
Travel	850	(50)	C,D	\$800	2.40%
Insurance	12,753	(5,000)	E,Q	\$7,753	23.30%
Telephone	2,311			\$2,311	6.95%
Taxes & Licenses	3,000	(1,500)	F	\$1,500	4.51%
Depreciation & Amortization	250	0	G,Q	\$250	0.75%
Employee Train/Recruit/Moving	600	(300)	J	300	0.90%
Professional Fees	2,000	0	K	\$2,000	6.01%
Computer	151	(51)		\$100	0.30%
Supplies & Miscellaneous	663	(63)	M	\$600	1.80%
<b>Total General Overhead</b>	<b>\$39,598</b>	<b>(\$18,714)</b>		<b>\$20,884</b>	<b>62.76%</b>
<b>Indirect Cost Rate - Office</b>	<b>119.00%</b>	<b>62.76%</b>		<b>62.76%</b>	
<b>Indirect Cost Rate - Field</b>	<b>119.00%</b>	<b>62.76%</b>		<b>62.76%</b>	

**Company Profit per Classification per Hour**

	Direct Labor Rate	Percentage Profit	Profit as a Dollar Value per Hour
Civil Engineer	\$ 120	5%	\$6
Electrical Engineer	\$ 120	5%	\$6
Drafting	\$ 70	5%	\$4
Administration	\$ 50	5%	\$3

**Loaded Rates per Classification per Hour**

	Direct Labor Rate	Percentage Profit	Indirect Cost Rate	Loaded Rate
Civil Engineer	\$ 120	5%	62.76%	<b>\$201</b>
Electrical Engineer	\$ 120	5%	62.76%	<b>\$201</b>
Drafting	\$ 70	5%	62.76%	<b>\$117</b>
Administration	\$ 50	5%	62.76%	<b>\$84</b>

**FY 2020**

## **Standard Hourly Rate Sheet**

**ARB** TEMECULA, CA  
949.780.9743  
WWW.ARBELECTRIC.COM  
**Electrical Inc.**

### **References**

#### ***ARB Electrical Inc. Indirect Cost Rate Internally Audited***

- A Excess executive compensation unallowable per 48 CFR 31.205-6(p)
- B Unallowable costs of idle capacity per 48 CFR 31.205-17(c)
- C Lodging, meal, and mileage rates in excess of federal travel regulation unallowable per 48 CFR 31.205-46(a)(2).
- D Inadequate supporting documentation unallowable per 48 CFR 31.201-2(d).
- E Key person life insurance unallowable per 48 CFR 31.205-19(e)(2)(v).
- F Unallowable taxes and licenses per 48 CFR 31.205-41.
- G Amortization of goodwill unallowable per 48 CFR 31.205-49.
- H Costs of memberships in civic and community organization unallowable per 48 CFR 31.205-1(f)(7).
- I Public relations and advertising unallowable per 48 CFR 31.205-1.
- J Entertainment unallowable per 48 CFR 31.205-14.
- K Legal Costs in relation to litigation unallowable per 48 CFR 31.205-47(f)(5).
- L Interest unallowable per 48 CFR 31.205-20.
- M Contributions unallowable per 48 CFR 31.205-81.
- N Promotional Marketing unallowable per 48 CFR 31.205-1 and 31.205-38.
- O Unsupported direct selling costs, no documentation available to demonstrate and support "person to person" selling unallowable per 48 CFR 31.205-38(b)(5).
- P Directly associated cost to unallowable advertising, public relations and direct selling labor unallowable per 48 CFR 31.201-6(a).
- Q Auto Allowance payments of \$12,000 unallowable per 48 CFR 31.205-6(m)(2) and 31.201-2(d), documentation of mileage log not available and unable to support and show segregation of business and personal use. Associated costs for vehicle unallowable per 48 CFR 31.205-46(d) and 31.205-6(m)(2). Associated costs include Insurance (\$1,556), Maintenance (\$997), and Depreciation (\$664).
- R Bonus payments unsupported and not performance based unallowable per 48 CFR 31.205-6 and 2010 AASHTO Audit Guide, Chapter 7, Section 7.12 C
- S Labor Variance Account to show the uncompensated overtime labor adjustment.  
Labor Variance account is an offset account to balance to payroll.
- T Severance payment does not follow company's established severance policy, unallowable per 48 CFR 31.205-6(g).



Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>ESA Associates</b>		<b>193.82%</b>		
Senior Director III	\$78.13	\$151.42	\$70.45	\$300.00
Senior Director II	\$72.92	\$141.33	\$65.76	\$280.00
Senior Director I	\$69.01	\$133.76	\$62.23	\$265.00
Director III	\$62.50	\$121.14	\$56.36	\$240.00
Director II	\$58.59	\$113.57	\$52.84	\$225.00
Director I	\$54.69	\$106.00	\$49.32	\$210.00
Managing Associate III	\$53.39	\$103.47	\$48.14	\$205.00
Managing Associate II	\$49.48	\$95.90	\$44.62	\$190.00
Managing Associate I	\$45.57	\$88.33	\$41.10	\$175.00
Senior Associate III	\$44.27	\$85.81	\$39.92	\$170.00
Senior Associate II	\$41.67	\$80.76	\$37.58	\$160.00
Senior Associate I	\$39.06	\$75.71	\$35.23	\$150.00
Associate III	\$35.16	\$68.14	\$31.70	\$135.00
Associate II	\$32.55	\$63.09	\$29.36	\$125.00
Associate I	\$27.34	\$53.00	\$24.66	\$105.00
Project Technician I	\$31.25	\$60.57	\$28.18	\$120.00
Project Technician I	\$26.04	\$50.47	\$23.48	\$100.00
Project Technician I	\$22.14	\$42.90	\$19.96	\$85.00
<b>Notes :</b>				
1. Above listed rates have been provided by ESA Associates.				
2. ESA will use the same rates used in 2019 per email 3/9/20; effective through December 31, 2020.				
3. ESA is using our standard billing rates and with the staffing for this effort the average multiplier for the Project is 3.84.				
4. Other Direct Costs (ODC) will be billed for computer and all accessories.				

Title/Category	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>Ricondo</b>		<b>208.20%</b>		
Officer	\$101.14	\$210.58	\$42.28	\$354.00
Director	\$86.86	\$180.84	\$36.31	\$304.00
Managing Consultant	\$72.29	\$150.50	\$30.22	\$253.00
Senior Consultant	\$59.71	\$124.33	\$24.96	\$209.00
Consultant	\$47.71	\$99.34	\$19.94	\$167.00
Technical Specialist	\$38.57	\$80.31	\$16.12	\$135.00

Ricondo & Associates, Inc.

Multiplier Calculations based on 2017 Audited Overhead Rate (released May 21, 2018)

Direct Labor	1	(a)
Home Office Overhead Rate (OH)	2.082	(b)
Direct Labor + OH	3.082	(c) = (a)+(b)
Profit @ 15%	0.462	(d) = (c) x Profit %
<b>Multiplier</b>	<b>3.544</b>	(e) = (c)+(d)

**JACOBS ENGINEERING GROUP INC.  
JACOBS BUILDING AND INFRASTRUCTURE AMERICAS  
AND CH2M HILL CLIENT SECTORS**

**Summary of At-Office and At-Site Combined Rates  
For Fringe Benefits, Overhead and General & Administrative Expense  
in Accordance with the Federal Acquisition Regulation**

**For the Fiscal Year Ended September 28, 2018  
With Report of Independent Auditors**

THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION WHICH HAS COMMERCIAL AND/OR FINANCIAL VALUE. SUCH INFORMATION HAS NOT BEEN PUBLICLY DISCLOSED AND IS EXEMPT FROM DISCLOSURE UNDER THE FREEDOM OF INFORMATION ACT AND ALL OTHER SIMILAR LEGISLATION. JACOBS ENGINEERING GROUP INC. REQUESTS WRITTEN NOTICE BEFORE ANY PUBLIC DISCLOSURE IS MADE.

**JACOBS ENGINEERING GROUP INC.  
JACOBS BUILDING AND INFRASTRUCTURE AMERICAS  
AND CH2M HILL CLIENT SECTORS**

**Summary of At-Office and At-Site Combined Rates  
For Fringe Benefits, Overhead, and General & Administrative Expense  
in Accordance with the Federal Acquisition Regulation**

*For the Fiscal Year Ended September 28, 2018*

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<b>CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates</b>	

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# Cleary Government Services, LLC

## REPORT OF INDEPENDENT PUBLIC ACCOUNTANT

To: Board of Directors of Jacobs Engineering Group Inc.

Re: Indirect Cost Rates Prepared in Accordance with Part 31 of the Federal Acquisition Regulation

We have audited the accompanying Schedules of the Combined At-Office and At-Site Rates (Combined Indirect Cost Rates) for certain operating units of Jacobs Engineering Group Inc. (Jacobs) for the fiscal year ended September 28, 2018 prepared in accordance with Title 48, Code of Federal Regulations, Part 31 of the Federal Acquisition Regulation (FAR). The operating units included in the Combined Indirect Cost Rate Schedules are:

- Jacobs Buildings and Infrastructure Americas (B&IA):
  - BIA Design
  - BIA PMCM
- CH2M Hill Client Sectors:
  - National Governments
  - State and Local Governments
  - Private Clients

These schedules are the responsibility of Jacobs' management. Our responsibility is to express an opinion on these schedules based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States and also the standards applicable to financial audits contained in *Government Auditing Standards* (July 2011 Revision), issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the Schedules of the Combined Indirect Cost Rates are free of material misstatement. The audits include reviewing, on a test basis, evidence supporting the amounts and disclosures in the schedules and performing such other procedures as we considered necessary in the circumstances. Our audits also included assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall schedule presentation. We believe that our audits provide a reasonable basis for our opinion.

The aforementioned Schedules of the Combined Indirect Cost Rates were prepared on a basis of accounting practices as prescribed by Part 31 of the FAR as discussed in Note 2, and are not intended to be a presentation in conformity with accounting principles generally accepted in the United States.

In our opinion, the Schedules referred to above present fairly, in all material respects, the Combined Indirect Cost Rates of the two aforementioned Jacobs business units for the fiscal year ended September 28, 2018, calculated in accordance with Part 31 of the FAR.

In accordance with the *Government Auditing Standards*, we have also issued our report dated March 28, 2019 on our consideration of Jacobs' internal controls over financial reporting and our test of its compliance with applicable laws and regulations. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report.

## Cleary Government Services, LLC

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Individuals relying on this report must have an adequate understanding of Part 31 of the FAR. Therefore, this report is intended solely for the information of management and government agencies for use under contracts governed by the aforementioned regulations. It is not intended to be and should not be used by anyone other than the aforementioned parties nor should it be used for any other purpose.

*Cleary Government Services, LLC*

Chicago, Illinois  
March 28, 2019

**JACOBS ENGINEERING GROUP INC.**  
**JACOBS BUILDINGS AND INFRASTRUCTURE AMERICAS AND CH2M HILL CLIENT SECTORS**  
**AT-OFFICE COMBINED RATE**  
**For Fringe Benefits, Overhead and General & Administrative Expenses**  
**For the Fiscal Year Ended September 28, 2018**

	At-Office Net of Adjustments & Unallowable Cost				Subtotal	Cost Accounting Harmonization Adjustments	Hours	Combined At- Office
	BIA Design	BIA PMCM	CH2M Hill Client Sectors					
<b>Direct Labor Base</b>	\$ 277,516,481	\$ 14,762,718	\$ 413,137,034	\$ 705,416,234	\$ (4,821,534)	3	\$ 700,594,700	
<b>Fringe Benefits on Direct Labor*</b>								
Payroll Taxes	\$ 21,747,058	\$ 1,156,853	\$ 39,378,302	\$ 62,282,213	\$ (551,852)	3	\$ 61,730,361	
Paid-Time Off (Vacation, Holiday & Sick Pay)	30,307,470	1,812,231	59,318,080	91,235,781	(341,040)	3	90,894,721	
Group Insurance	13,965,414	742,902	39,094,844	53,803,160	(878,779)	3	53,124,380	
Workers Compensation	423,850	22,547	-	446,397	1,832	3	448,229	
General Liability & Other Insurance	4,593,774	244,370	-	4,838,143	7,512,593	4	12,350,737	
Thrift Plan - 401(k) Company Match	6,048,327	321,639	-	6,369,967	14,827,387	5	21,195,354	
Other Fringe Benefits	75,314	4,006	3,054,960	3,134,281	(2,922,985)	6	211,296	
	<u>\$ 77,159,207</u>	<u>\$ 4,104,547</u>	<u>\$ 140,844,167</u>	<u>\$ 222,107,821</u>	<u>\$ 17,847,357</u>		<u>\$ 239,955,278</u>	
<b>Overhead &amp; General and Administrative Expenses*</b>								
Indirect Labor & Related Fringes	\$ 72,352,539	\$ 1,484,290	\$ 55,104,318	\$ 128,921,147	\$ 6,579,187	3	\$ 135,500,335	
Bonus/Incentive Pay	3,511,182	122,601	22,013,551	25,647,314	(14,954,896)	5	10,692,618	
Other Employee Benefits	1,575,401	30,135	5,239,272	6,844,808	-	-	6,844,808	
Pension & Restricted Stock Amortization	6,150,668	142,388	-	6,293,057	2,862,279	6	9,155,335	
Intercompany Labor, Fringes & Other Expenses	-	-	14,287,859	14,287,859	(1,980,725)	3	12,287,133	
Severance & Separation Pay	588,888	-	-	588,888	-	-	588,888	
Office Occupancy Expense	43,682,784	1,811,189	6,480,763	51,974,737	(47,858)	3	51,926,879	
Personal Computer & Network Services	17,403,659	1,310,312	67,909	18,782,079	(2)	-	18,782,077	
Travel & Subsistence	2,757,542	61,880	6,278,447	9,097,868	-	-	9,097,868	
Taxes, Licenses & Insurance	1,807,801	65,256	9,701,102	11,374,159	(7,512,593)	4	3,861,565	
Outside Services	463,076	4,850	17,855,886	18,323,811	-	-	18,323,811	
Office Expenses, Postage, Repro & Other	883,983	48,527	2,178,908	3,111,418	(1,018)	-	3,110,400	
Temporary Staff	65,997	204	-	68,201	-	-	68,201	
Vehicle Expenses	978,299	31,866	-	1,009,985	-	-	1,009,985	
Project & Proposal Support Services	9,579,500	-	-	9,579,500	-	-	9,579,500	
Corporate & Intermediary Allocations	64,318,919	3,741,425	140,770,787	208,831,132	-	-	208,831,132	
Other Indirect Expenses	1,558,922	91,585	-	1,650,507	(4)	-	1,650,503	
<b>Total Overhead and G&amp;A Expenses*</b>	<u>\$ 227,479,119</u>	<u>\$ 8,928,308</u>	<u>\$ 279,958,802</u>	<u>\$ 616,364,229</u>	<u>\$ (15,055,430)</u>		<u>\$ 601,308,799</u>	
<b>Total Fringe &amp; Indirect Expenses*</b>	<u>\$ 304,638,326</u>	<u>\$ 13,032,855</u>	<u>\$ 420,802,969</u>	<u>\$ 738,472,150</u>	<u>\$ 2,791,927</u>		<u>\$ 741,264,077</u>	
<b>At-Office Indirect Cost Rates</b>	<u>109.77%</u>	<u>88.27%</u>	<u>101.86%</u>	<u>104.89%</u>			<u>105.80%</u>	

\* Net of Unallowable Costs

The accompanying notes are an integral part of this statement.

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**JACOBS ENGINEERING GROUP INC.**  
**JACOBS BUILDINGS AND INFRASTRUCTURE AMERICAS AND CH2M HILL CLIENT SECTORS**  
**AT-SITE COMBINED RATE**  
**For Fringe Benefits, Overhead and General & Administrative Expenses**  
**For the Fiscal Year Ended September 28, 2018**

	At-Site Net of Adjustments & Unallowable Cost				Cost Accounting Harmonization Adjustments	Notes	Combined At- Site
	BIA Design	BIA PMCM	CH2M Hill Client Sectors	Subtotal			
<b>Direct Labor Base</b>	\$ 97,843,138	\$ 79,193,140	\$ 42,170,531	\$ 219,006,808	\$ (492,153)	3	\$ 218,514,655
<b>Fringe Benefits on Direct Labor*</b>							
Payroll Taxes	\$ 7,851,621	\$ 8,205,821	\$ 4,019,499	\$ 17,876,942	\$ (58,309)	3	\$ 17,820,632
Paid-Time Off (Vacation, Holiday & Sick Pay)	10,863,570	8,648,652	6,054,825	25,366,847	(34,811)	3	25,332,036
Group Insurance	4,913,879	3,985,222	3,990,565	12,889,466	(89,288)	3	12,820,181
Workers Compensation	149,130	120,951	-	270,081	187	3	270,268
General Liability & Other Insurance	1,818,302	1,310,896	-	2,927,199	788,840	4	3,694,039
Thrift Plan - 401(k) Company Match	2,127,378	1,725,403	-	3,852,780	1,513,490	6	5,366,270
Other Fringe Benefits	28,489	21,492	311,832	359,823	(288,361)	0	81,462
	<u>\$ 27,148,179</u>	<u>\$ 22,018,438</u>	<u>\$ 14,376,921</u>	<u>\$ 63,543,138</u>	<u>\$ 1,821,750</u>		<u>\$ 65,364,888</u>
<b>Overhead &amp; General and Administrative Expenses*</b>							
Indirect Labor & Related Fringes	\$ 25,456,971	\$ 7,855,040	\$ 5,824,716	\$ 38,936,728	\$ 871,564	3	\$ 39,808,290
Bonus/Incentive Pay	1,235,389	657,882	2,247,010	4,140,081	(1,528,485)	6	2,613,596
Other Employee Benefits	544,784	157,710	534,793	1,237,287	-		1,237,287
Pension & Restricted Stock Amortization	2,164,090	783,828	-	2,927,917	292,184	6	3,220,082
Intercompany Labor, Fringes & Other Expenses	-	-	1,200,132	1,200,132	(199,190)	3	1,000,942
Severance & Separation Pay	207,121	-	-	207,121	-		207,121
Office Occupancy Expense	1,428,201	153,079	135,566	1,716,846	47,859		1,764,704
Personal Computer & Network Services	68,385	8,060	8,932	83,378	-	2	83,380
Travel & Subsistence	970,231	331,948	640,866	1,943,043	-		1,943,043
Taxes, Licenses & Insurance	256,749	90,820	990,230	1,337,899	(788,840)	4	570,759
Outside Services	146,889	25,853	2,078,866	2,251,708	-		2,251,708
Office Expenses, Postage, Repro & Other	35,770	9,490	188,163	233,423	1,018		234,441
Temporary Staff	23,221	1,098	-	24,317	-		24,317
Vehicle Expenses	39,384	19,842	-	59,206	-		59,206
Project & Proposal Support Services	3,370,511	-	-	3,370,511	-		3,370,511
Corporate & Intermediate Allocations	22,830,372	20,070,503	10,056,990	52,757,864	-		52,757,864
Other Indirect Expenses	229,974	74,488	-	304,462	-		304,464
<b>Total Overhead and G&amp;A Expenses*</b>	<u>\$ 58,808,003</u>	<u>\$ 30,218,335</u>	<u>\$ 23,704,263</u>	<u>\$ 112,731,501</u>	<u>\$ (1,479,906)</u>		<u>\$ 111,251,595</u>
<b>Total Fringe &amp; Indirect Expenses*</b>	<u>\$ 85,956,182</u>	<u>\$ 52,237,773</u>	<u>\$ 38,080,784</u>	<u>\$ 176,274,739</u>	<u>\$ 341,844</u>		<u>\$ 176,616,583</u>
<b>At-Site Indirect Cost Rates</b>	<u>88.03%</u>	<u>65.96%</u>	<u>90.30%</u>	<u>80.49%</u>			<u>80.83%</u>

\* Net of Unallowable Costs

The accompanying notes are an integral part of this statement.

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**JACOBS ENGINEERING GROUP INC.**  
**JACOBS BUILDINGS AND INFRASTRUCTURE AMERICAS**  
**AND CH2M HILL CLIENT SECTOR**  
**Notes to Statements of the Fringe Benefits, Overhead and General &**  
**Administrative Expenses for the Combined At-Office and At-Site Rates**  
**for the Fiscal Year Ended September 28, 2018**

**1. Acquisition of CH2M Hill**

On December 15, 2017, Jacobs' completed the acquisition of CH2M HILL Companies, Ltd. (CH2M), an international provider of engineering, construction, and technical services, by acquiring 100% of the outstanding shares of CH2M's common and preferred stock. The combined Companies had annual revenues of approximately \$15 billion in FY 2018. The acquisition enhances Jacobs' position in the infrastructure, water and transportation markets among other markets. Jacobs and CH2M operated largely as separate, stand-alone companies during FY 2018. That is, each of the Companies' respective cost accounting practices and related CAS Disclosure Statements remained in effect during FY 2018. The combination of Jacobs and CH2M already has and will continue to yield significant operational and administrative efficiencies and savings through reductions in personnel, the closure and consolidation of redundant offices, etc.

As a result of the acquisition, CH2M is now a wholly-owned subsidiary of Jacobs. The development of the new Buildings and Infrastructure Americas (BIA) operating model and organization structure has been finalized. Management has completed the process of harmonizing the cost accounting practices and finalizing the FY 2019 indirect rate structure. As of September 29, 2018, the CH2M staff and projects are integrated into Jacobs' project accounting systems and indirect rate structure; allowing all of the Jacobs BIA employees to charge projects contracted by either firm. The final step of the accounting consolidation occurred on January 1, 2019 when all CH2M legacy personnel payroll was transferred to Jacobs' payroll system.

**2. Basis of the Combined Indirect Rates**

As noted above, the process of combining and integrating the operations and businesses of Jacobs and CH2M began in conjunction with the acquisition. Under the new organization structure planned for FY 2019, the operating units of Jacobs' Buildings and Infrastructure Americas (B&IA) business, BIA Design and BIA PMCM will be combined with CH2M Hill Client Sectors' National Governments, State and Local Governments, and Private Client businesses. The combined businesses will operate under the Buildings and Infrastructure Americas business unit.

Accordingly, for purposes of the Combined At-Office and At-Site Statements of the Fringe Benefits, Overhead and General & Administrative Expenses (Combined Indirect Rates), the operating results of the aforementioned businesses have been combined, net of unallowable costs. As explained below, certain adjustments and reclasses have been made in the presentation of the Combined Indirect Rates to bring consistency to the cost accounting practices for the combined Jacobs and CH2M Hill businesses.

The Audit Reports, Indirect Rate Schedules and Footnotes in the Reports for Buildings and Infrastructure Americas Design (BIA Design), Buildings and Infrastructure Americas Project Management/Construction Management (BIA PMCM) and CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates all dated March 28, 2019 are incorporated by reference herein in their entirety.

**3. Reclass of Project Accounting and Contract Administration Costs**

Under Jacobs' historical cost accounting practice and in accordance with its CAS Disclosure Statement, the costs of the project accounting and contract administration activities and functions in support of customer projects was treated as an indirect expense. On the other hand, CH2M Hill had treated these costs as direct costs when identifiable with a customer project. CH2M Hill is adopting Jacobs' cost accounting practice in FY 2019, and so, in the attached Combined At-Office and At-Site Schedules, CH2M Hill has reclassified the appropriate project accounting and contract administration Direct Labor that is specifically applicable to just the CH2M Hill FAR Compliant Rates. Accordingly, in the At-Office Indirect Rate, CH2M Hill has reclassified (\$4.8M) of Direct Labor and (\$1.8M) of Fringe Benefits for a total of \$6.6M to Indirect Labor and Fringes. Similarly, in the At-Site Indirect

**JACOBS ENGINEERING GROUP INC.  
JACOBS BUILDINGS AND INFRASTRUCTURE AMERICAS  
AND CH2M HILL CLIENT SECTOR**  
**Notes to Statements of the Fringe Benefits, Overhead and General &  
Administrative Expenses for the Combined At-Office and At-Site Rates  
for the Fiscal Year Ended September 28, 2018**

**3. Reclass of Project Accounting and Contract Administration Costs, continued**

Rate, CH2M Hill has reclassified (\$492k) of Direct Labor and (\$179k) of fringe benefits for a total of \$671k to Indirect Labor and Fringes. Of the Direct Labor and Fringes being reclassified, (\$1.9M) of the At-Office costs and (\$199k) of the At-Site Costs relates to CH2M Hill entities that are not included in the FAR Compliant rates, and as such, CH2M Hill is eliminating this labor and fringes from its claimed Overhead.

**4. General, Professional Liability and Other Insurance Costs**

In accordance with Jacobs' historical cost accounting practice and its CAS Disclosure Statement, the costs of General, Professional Liability and Other Insurance Costs (e.g., executive protection, auto, etc.) are included in Fringe Benefits. CH2M Hill's cost accounting practice was to treat these insurance costs as G&A costs. CH2M Hill is adopting Jacobs' cost accounting practice in FY 2019 for insurance costs, and so, in the attached Combined At-Office and At-Site Schedules, CH2M Hill has reclassified its insurance costs of \$7.5M and \$766k in the At-Office and At-Site Indirect rates, respectively, from G&A to Fringe Benefits.

**5. 401(k) Company Match**

Jacobs' practice is to include the cost of the 401(k) Company Match as Fringe Benefits. CH2M's historical practice was to treat the 401(k) Company Match as a G&A cost for indirect rate presentation purposes. Again, CH2M Hill is adopting Jacobs' method of accounting for the 401(k) Company Match costs, and accordingly, in the attached Combined At-Office and At-Site Schedules, CH2M Hill has reclassified its 401(k) Company Match costs of \$14.9M and \$1.5M in the At-Office and At-Site Indirect rates, respectively, from G&A to Fringe Benefits.

**6. Pension Costs**

Jacobs' historical practice and in accordance with its CAS Disclosure Statement, is to include the cost of Pensions as a G&A Cost. CH2M's historical practice was to treat Pension Costs as Fringe Benefits. CH2M Hill is adopting Jacobs' method of accounting for Pension Costs, and accordingly, in the attached Combined At-Office and At-Site Schedules, CH2M Hill has reclassified its Pension Costs of \$2.9M and \$292k in the At-Office and At-Site Indirect rates, respectively, from Fringe Benefits to G&A.

**JACOBS ENGINEERING GROUP INC.  
JACOBS BUILDING AND INFRASTRUCTURE AMERICAS  
AND CH2M HILL CLIENT SECTORS**

**APPENDIX**

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**Summary of At-Office and At-Site Rates  
and  
Statements of Fringe Benefit Expense and  
General & Administrative Expense in Accordance with the  
Federal Acquisition Regulation**

**Buildings and Infrastructure Americas Design**  
A Business Unit of Jacobs Engineering Group Inc.

*For the Fiscal Year Ended September 28, 2018  
With Report of Independent Auditors*

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**Summary of At-Office and At-Site Rates  
and  
Statements of Fringe Benefit Expense and  
General & Administrative Expense in Accordance with the  
Federal Acquisition Regulation**

**Buildings and Infrastructure Americas Design  
A Business Unit of Jacobs Engineering Group Inc.**

*For the Fiscal Year Ended September 28, 2018*

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# Cleary Government Services, LLC

## REPORT OF INDEPENDENT PUBLIC ACCOUNTANT

To: Board of Directors of Jacobs Engineering Group Inc.

Re: Indirect Cost Rates Prepared in Accordance with Part 31 of the Federal Acquisition Regulation

We have audited the accompanying Summary of At-Office and At-Site Rates, Statement of Fringe Benefit Expense and Statement of General & Administrative Expense (Schedules of the Indirect Cost Rates) of Buildings and Infrastructure Americas (BIA) Design, a business unit of Jacobs Engineering Group Inc., for the twelve months ended September 28, 2018 prepared in accordance with Title 48, Code of Federal Regulations, Part 31 of the Federal Acquisition Regulation (FAR). BIA Design is a wholly-owned business unit of Jacobs Engineering Group Inc. These schedules are the responsibility of BIA Design's management. Our responsibility is to express an opinion on these schedules based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States and also the standards applicable to financial audits contained in *Government Auditing Standards* (July 2011 Revision), issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Schedules of the Indirect Cost Rates are free of material misstatement. An audit includes reviewing, on a test basis, evidence supporting the amounts and disclosures in the schedules and performing such other procedures as we considered necessary in the circumstances. Our audit also included assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

The aforementioned Schedules of the Indirect Cost Rates were prepared on a basis of accounting practices as prescribed by Part 31 of the FAR as discussed in Note 2, and are not intended to be a presentation in conformity with accounting principles generally accepted in the United States.

In our opinion, the Schedules referred to above present fairly, in all material respects, the Indirect Cost Rates of BIA Design for the twelve months ended September 28, 2018, calculated in accordance with Part 31 of the FAR.

In accordance with the *Government Auditing Standards*, we have also issued our report dated March 28, 2019 on our consideration of BIA Design's internal controls over financial reporting and our test of its compliance with applicable laws and regulations. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report.

Individuals relying on this report must have an adequate understanding of Part 31 of the FAR. Therefore, this report is intended solely for the information of management and government agencies for use under contracts governed by the aforementioned regulations. It is not intended to be and should not be used by anyone other than the aforementioned parties nor should it be used for any other purpose.



Chicago, Illinois  
March 28, 2019

**Buildings and Infrastructure Americas Design  
A Business Unit of Jacobs Engineering Group Inc.  
Summary of At-Office and At-Site Rates  
For the Fiscal Year Ended September 28, 2018**

The At-Office and At-Site rates relative to the audited Fringe Benefit Expense and General & Administrative Expense Statements were computed in accordance with Part 31 of the Federal Acquisition Regulation (FAR).

**Buildings and Infrastructure Americas Design**

**At-Office**

**Indirect Rates**

At-Site General & Administrative Rate  
Use & Occupancy Rate  
Fringe Benefit Rate  
**Combined Rate**

<b>Direct Labor Base</b>
60.23%
21.74%
27.80%
<b>109.77%</b>

**At-Site**

At-Site General & Administrative Rate  
Fringe Benefit Rate  
**Combined Rate**

60.23%
27.80%
<b>88.03%</b>

See the following statements for detailed computations of the above Fringe Benefit Expense and General & Administrative Expense rates and the applicable explanatory notes.

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**Buildings and Infrastructure Americas Design**  
**A Business Unit of Jacobs Engineering Group Inc.**  
**Statement of Fringe Benefit Expense**  
**For the Fiscal Year Ended September 28, 2018**

	<b>BIA DESIGN DIRECT FRINGE BENEFIT EXPENSE</b>
	(Note 6)
<b><u>COSTS, NET OF ADJUSTMENTS</u></b>	
PAID TIME OFF	\$ 31,040,225
HOLIDAY	9,077,243
BEREAVEMENT LEAVE	853,572
FICA	27,614,875
SUI	1,621,951
FUI	161,853
THRIFT PLAN	8,173,705
GROUP INSURANCE	18,879,093
WORKERS' COMPENSATION	572,980
GENERAL LIABILITY	6,210,076
EMPLOYEE ASSISTANCE PLAN	101,813
<b>TOTAL ALLOCATED FRINGE BENEFITS</b>	<b>\$ 104,307,386</b>
 <b>TOTAL FRINGE LABOR BASE</b>	 <b>\$ 375,159,619</b>
 <b>COMPANY-WIDE FRINGE BENEFIT RATE</b>	 <b>27.80%</b>

The accompanying notes are an integral part of this statement.

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**Buildings and Infrastructure Americas Design**  
**A Business Unit of Jacobs Engineering Group Inc.**  
**Statement of General & Administrative Expense**  
**For the Fiscal Year Ended September 28, 2018**

	TOTAL INCURRED G&A COSTS	TOTAL FAR UNALLOWABLE COST ADJUSTMENTS (Note 2)	NOTES	NET CLAIMED G&A COSTS	GENERAL & ADMINISTRATIVE RATE APPLIED TO AT-SITE & AT-OFFICE PROJECTS	USE & OCCUPANCY RATE (AT- OFFICE)
<b>INDIRECT LABOR</b>	\$ 77,213,042	\$ (1,098,340)	4	\$ 76,114,702	\$ 76,114,702	\$ -
<b>INDIRECT EXPENSES</b>						
OFFICE OCCUPANCY EXPENSES	\$ 45,254,285	\$ (143,300)		\$ 45,110,985	\$ 5,487,363	\$ 39,623,622
FRINGE BENEFITS	21,694,808	-	5	21,694,808	21,694,808	-
PERSONAL COMPUTER AND NETWORK SERVICES	17,472,383	(139)		17,472,244	262,747	17,209,497
PENSION & RESTRICTED STOCK AMORTIZATION	8,314,758	-	6	8,314,758	8,314,758	-
TRAVEL & BUSINESS MEALS	5,032,349	(1,304,576)	7	3,727,773	3,727,773	-
EMPLOYEE TRAINING & DUES	2,020,076	(433,772)	8	1,586,304	1,586,304	-
OUTSIDE SERVICES	1,069,505	(459,540)	9	609,965	564,371	45,594
BUSINESS LICENSE & TAXES	2,853,438	(988,888)	10	1,864,550	986,469	878,081
VEHICLE EXPENSES	1,047,162	(29,499)		1,017,663	151,243	866,420
OFFICE AND OTHER SUPPLIES	734,931	(117,759)		617,172	4,935	612,237
RECRUITING & RELOCATION	342,095	(39,246)	11	302,849	275,751	27,098
REPRODUCTION	184,152	(14,071)		170,081	-	170,081
POSTAGE & FREIGHT	133,038	(538)		132,500	132,500	-
TEMPORARY STAFF	89,218	-		89,218	89,218	-
PUBLIC RELATIONS & ADVERTISING	55,695	(47,023)	12	8,672	8,672	-
OTHER	4,049,525	(2,269,301)	13	1,780,224	874,924	905,300
<b>SUBTOTAL INDIRECT EXPENSES</b>	<b>\$ 187,560,460</b>	<b>\$ (6,945,992)</b>		<b>\$ 180,614,468</b>	<b>\$ 120,276,538</b>	<b>\$ 60,337,930</b>
<b>OTHER INDIRECT EXPENSES</b>						
PROJECT SUPPORT SERVICES	\$ 13,639,656	\$ (689,646)	14	\$ 12,950,010	\$ 12,950,010	\$ -
BONUS PAYMENTS	4,746,551	-	15	4,746,551	4,746,551	-
SEVERANCE & SEPARATION PAYMENTS	795,789	-	16	795,789	795,789	-
EMPLOYEE STOCK PURCHASE PLAN	231,012	-		231,012	231,012	-
<b>SUBTOTAL OTHER INDIRECT EXPENSES</b>	<b>\$ 19,413,008</b>	<b>\$ (689,646)</b>		<b>\$ 18,723,362</b>	<b>\$ 18,723,362</b>	<b>\$ -</b>
<b>ALLOCATIONS</b>						
CORPORATE ALLOCATIONS	96,708,784	(9,759,493)	3, 4	86,949,291	86,949,291	-
<b>SUBTOTAL ALLOCATIONS</b>	<b>\$ 96,708,784</b>	<b>\$ (9,759,493)</b>		<b>\$ 86,949,291</b>	<b>\$ 86,949,291</b>	<b>\$ -</b>
<b>TOTAL G&amp;A EXPENSES</b>	<b>\$ 303,682,252</b>	<b>\$ (17,395,131)</b>		<b>\$ 286,287,121</b>	<b>\$ 225,949,191</b>	<b>\$ 60,337,930</b>

<b>DIRECT LABOR (TOTAL AND AT-OFFICE)</b>	<b>\$ 375,159,619</b>	<b>\$ 277,516,481</b>
<b>BUILDINGS &amp; INFRASTRUCTURE AMERICAS DESIGN INDIRECT COST RATES</b>	<b>60.23%</b>	<b>21.74%</b>
<b>COMPANY-WIDE FRINGE BENEFIT RATE</b>	<b>27.80%</b>	<b>27.80%</b>
<b>AT-SITE GENERAL &amp; ADMINISTRATIVE RATE (Using Direct Labor \$'s as the Base)</b>	<b>88.03%</b>	
<b>AT-OFFICE GENERAL &amp; ADMINISTRATIVE RATE (Using Direct Labor \$'s as the Base)</b>		<b>109.77%</b>

The accompanying notes are an integral part of this statement.

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**Buildings and Infrastructure Americas Design**  
**A Business Unit of Jacobs Engineering Group Inc.**  
**Notes to Statements of Fringe Benefit Expense**  
**and General & Administrative Expense**  
**for the Fiscal Year Ended September 28, 2018**

**1. Business and Basis of Presentation**

The financial information presented in the accompanying Statements of Fringe Benefit Expense and General & Administrative Expense includes the expenses of Buildings and Infrastructure Americas (BIA) Design and Jacobs Civil Consultants Inc. (collectively the Company) for the fiscal year ended September 28, 2018. Jacobs Civil Consultants Inc. was formerly known as Sverdrup & Parcel Consultants, Inc. The Fiscal Year (FY) 2018 company-wide indirect rates presented herein include the operations and results for BIA Design (the Company or BIA Design).

The Company is a business unit of Jacobs Engineering Group Inc. (the Parent Company), and the Parent Company is a publicly traded company on the NYSE. BIA Design provides strategic planning, architecture, engineering, construction management, program management, and design-build services for a diverse client base encompassing both public and private sectors. Major markets include defense, government, healthcare, research and education and correctional facilities, office and corporate headquarters, aviation facilities, mission-critical facilities, municipal and civic facilities, retail, mixed-use and commercial centers and recreation complexes.

The Parent Company was originally incorporated in 1957, and its clients include federal, state, local, and foreign government agencies, as well as numerous commercial entities. Revenues are derived from billings for professional services; project services; process; scientific and systems consulting services; operations and maintenance services; and construction services.

**2. Basis of Accounting and Description of Accounting Systems**

The Company's policy is to prepare the accompanying Statements of Fringe Benefit Expense and General & Administrative Expense on the basis of accounting practices prescribed by Chapter 1, Part 31 and Chapter 99 of the Federal Acquisition Regulation (FAR). The aforementioned statements are not intended to present the financial position or the results of operations of the Company in conformity with accounting principles generally accepted in the United States. The Company maintains its books of accounts using the Accrual Method of accounting.

The Company uses a multi-step process to identify and quantify unallowable costs as defined in FAR Part 31. First, the Company identifies certain expense accounts, expenditure types in the general ledger and certain indirect projects as totally unallowable (e.g., interest expense, bad debts expense, etc.). For certain other expense accounts that are likely to contain unallowable costs, the Company either reviews all of the significant transactions in the account or it reviews a sample of the transactions in the account. For those expense accounts that are sampled, the Company extrapolates the results of the sample to the related expense account population. The larger unallowable amounts generated by this process are discussed below. In addition, the Company voluntarily excludes certain other costs from the indirect cost pools, and it uses estimates to determine the amount of certain other unallowable costs.

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**for the Fiscal Year Ended September 28, 2018**

**2. Basis of Accounting and Description of Accounting Systems (continued)**

The Company maintains a job cost accounting system based on actual costs for recording and accumulating costs incurred under its contracts. Each project is assigned a unique job number so that costs may be properly segregated and accumulated in the Company's job cost accounting system. Employee labor costs are charged to jobs using the employee's actual hourly pay rate at the time that the labor is incurred. For salaried employees, their actual hourly pay rate for job costing purposes is based on their annual salary divided by 2,080 hours per year.

**Direct and Indirect Costs** - Costs are specifically identified and recorded separately in the formal financial accounting records as Direct Costs and Indirect Costs as established in accordance with the Company's disclosed practices. Direct costs are those costs that can be specifically identified to a customer project, work activity or final cost objective. Indirect costs are those costs that cannot be specifically identified with a single customer project, direct work activity or final cost objective. Contract/ Purchased labor is treated as Other Direct Costs (ODC's).

Nonsalary Direct Project Costs sometimes referred to as ODC's are consistently charged to all projects regardless of the recoverability from the customer.

**Paid Time Off** - The Company accrues Paid Time Off (PTO) based on the years of service for each employee. PTO may be used by employees for a variety of reasons, including (but not limited to) vacation, illness, or accident, bereavement or personal time off. All requested PTO is subject to supervisory approval.

PTO benefits are paid based on the employee's base pay rate at the time that the absence occurs and does not include any special forms of compensation such as incentives, commissions, bonuses or shift differentials. Employees receive pay for all accrued but unused PTO hours upon separation from the Company.

**Overtime Compensation** - The Company's policy on pay practices and overtime pay eligibility compliance is established to appropriately pay employees in accordance with their classifications as defined by the Fair Labor Standards Act, 29 C.F.R. § 541.602 (FLSA). This policy discusses federal regulations regarding overtime. State laws may be more restrictive than federal laws. Local Human Resources representatives provide details regarding regulations for specific states. In certain circumstances, exempt employees may receive additional compensation for work in excess of their regularly scheduled hours. The employee's immediate supervisor is responsible for authorizing and supervising any overtime work performed.

**Uncompensated Overtime** - The Company's policy regarding overtime is to compensate NONEXEMPT employees for authorized additional hours of work in accordance with the FLSA. BIA Design's cost accounting practice is that salaried (Exempt) employees' record all hours worked. EXEMPT employees now record all hours worked including any authorized uncompensated overtime. Each hour recorded, either compensated or uncompensated, is charged to cost objectives at the employee's actual rate of pay based on a standard 40 hour workweek. The variance between the employee's pay rate for the week and the value of the hours charged at the actual labor rate was credited to the At-Site G&A pool resulting in a credit of approximately \$279,915.

**Project Support Functions** - BIA Design also treats certain activities related to its Manager of Projects, Project Controls and Contracts Management functions as indirect, which is consistent with the Company's disclosed practice.

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**for the Fiscal Year Ended September 28, 2018**

**2. Basis of Accounting and Description of Accounting Systems (continued)**

Depreciation - Property, equipment and improvements are recorded at cost. Depreciation and amortization is computed primarily by using the straight-line method over the estimated useful lives of the assets. The cost of leasehold improvements and equipment is amortized using the straight-line method over the lesser of the estimated useful life of the asset or the remaining term of the related lease. Estimated useful lives range from 20 to 40 years for buildings, from 3 to 15 years for equipment and from 3 to 7 years for computers and software.

The Company's method of estimating costs for pricing purposes during the proposal process is consistent with the accumulation and reporting of costs under its job cost accounting system.

The accompanying Statement of General & Administrative Expenses includes Jacobs' Residual Pool that was allocated using the three-factor formula (i.e., average of revenues, payroll \$'s and net fixed assets).

**3. Allocation Methods**

The Company has established two indirect rates: (1) an At-Office Rate that is applied to work performed in Jacobs-provided facilities, and (2) an At-Site Rate that is applied to work performed at non-Jacobs (i.e., customer) provided facilities. The allocation base for the At-Site G&A rate includes all Professional Services and all Field Staff Direct Labor including any labor premiums. The allocation base for the At-Office G&A rate includes At-Office Professional Services and At-Office Field Staff Direct Labor including any labor premiums. Contract labor is not included in the direct labor base but is instead recorded as Other Direct Costs (ODC's).

The Company uses the same fringe benefit rate for both its At-Office and At-Site direct labor and allocates fringe benefit expenses based upon total payroll dollars (including premiums and excluding incentive compensation).

The Company receives an allocation of costs from the Parent Company that includes salaries, related fringe benefits and general and administrative expenses. The G&A expenses include the costs of certain executive management, legal, accounting, treasury, information systems, human resources, health and safety, and other corporate functions. These costs are allocated to the Company based upon a three-tier method, which allocates costs that are: (1) directly attributable to the Company; (2) separately associated with the Company that are allocated based upon appropriate bases that use direct labor dollars, total payroll dollars, revenues, or a combination thereof; and, (3) amounts remaining after the first two tiers, allocated based upon a two-factor formula that is computed using Professional Service and Field Staff payroll dollars and revenues.

The allocations of the Parent Company's Corporate Home Office costs have been properly adjusted to reflect FAR Part 31 disallowances. These amounts were determined by the multi-step process described above in Note 2. The net allowable costs for each of the Corporate Home Office cost pools are then allocated using the methodologies described above.

**Buildings and Infrastructure Americas Design**  
A Business Unit of Jacobs Engineering Group Inc.  
**Notes to Statements of Fringe Benefit Expense  
and General & Administrative Expense  
for the Fiscal Year Ended September 28, 2018**

**4. Executive Compensation**

The Company performed a compensation analysis to review and evaluate its executive and employee compensation. The adjustment to indirect labor includes an adjustment of \$1,098,340 for excess executive compensation based on application of a weighted average benchmark of \$521,750. As part of this analysis, senior executives and employees were also benchmarked against surveys in which the Parent Company participated. The overall result of the compensation analysis demonstrated the reasonableness of the Company's compensation with the exception of the aforementioned disallowance. In addition, an excess compensation disallowance of \$3,928,162, is reflected as a part of the total Corporate Office Allocation based on the weighted average benchmark disallowance in accordance with FAR 31.205-6.

**5. Fringe Benefits**

The Parent Company calculates a Company-wide fringe benefit rate that is applied to its US business units and wholly-owned subsidiaries. Fringe benefit costs include an adjustment of the indirect fringe benefit expense recorded in the general ledger at the standard fringe rate of 31.5% to the FY 2018 actual fringe rate of 27.80%.

**6. Restricted Stock and Pension Plan**

The Parent company maintains a restricted stock plan as part of compensation in accordance with FAR 31.205-6. The Company's share of the restricted stock plan included in the G&A Pool is \$1,564,169 and \$133,574 included in Corporate Allocations. The Company also provides, for certain employees from previously-acquired companies, a combined-defined benefit pension plan that meets the requirements of FAR 31.205-6(j). The Company's share of the pension plan included in the G&A Pool is \$6,750,589 as well as \$96,194 included in Corporate Allocations.

**7. Travel & Business Meals**

Based on a review of travel and related costs, BIA Design disallowed \$1,304,576 in accordance with FAR 31.205-46.

**8. Employee Training & Dues**

The adjustment amount of \$433,772 represents dues that are unallowable in accordance with FAR 31.205-14.

**9. Outside Services**

The adjustment of \$459,540 represents professional service costs disallowed in accordance with FAR 31.205-33.

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**for the Fiscal Year Ended September 28, 2018**

**10. Business License & Taxes**

The adjustment of \$988,888 represents taxes disallowed in accordance with FAR 31.201-4.

**11. Recruiting & Relocation**

The relocation adjustment of \$39,246 represents employee relocation expenses that are considered unallowable in accordance with FAR 31.205-35.

**12. Public Relations & Advertising**

The unallowable cost adjustment of \$47,023 represents unallowable public relations and advertising costs per FAR 31.205-1.

**13. Other**

Included in the other adjustment of \$2,269,301 are the following FY 208 actual unallowable costs:

Internal Promotion (FAR 31.2 various)	\$ 1,075,424
External Promotion Meals, Entertainment & Other (FAR 31.2 various)	\$ 616,638
Contributions (FAR 31.205-8)	\$ 383,176
Goodwill (FAR 31.205-49)	<u>\$ 50,004</u>
	<u>\$ 2,125,242*</u>

\*The remaining balance of the disallowed amount is determined using the methodology discussed in Note 2.

**14. Project Support Services**

Included in the other adjustment of \$689,646 are the following FY 2018 actual unallowable costs:

Travel & Related Cost (FAR 31.205-46)	\$236,121
Internal & External Promotion & Entertainment (31.2 Various)	\$97,444
Bid & Proposal (FAR 31.205-18)	<u>\$57,029</u>
	<u>\$390,594*</u>

\*The remaining balance of the disallowed amount is determined using the methodology discussed in Note 2.

**15. Incentive Compensation - Bonuses**

All awards are paid in full within 90 days of the close of the applicable fiscal year, except (i) Executive incentives that have not been certified by the Compensation Committee of the Board of Directors as required, which are paid as soon as practicable following such certification and (ii) those bonuses deferred pursuant to the terms of the Company's sponsored deferred compensation plan for which a Participant is eligible, which are also paid pursuant to the terms of the plan.

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**for the Fiscal Year Ended September 28, 2018**

**16. Severance & Separation Payments**

The Company's Voluntary Separation Program (the Program) for leadership-level participants in the Management Incentive Plan resulted in \$42,411 of costs in FY 2018. The Program had specific eligibility requirements included in the severance package. The objectives of the Program were to improve the Company's cost structure and streamline leadership levels, while maintaining business performance and a strong leadership bench.

**17. Direct Cost Accounts include the following but are not limited to:**

The major types of other direct costs include but are not limited to:

- Travel, subsistence and relocation
- Subcontracts
- Contract specific training and employee development
- Temporary, contract and other purchased labor/services
- Contract specific equipment rental/leases
- Consultants Telephone/fax/communications
- Shipping charges & postage
- Outside/specialty reproduction costs
- Craft labor fringe costs
- Special taxes

The Company's internal controls include segregation of duties between accounts payable job functions, performance of a pre-audit on certain accounts/expenditure types, accounts payable coding training and control of general and administrative costs through a rigorous budget vs. actual review process to avert the inclusion of direct costs in the indirect cost pool.

**18. Related Party Transactions**

No adjustments or disclosures are required per FAR 31.205-26(e) or FAR 31.205-36(b)(3).

**19. Acquisition of CH2M HILL**

On December 15, 2017, Jacobs' completed the acquisition of CH2M HILL Companies, Ltd. (CH2M), an international provider of engineering, construction, and technical services, by acquiring 100% of the outstanding shares of CH2M's common and preferred stock. The combined Companies had annual revenues of approximately \$15 billion in FY 2018. The acquisition enhances Jacobs' position in the infrastructure, water and transportation markets among other markets. Jacobs and CH2M operated largely as separate, stand-alone companies during FY 2018. That is, each of the Companies' respective cost accounting practices and related CAS Disclosure Statements remained in effect during FY 2018. The combination of Jacobs and CH2M already has and will continue to yield significant operational and administrative efficiencies and savings through reductions in personnel, the closure and consolidation of redundant offices, etc.

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**Buildings and Infrastructure Americas Design**  
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**Notes to Statements of Fringe Benefit Expense**  
**and General & Administrative Expense**  
**for the Fiscal Year Ended September 28, 2018**

**19. Acquisition of CH2M HILL (continued)**

As a result of the acquisition, CH2M is now a wholly-owned subsidiary of Jacobs. The development of the new Buildings and Infrastructure Americas (BIA) operating model and organization structure has been finalized. Management has completed the process of harmonizing the cost accounting practices and finalizing the FY 2019 indirect rate structure. As of September 29, 2018, the CH2M staff and projects are integrated into Jacobs' project accounting systems and indirect rate structure; allowing all of the Jacobs BIA employees to charge projects contracted by either firm. The final step of the accounting consolidation occurred on January 1, 2019 when all CH2M legacy personnel payroll was transferred to Jacobs' payroll system.

**20. Restructuring and Integration Costs**

In connection with the acquisition of CH2M, both Jacobs and CH2M incurred costs to restructure and integrate their operations and businesses. These costs include severance, office lease termination costs, office relocation and closure costs, certain consulting costs, etc. which Jacobs analyzed to determine the allowable costs under FAR Part 31. Accordingly, the Company incurred restructuring and integration costs in FY 2018, and it included the allowable portion of these costs, \$5.3M, in its FY 2018 indirect rates. Similarly, the Company received allocations of restructuring and integration costs from the Jacobs Corporate Home Office in FY 2018 of \$6.1M. The unallowable costs associated with the acquisition have been properly removed from the Company's claimed costs. For US Department of Defense (DoD) contracting purposes only, the Company will submit a proposal to the Federal Government for certain Restructuring related costs and then recover those costs on Federal DoD contracts in accordance with the provisions of DFARS 231.205-70.

**21. Agreement to Sell Energy, Chemicals and Resources Business**

Jacobs announced that it has entered into an agreement to sell its Energy, Chemicals and Resources (ECR) business to WorleyParsons Limited for \$3.3 billion. Subject to the satisfaction of the remaining conditions to closing, Jacobs will then, be focused solely on its two higher growth, higher margin lines of business – Aerospace, Technology & Nuclear (ATN) and Buildings, Infrastructure & Advanced Facilities (BIAF).

**22. Management's Evaluation of Subsequent Events**

Management has considered and evaluated significant subsequent events through March 28, 2019 and there were no significant events that would have a material effect on the FY 2018 indirect rates other than the agreement to sell its Energy, Chemicals and Resources Business as described above.



# Clery Government Services, LLC

## REPORT OF INDEPENDENT PUBLIC ACCOUNTANT

To: Board of Directors  
Jacobs Engineering Group Inc.

Re: Internal Control Structure and Compliance with Applicable Laws and Regulations

We have audited the Summary of At-Office and At-Site Rates, Statement of Fringe Benefit Expense and Statement of General & Administrative Expense (Schedules of the Indirect Cost Rates) of Buildings and Infrastructure Americas (BIA) Design, a business unit of Jacobs Engineering Group Inc., calculated in accordance with the Federal Acquisition Regulation (FAR) Part 31 for the twelve months ended September 28, 2018, and we have issued our report thereon dated March 28, 2019. These schedules are the responsibility of BIA Design's management.

We conducted our audit in accordance with the auditing standards generally accepted in the United States and also the standards applicable to financial audits contained in *Government Auditing Standards* (July 2011 Revision), issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the aforementioned Schedules are free of material misstatement.

### **Internal Controls Over Financial Reporting**

The management of BIA Design is responsible for establishing and maintaining an internal control structure and for maintaining internal control over financial reporting and its indirect rate calculations. In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of internal control structure policies and procedures. The objectives of an internal control structure are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of the aforementioned schedules in accordance with applicable regulations including Part 31 of the FAR. Because of the inherent limitations in any internal control structure, errors or irregularities nevertheless may occur and not be detected. Also, projection of any evaluation of the structure to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or that the effectiveness of the design, implementation and/or operation of policies and procedures may deteriorate.

In planning and performing our audit of Schedules of the Indirect Cost Rates, we obtained a general understanding of BIA Design's internal control structure. That is, we obtained a general understanding of the design of the policies and procedures relevant to the aforementioned Schedules and whether these policies and procedures were in operation. Specifically, we obtained a general understanding of the controls over payroll processing, time reporting, cash disbursements, expense reporting and identification of unallowable costs. We assessed control risk in order to determine the nature and extent of our testing procedures for the sole purpose of expressing our opinion on the aforementioned Schedules but not for the purpose of expressing an opinion on the effectiveness of BIA Design's internal controls over financial reporting and the aforementioned Schedules. Accordingly, we do not express an opinion on the effectiveness of BIA Design's internal controls over financial reporting. Further, in our assessment of

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**Internal Control Over Financial Reporting - continued**

control risk, we concluded that substantive testing of the aforementioned Schedules was appropriate, and consequently, our compliance testing of BIA Design's internal control structure was very limited in its nature and scope.

The AICPA's Statement on Auditing Standards No. 115 states that a deficiency in internal control exists when the design or operation of an internal control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct misstatements on a timely basis.

A material weakness is a deficiency, or combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement in the Schedules of the Indirect Cost Rates will not be prevented or detected and corrected on a timely basis. A significant deficiency is a deficiency, or combination of control deficiencies, in internal control that is less severe than a material weakness, yet important enough to warrant the attention of management.

Our consideration of the internal controls over financial reporting was for the limited purpose described above and would not necessarily identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Nonetheless, we did not identify any deficiencies in the internal controls over BIA Design's financial reporting that we consider to be material weaknesses or significant deficiencies, as defined above.

**Compliance with Applicable Laws and Regulations**

Compliance with laws, regulations and contract terms applicable to BIA Design is the responsibility of BIA Design's management. As part of obtaining reasonable assurance about whether the aforementioned Schedules are free of material misstatement, we performed tests of BIA Design's compliance with certain provisions of laws, regulations and contracts; noncompliance with which could have a direct and material effect on the calculation of the actual indirect rates. However, the objective of our audit of the Schedules of the Indirect Cost Rates was not to provide an opinion on overall compliance with those provisions. Accordingly, we do not express such an opinion. Nonetheless, the results of our tests did not disclose any instances of noncompliance that are required to be reported under *Government Auditing Standards*.

This report is intended solely for the information of BIA Design's management and those government agencies with whom BIA Design has contracted. It is not intended to be and should not be used by anyone other than the aforementioned parties nor should it be used for any other purpose.

*Cleary Government Services, LLC*

Chicago, Illinois  
March 28, 2019

**Summary of At-Office and At-Site Rates  
and  
Statements of Fringe Benefit Expense and  
General & Administrative Expense in Accordance with the  
Federal Acquisition Regulation**

**BUILDINGS & INFRASTRUCTURE AMERICAS  
PROJECT MANAGEMENT/CONSTRUCTION MANAGEMENT (PMCM)**

**A Business Unit of Jacobs Engineering Group Inc.**

*For the Fiscal Year Ended September 28, 2018  
With Report of Independent Auditors*

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**Summary of At-Office and At-Site Rates  
and  
Statements of Fringe Benefit Expense and  
General & Administrative Expense in Accordance with the  
Federal Acquisition Regulation**

**BUILDINGS & INFRASTRUCTURE AMERICAS  
PROJECT MANAGEMENT/CONSTRUCTION MANAGEMENT (PMCM)**

**A Business Unit of Jacobs Engineering Group Inc.**

*For the Fiscal Year Ended September 28, 2018*

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# Cleary Government Services, LLC

## REPORT OF INDEPENDENT PUBLIC ACCOUNTANT

To: Board of Directors of Jacobs Engineering Group Inc.

Re: Indirect Cost Rates Prepared in Accordance with Part 31 of the Federal Acquisition Regulation

We have audited the accompanying Summary of At-Office and At-Site Rates, Statement of Fringe Benefit Expense and Statement of General & Administrative Expense (Schedules of the Indirect Cost Rates) of Buildings & Infrastructure Americas Project Management/Construction Management (BIA PMCM), a business unit of Jacobs Engineering Group Inc., for the twelve months ended September 28, 2018 prepared in accordance with Title 48, Code of Federal Regulations, Part 31 of the Federal Acquisition Regulation (FAR). BIA PMCM is a wholly-owned business unit of Jacobs Engineering Group Inc. These schedules are the responsibility of BIA PMCM's management. Our responsibility is to express an opinion on these schedules based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States and also the standards applicable to financial audits contained in *Government Auditing Standards* (July 2011 Revision), issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Schedules of the Indirect Cost Rates are free of material misstatement. An audit includes reviewing, on a test basis, evidence supporting the amounts and disclosures in the schedules and performing such other procedures as we considered necessary in the circumstances. Our audit also included assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

The aforementioned Schedules of the Indirect Cost Rates were prepared on a basis of accounting practices as prescribed by Part 31 of the FAR as discussed in Note 2, and are not intended to be a presentation in conformity with accounting principles generally accepted in the United States.

In our opinion, the Schedules referred to above present fairly, in all material respects, the Indirect Cost Rates of BIA PMCM for the twelve months ended September 28, 2018, calculated in accordance with Part 31 of the FAR.

In accordance with the *Government Auditing Standards*, we have also issued our report dated March 28, 2019 on our consideration of BIA PMCM's internal controls over financial reporting and our test of its compliance with applicable laws and regulations. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report.

Individuals relying on this report must have an adequate understanding of Part 31 of the FAR. Therefore, this report is intended solely for the information of management and government agencies for use under contracts governed by the aforementioned regulations. It is not intended to be and should not be used by anyone other than the aforementioned parties nor should it be used for any other purpose.



Chicago, Illinois  
March 28, 2019

**BUILDINGS & INFRASTRUCTURE AMERICAS  
Project Management/Construction Management (PMCM)**

**A Business Unit of Jacobs Engineering Group Inc.  
Summary of At-Office and At-Site Rates  
For the Fiscal Year Ended September 28, 2018**

The At-Office and At-Site rates relative to the audited Fringe Benefit Expense and General & Administrative Expense Statements were computed in accordance with Part 31 of the Federal Acquisition Regulation (FAR).

**Buildings & Infrastructure Americas PMCM**

**At-Office**

**Indirect Rates**

At-Site General & Administrative Rate  
Use & Occupancy Rate  
Fringe Benefit Rate  
**Combined Rate**

**Direct Labor Base**  
**38.16%**  
**22.31%**  
**27.80%**  
**88.27%**

**At-Site**

At-Site General & Administrative Rate  
Fringe Benefit Rate  
**Combined Rate**

**38.16%**  
**27.80%**  
**65.96%**

See the following statements for detailed computations of the above Fringe Benefit Expense and General & Administrative Expense rates and the applicable explanatory notes.

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**Buildings & Infrastructure Americas  
Project Management/Construction Management (PMCM)**

**A Business Unit of Jacobs Engineering Group Inc.  
Statement of Fringe Benefit Expense  
For the Fiscal Year Ended September 28, 2018**

	<b>BIA PMCM DIRECT FRINGE BENEFIT EXPENSE</b>
	<u>(Note 5)</u>
<b><u>COSTS, NET OF ADJUSTMENTS</u></b>	
PAID TIME OFF	\$ 7,773,787
HOLIDAY	2,273,326
BEREAVEMENT LEAVE	213,770
FICA	6,915,934
SUI	406,205
FUI	40,535
THRIFT PLAN	2,047,042
GROUP INSURANCE	4,728,124
WORKERS' COMPENSATION	143,498
GENERAL LIABILITY	1,555,266
EMPLOYEE ASSISTANCE PLAN	25,498
	<hr/>
<b>TOTAL ALLOCATED FRINGE BENEFITS</b>	<b>\$ 26,122,985</b>
	<hr/>
<b>TOTAL FRINGE LABOR BASE</b>	<b>\$ 93,955,858</b>
	<hr/>
<b>COMPANY-WIDE FRINGE BENEFIT RATE</b>	<b>27.80%</b>
	<hr/>

The accompanying notes are an integral part of this statement.

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**BUILDINGS & INFRASTRUCTURE AMERICAS  
PROJECT MANAGEMENT/CONSTRUCTION MANAGEMENT (PMCM)**

A Business Unit of Jacobs Engineering Group Inc.  
Statement of General & Administrative Expense  
For the Fiscal Year Ended September 28, 2018

	<u>TOTAL INCURRED G&amp;A COSTS</u>	<u>TOTAL FAR UNALLOWABLE COST ADJUSTMENTS</u> (Note 2)	<u>NOTES</u>	<u>NET CLAIMED G&amp;A COSTS</u>	<u>GENERAL &amp; ADMINISTRATIVE RATE APPLIED TO AT-SITE &amp; AT-OFFICE PROJECTS</u>	<u>USE &amp; OCCUPANCY RATE (AT- OFFICE)</u>
<b>INDIRECT LABOR</b>	\$ 7,451,521	\$ (214,542)	4	\$ 7,236,979	\$ 7,236,979	\$ -
<b>INDIRECT EXPENSES</b>						
OFFICE OCCUPANCY EXPENSES	\$ 1,970,052	\$ (5,784)		\$ 1,964,268	\$ 181,615	\$ 1,782,653
PERSONAL COMPUTER AND NETWORK SERVICES	1,318,372	-		1,318,372	9,563	1,308,809
FRINGE BENEFITS	2,082,351	-	5	2,082,351	2,082,351	-
PENSION & STOCK AMORTIZATION	906,216	-	6	906,216	906,216	-
TRAVEL & BUSINESS MEALS	569,955	(176,129)	7	393,826	393,826	-
EMPLOYEE TRAINING & DUES	131,342	(47,716)	8	83,626	83,626	-
OUTSIDE SERVICES	52,878	(22,075)	9	30,803	30,791	12
BUSINESS LICENSE & TAXES	178,073	(22,197)		155,876	107,513	48,363
TEMPORARY STAFF	1,300	-		1,300	1,300	-
OFFICE AND OTHER SUPPLIES	62,852	(20,352)		42,500	-	42,500
RECRUITING & RELOCATION	57,019	(28,875)	10	28,144	27,408	736
VEHICLE EXPENSES	53,860	(2,352)		51,508	23,541	27,967
POSTAGE & FREIGHT	11,259	-		11,259	11,259	-
REPRODUCTION	4,610	(352)		4,258	-	4,258
OTHER	570,370	(404,299)	11	166,071	88,371	77,700
<b>SUBTOTAL INDIRECT EXPENSES</b>	<b>\$ 15,423,321</b>	<b>\$ (945,183)</b>		<b>\$ 14,478,138</b>	<b>\$ 11,185,140</b>	<b>\$ 3,292,998</b>
<b>OTHER INDIRECT EXPENSES</b>						
BONUS PAYMENTS	\$ 780,283	\$ -	12	\$ 780,283	\$ 780,283	\$ -
SEVERANCE & SEPARATION PAYMENTS	-	-	13	-	-	-
EMPLOYEE STOCK PURCHASE PLAN	76,075	-		76,075	76,075	-
<b>SUBTOTAL OTHER INDIRECT EXPENSES</b>	<b>\$ 856,358</b>	<b>\$ -</b>		<b>\$ 856,358</b>	<b>\$ 856,358</b>	<b>\$ -</b>
<b>ALLOCATIONS</b>						
CORPORATE ALLOCATIONS	26,316,231	(2,504,303)	3, 4	23,811,928	23,811,928	-
<b>SUBTOTAL ALLOCATIONS</b>	<b>\$ 26,316,231</b>	<b>\$ (2,504,303)</b>		<b>\$ 23,811,928</b>	<b>\$ 23,811,928</b>	<b>\$ -</b>
<b>TOTAL G&amp;A EXPENSES</b>	<b>\$ 42,595,910</b>	<b>\$ (3,449,486)</b>		<b>\$ 39,146,424</b>	<b>\$ 35,853,426</b>	<b>\$ 3,292,998</b>
<b>DIRECT LABOR (TOTAL AND AT-OFFICE) WITHOUT FRINGE</b>					<b>\$ 93,955,858</b>	<b>\$ 14,762,718</b>
<b>BIA PMCM COST RATES</b>					<b>38.16%</b>	<b>27.31%</b>
<b>COMPANY-WIDE FRINGE BENEFIT RATE</b>					<b>27.80%</b>	<b>27.80%</b>
<b>AT-SITE GENERAL &amp; ADMINISTRATIVE RATE (Using Direct Labor \$'s as the Base)</b>					<b>65.96%</b>	
<b>AT-OFFICE GENERAL &amp; ADMINISTRATIVE RATE (Using Direct Labor \$'s as the Base)</b>						<b>88.27%</b>

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**Buildings & Infrastructure Americas PMCM**  
**A Business Unit of Jacobs Engineering Group Inc.**  
**Notes to Statements of Fringe Benefit Expense**  
**and General & Administrative Expense**  
**for the Fiscal Year Ended September 28, 2018**

**1. Business and Basis of Presentation**

The financial information presented in the accompanying Statements of Fringe Benefit Expense and General & Administrative expense includes the expenses of Buildings and Infrastructure Americas Project Management/Construction Management (the Company or BIA PMCM) for the fiscal year ended September 28, 2018. The Fiscal Year (FY) 2018 company-wide indirect rates presented herein include the operations and results of BIA PMCM.

The Company is a business unit of Jacobs Engineering Group Inc. (the Parent Company), and the Parent Company is a publicly traded company on the NYSE. BIA PMCM provides strategic planning, architecture, engineering, construction management, program management, and design-build services for a diverse client base encompassing both public and private sectors. Major markets include highways, rail, utilities & power, built environment, energy, waste and water, nuclear & defense, architecture, engineering and process industries.

The Parent Company was originally incorporated in 1957, and its clients include federal, state, local, and foreign government agencies, as well as numerous commercial entities. Revenues are derived from billings for professional services; project services; process; scientific and systems consulting services; operations and maintenance services; and construction services.

**2. Basis of Accounting and Description of Accounting Systems**

The Company's policy is to prepare the accompanying Statements of Fringe Benefit Expense and General & Administrative Expense on the basis of accounting practices prescribed by Chapter 1, Part 31 and Chapter 99 of the Federal Acquisition Regulation (FAR). The above-mentioned statements are not intended to present the financial position or the results of operations of the Company in conformity with accounting principles generally accepted in the United States. The Company maintains its books of accounts using the Accrual Method of accounting.

The Company uses a multi-step process to identify and quantify unallowable costs as defined in FAR Part 31. First, the Company identifies certain expense accounts, expenditure types in the general ledger and certain indirect projects as totally unallowable (e.g., interest expense, bad debts expense, etc.). For certain other expense accounts that are likely to contain unallowable costs, the Company either reviews all of the significant transactions in the account or it reviews a sample of the transactions in the account. For those expense accounts that are sampled, the Company extrapolates the results of the sample to the related expense account population. The larger unallowable amounts generated by this process are discussed below. In addition, the Company voluntarily excludes certain other costs from the indirect cost pools, and it uses estimates to determine the amount of certain other unallowable costs.

**Buildings & Infrastructure Americas PMCM**  
**A Business Unit of Jacobs Engineering Group Inc.**  
**Notes to Statements of Fringe Benefit Expense**  
**and General & Administrative Expense**  
**for the Fiscal Year Ended September 28, 2018**

**2. Basis of Accounting and Description of Accounting Systems (continued)**

The Company maintains a job cost accounting system based on actual costs for recording and accumulating costs incurred under its contracts. Each project is assigned a unique job number so that costs may be properly segregated and accumulated in the Company's job cost accounting system. Employee labor costs are charged to jobs using the employee's actual hourly pay rate at the time that the labor is incurred. For salaried employees, their actual hourly pay rate for job costing purposes is based on their annual salary divided by 2,080 hours per year.

**Direct and Indirect Costs** - Costs are specifically identified and recorded separately in the formal financial accounting records as Direct Costs and Indirect Costs as established in accordance with the Company's disclosed practices. Direct costs are those costs that can be specifically identified to a customer project, work activity or final cost objective. Indirect costs are those costs that cannot be specifically identified with a single customer project, direct work activity or final cost objective. Contract/ Purchased labor is treated as Other Direct Costs (ODC's).

Nonsalary Direct Project Costs sometimes referred to as ODC's are consistently charged to all projects regardless of the recoverability from the customer.

**Paid Time Off** - The Company accrues Paid Time Off (PTO) based on the years of service for each employee. PTO may be used by employees for a variety of reasons, including (but not limited to) vacation, illness, accident, bereavement or personal time off. All requested PTO is subject to supervisory approval.

PTO benefits are paid based on the employee's base pay rate at the time that the absence occurs and does not include any special forms of compensation such as incentives, commissions, bonuses or shift differentials. Employees receive pay for all accrued but unused PTO hours upon separation from the Company.

**Overtime Compensation** - The Company's policy on pay practices and overtime pay eligibility compliance is established to appropriately pay employees in accordance with their classifications as defined by the Fair Labor Standards Act, 29 C.F.R. § 541.602 (FLSA). This policy discusses federal regulations regarding overtime. State laws may be more restrictive than federal laws. Local Human Resources representatives provide details regarding regulations for specific states. In certain circumstances, exempt employees may receive additional compensation for work in excess of their regularly scheduled hours. The employee's immediate supervisor is responsible for authorizing and supervising any overtime work performed.

**Uncompensated Overtime** - The Company's policy regarding overtime is to compensate NONEXEMPT employees for authorized additional hours of work in accordance with the FLSA. BIA PMCM's cost accounting practice is that salaried (EXEMPT) employees' record all hours worked. EXEMPT employees now record all hours worked including any authorized uncompensated overtime. Each hour recorded, either compensated or uncompensated, is charged to cost objectives at the employee's actual rate of pay based on a standard 40 hour workweek. The variance between the employee's pay rate for the week and the value of the hours charged at the actual labor rate was credited to the At-Site G&A pool resulting in a credit of approximately (\$40,511).

**Project Support Functions** - BIA PMCM also treats certain activities related to its Manager of Projects, Project Controls and Contracts Management functions as indirect, which is consistent with the Company's disclosed practice.

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**Buildings & Infrastructure Americas PMCM**  
A Business Unit of Jacobs Engineering Group Inc.  
**Notes to Statements of Fringe Benefit Expense  
and General & Administrative Expense  
for the Fiscal Year Ended September 28, 2018**

**2. Basis of Accounting and Description of Accounting Systems (continued)**

Depreciation - Property, equipment and improvements are recorded at cost. Depreciation and amortization is computed primarily by using the straight-line method over the estimated useful lives of the assets. The cost of leasehold improvements and equipment is amortized using the straight-line method over the lesser of the estimated useful life of the asset or the remaining term of the related lease. Estimated useful lives range from 20 to 40 years for buildings, from 3 to 15 years for equipment and from 3 to 7 years for computers and software.

The Company's method of estimating costs for pricing purposes during the proposal process is consistent with the accumulation and reporting of costs under its job cost accounting system.

The accompanying Statement of General & Administrative Expenses includes Jacobs' Residual Pool allocated using the three-factor formula (i.e., average of revenues, payroll \$'s and net fixed assets).

**3. Allocation Methods**

The Company has established two indirect rates: (1) an At-Office Rate that is applied to work performed in Jacobs-provided facilities, and (2) an At-Site Rate that is applied to work performed at non-Jacobs (i.e., customer) provided facilities. The allocation base for the At-Site G&A rate includes all Professional Services and all Field Staff Direct Labor including any labor premiums. The allocation base for the At-Office rate includes At-Office Professional Services and At-Office Field Staff Direct Labor including any labor premiums. Contract labor is not included in the direct labor base but is instead recorded as Other Direct Costs (ODC's).

The Company uses the same fringe benefit rate for both its At-Office and At-Site direct labor and allocates fringe benefit expenses based upon total payroll dollars (including premiums and excluding incentive compensation).

The Company receives an allocation of costs from Jacobs' BIA Intermediate Home Office G&A Pool (IHO), and the BIA IHO allocates its costs to BIA PMCM and BIA Design based on Direct Labor Dollars (including premiums, excluding Craft Labor). The BIA IHO is responsible for the overall management and operations of both BIA PMCM and BIA Design, and the BIA IHO's costs primarily salaries and wages, fringe benefits and allocations from the Jacobs Corporate Home Office.

As noted above, the BIA IHO also receives an allocation of costs from the Parent Company that includes salaries, related fringe benefits and general and administrative expenses. The G&A expenses include the costs of certain corporate executive management, legal, accounting, treasury, information systems, human resources, health and safety, and other corporate functions. These costs are allocated to the BIA IHO based upon a three-tier method, which allocates costs that are: (1) directly attributable to the BIA IHO; (2) separately associated with the BIA IHO that are allocated based upon appropriate bases that use direct labor dollars, total payroll dollars, revenues, or a combination thereof; and, (3) amounts remaining after the first two tiers, allocated based upon a three-factor formula that is computed using total permanent Professional Service and Field Staff payroll dollars, the average net book value of fixed assets, and revenues.

**Buildings & Infrastructure Americas PMCM**  
**A Business Unit of Jacobs Engineering Group Inc.**  
**Notes to Statements of Fringe Benefit Expense**  
**and General & Administrative Expense**  
**for the Fiscal Year Ended September 28, 2018**

**3. Allocation Methods (continued)**

The allocations of the BIA IHO and the Parent Company's Corporate Home Office costs have been properly adjusted to reflect FAR Part 31 disallowances. These amounts were determined by the multi-step process described above in Note 2. The net allowable costs for each of the Corporate Home Office cost pools are then allocated using the methodologies described above.

**4. Executive Compensation**

The Company performed a compensation analysis to review and evaluate its executive and employee compensation. The adjustment to indirect labor includes an adjustment of \$213,906 for excess executive compensation based on application of a weighted average benchmark of \$521,750. As part of this analysis, senior executives and employees were also benchmarked against surveys in which the Parent Company participated. The overall result of the compensation analysis demonstrated the reasonableness of the Company's compensation with the exception of the aforementioned disallowance. In addition, an excess compensation disallowance of \$983,919, is reflected as a part of the total Corporate Office Allocation based on the weighted average benchmark disallowance in accordance with FAR 31.205-6.

**5. Fringe Benefits**

The Parent Company calculates a Company-wide fringe benefit rate that is applied to its US business units and wholly-owned subsidiaries. Fringe benefit costs include an adjustment of the indirect fringe benefit expense recorded in the general ledger at the standard fringe rate of 31.5% to the FY 2018 actual fringe rate of 27.80%.

**6. Restricted Stock and Pension Plan**

The Parent company maintains a restricted stock plan as part of compensation in accordance with FAR 31.205-6. The Company's share of the restricted stock plan included in the G&A Pool is \$210,708 as well as \$33,453 included in Corporate Allocations. The Company also provides, for certain employees from previously-acquired companies, a combined-defined benefit pension plan that meets the requirements of FAR 31.205-6(j). The Company's share of the pension plan included in the G&A Pool is \$695,508 as well as \$24,091 included in Corporate Allocations.

**7. Travel & Business Meals**

Based on a review of travel and related costs, BIA PMCM disallowed \$176,129 in accordance with FAR 31.205-46.

**8. Employee Training & Dues**

The unallowable cost adjustment amount of \$47,716 represents dues that are unallowable in accordance with FAR 31.205-14.

**Buildings & Infrastructure Americas PMCM**  
**A Business Unit of Jacobs Engineering Group Inc.**  
**Notes to Statements of Fringe Benefit Expense**  
**and General & Administrative Expense**  
**for the Fiscal Year Ended September 28, 2018**

**9. Outside Services**

The unallowable cost adjustment of \$22,075 represents professional service costs disallowed in accordance with FAR 31.205-33.

**10. Recruiting & Relocation**

The relocation adjustment of \$28,875 represents employee relocation expenses that are considered unallowable in accordance with FAR 31.205-35.

**11. Other**

Included in the other adjustment of \$404,299 are the following FY 208 actual unallowable costs:

Internal Promotion (FAR 31.2 various)	\$ 76,066
External Promotion Meals, Entertainment & Other (FAR 31.2 various)	\$ 69,981
Contributions (FAR 31.205-8)	<u>\$ 248,070</u>
	<u>\$ 394,117*</u>

\*The remaining balance of the disallowed amount is determined using the methodology discussed in Note 2.

**12. Incentive Compensation - Bonuses**

All awards are paid in full within 90 days of the close of the applicable fiscal year, except (i) Executive incentives that have not been certified by the Compensation Committee of the Board of Directors as required, which are paid as soon as practicable following such certification and (ii) those deferred pursuant to the terms of a Company sponsored plan for which a Participant is eligible, which are paid pursuant to the terms of the Plan.

**13. Direct Cost Accounts include the following but are not limited to:**

The major types of Other Direct Costs include but are not limited to:

- Travel, subsistence and relocation
- Subcontracts/consultants
- Contract specific training and employee development
- Temporary, contract and other purchased labor/services
- Contract specific supplies
- Contract specific equipment rental/leases
- Telephone/fax/communications
- Shipping charges & postage
- Outside/specialty reproduction costs
- Craft labor fringe costs
- Special taxes

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**for the Fiscal Year Ended September 28, 2018**

**13. Direct Cost Accounts include the following but are not limited to: (continued)**

The Company's internal controls include segregation of duties between accounts payable job functions, performance of a pre-audit on certain accounts/expenditure types, accounts payable coding training and control of general and administrative costs through a rigorous budget vs. actual review process to avert the inclusion of direct costs in the indirect cost pool.

**14. Related Party Transactions**

No adjustments or disclosures are required per FAR 31.205-26(e) or FAR 31.205-36(b)(3).

**15. Acquisition of CH2M HILL**

On December 15, 2017, Jacobs' completed the acquisition of CH2M HILL Companies, Ltd. (CH2M), an international provider of engineering, construction, and technical services, by acquiring 100% of the outstanding shares of CH2M's common and preferred stock. The combined Companies had annual revenues of approximately \$15 billion in FY 2018. The acquisition enhances Jacobs' position in the infrastructure, water and transportation markets among other markets. Jacobs and CH2M operated largely as separate, stand-alone companies during FY 2018. That is, each of the Companies' respective cost accounting practices and related CAS Disclosure Statements remained in effect during FY 2018. The combination of Jacobs and CH2M already has and will continue to yield significant operational and administrative efficiencies and savings through reductions in personnel, the closure and consolidation of redundant offices, etc.

As a result of the acquisition, CH2M is now a wholly-owned subsidiary of Jacobs. The development of the new Buildings and Infrastructure Americas (BIA) operating model and organization structure has been finalized. Management has completed the process of harmonizing the cost accounting practices and finalizing the FY 2019 indirect rate structure. As of September 29, 2018, the CH2M staff and projects are integrated into Jacobs' project accounting systems and indirect rate structure; allowing all of the Jacobs BIA employees to charge projects contracted by either firm. The final step of the accounting consolidation occurred on January 1, 2019 when all CH2M legacy personnel payroll was transferred to Jacobs' payroll system.

**Buildings & Infrastructure Americas PMCM**  
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**Notes to Statements of Fringe Benefit Expense**  
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**for the Fiscal Year Ended September 28, 2018**

**16. Restructuring and Integration Costs**

In connection with the acquisition of CH2M, both Jacobs and CH2M incurred costs to restructure and integrate their operations and businesses. These costs include severance, office lease termination costs, office relocation and closure costs, certain consulting costs, etc. which Jacobs analyzed to determine the allowable costs under FAR Part 31. Accordingly, the Company incurred restructuring and integration costs in FY 2018, and it included the allowable portion of these costs, \$389k, in its FY 2018 indirect rates. Similarly, the Company received allocations of restructuring and integration costs from the Jacobs Corporate Home Office in FY 2018 of \$1.5M. The unallowable costs associated with the acquisition have been properly removed from the Company's claimed costs. For US Department of Defense (DoD) contracting purposes only, the Company will submit a proposal to the Federal Government for certain Restructuring related costs and then recover those costs on Federal DoD contracts in accordance with the provisions of DFARS 231.205-70.

**17. Agreement to sell Energy, Chemicals and Resources**

Jacobs announced that it has entered into an agreement to sell its Energy, Chemicals and Resources (ECR) business to WorleyParsons Limited for \$3.3 billion. Subject to the satisfaction of the remaining conditions to closing, Jacobs will then, be focused solely on its two higher growth, higher margin lines of business – Aerospace, Technology & Nuclear (ATN) and Buildings, Infrastructure & Advanced Facilities (BIAF).

**18. Management's Evaluation of Subsequent Events**

Management has considered and evaluated significant subsequent events through March 28, 2019 and there were no significant events that would have a material effect on the FY 2018 indirect rates other than the agreement to sell its Energy, Chemicals and Resources Business as described above.

# Cleary Government Services, LLC

## REPORT OF INDEPENDENT PUBLIC ACCOUNTANT

To: Board of Directors  
Jacobs Engineering Group Inc.

Re: Internal Control Structure and Compliance with Applicable Laws and Regulations

We have audited the Summary of At-Office and At-Site Rates, Statement of Fringe Benefit Expense and Statement of General & Administrative Expense (Schedules of the Indirect Cost Rates) of Buildings & Infrastructure Americas Project Management/Construction Management (BIA PMCM), a business unit of Jacobs Engineering Group Inc., calculated in accordance with the Federal Acquisition Regulation (FAR) Part 31 for the twelve months ended September 28, 2018, and we have issued our report thereon dated March 28, 2019. These schedules are the responsibility of BIA PMCM's management.

We conducted our audit in accordance with the auditing standards generally accepted in the United States and also the standards applicable to financial audits contained in *Government Auditing Standards* (July 2011 Revision), issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the aforementioned Schedules are free of material misstatement.

### **Internal Controls Over Financial Reporting**

The management of BIA-PMCM is responsible for establishing and maintaining an internal control structure and for maintaining internal control over financial reporting and its indirect rate calculations. In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of internal control structure policies and procedures. The objectives of an internal control structure are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of the aforementioned schedules in accordance with applicable regulations including Part 31 of the FAR. Because of the inherent limitations in any internal control structure, errors or irregularities nevertheless may occur and not be detected. Also, projection of any evaluation of the structure to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or that the effectiveness of the design, implementation and/or operation of policies and procedures may deteriorate.

In planning and performing our audit of Schedules of the Indirect Cost Rates, we obtained a general understanding of BIA PMCM's internal control structure. That is, we obtained a general understanding of the design of the policies and procedures relevant to the aforementioned Schedules and whether these policies and procedures were in operation. Specifically, we obtained a general understanding of the controls over payroll processing, time reporting, cash disbursements, expense reporting and identification of unallowable costs. We assessed control risk in order to determine the nature and extent of our testing procedures for the sole purpose of expressing our opinion on the aforementioned Schedules but not for the purpose of expressing an opinion on the effectiveness of BIA PMCM's internal controls over financial reporting and the aforementioned Schedules. Accordingly, we do not express an opinion on the effectiveness of BIA PMCM's internal controls over financial reporting. Further, in our assessment of



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**Internal Control Over Financial Reporting - continued**

control risk, we concluded that substantive testing of the aforementioned Schedules was appropriate, and consequently, our compliance testing of BIA PMCM's internal control structure was very limited in its nature and scope.

The AICPA's Statement on Auditing Standards No. 115 states that a deficiency in internal control exists when the design or operation of an internal control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct misstatements on a timely basis.

A material weakness is a deficiency, or combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the Schedules of the Indirect Cost Rates will not be prevented or detected and corrected on a timely basis. A significant deficiency is a deficiency, or combination of control deficiencies, in internal control that is less severe than a material weakness, yet important enough to warrant the attention of management.

Our consideration of the internal controls over financial reporting was for the limited purpose described above and would not necessarily identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Nonetheless, we did not identify any deficiencies in the internal controls over BIA PMCM's financial reporting that we consider to be material weaknesses or significant deficiencies, as defined above.

**Compliance with Applicable Laws and Regulations**

Compliance with laws, regulations and contract terms applicable to BIA PMCM is the responsibility of BIA PMCM's management. As part of obtaining reasonable assurance about whether the aforementioned Schedules are free of material misstatement, we performed tests of BIA PMCM's compliance with certain provisions of laws, regulations and contracts; noncompliance with which could have a direct and material effect on the calculation of the actual indirect rates. However, the objective of our audit of the Schedules of the Indirect Cost Rates was not to provide an opinion on overall compliance with those provisions. Accordingly, we do not express such an opinion. Nonetheless, the results of our tests did not disclose any instances of noncompliance that are required to be reported under *Government Auditing Standards*.

This report is intended solely for the information of BIA PMCM's management and those government agencies with whom BIA PMCM has contracted. It is not intended to be and should not be used by anyone other than the aforementioned parties nor should it be used for any other purpose.

*Cleary Government Services, LLC*

Chicago, Illinois  
March 28, 2019

**CLEARY GOVERNMENT SERVICES, LLC**

**CH2M HILL, A JACOBS COMPANY**

(Divisions of CH2M HILL, INC., CH2M HILL Constructors, Inc.,  
CH2M Polska Services and CH2M HILL Engineers, Inc.)

**CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates**

(Field Office and Home Office)

For the Nine Months Ended September 28, 2018

(With Independent Auditor's Report Thereon)

**CH2M HILL, A JACOBS COMPANY**  
(Divisions of CH2M HILL, INC., CH2M HILL Constructors, Inc.,  
CH2M Polska Services and CH2M HILL Engineers, Inc.)

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# Cleary Government Services, LLC

## REPORT OF INDEPENDENT PUBLIC ACCOUNTANT

To: Board of Directors of CH2M HILL Companies, LTD, a Jacobs Company

Re: Indirect Cost Rates Prepared in Accordance with Part 31 of the Federal Acquisition Regulation

We have audited the accompanying Schedules of the CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates (the Schedules) of CH2M HILL Companies, LTD (CH2M), a Jacobs Company which includes the CH2M Client Sectors; the National Governments Client Sector, the State and Local Governments Client Sector, and the Private Client Sector (collectively, the Divisions) are operating Divisions within CH2M HILL, INC., CH2M HILL Constructors, Inc., CH2M Polska Services and CH2M HILL Engineers, Inc (the Companies), for the nine months ended September 28, 2018 prepared in accordance with Title 48, Code of Federal Regulations, Part 31 of the Federal Acquisition Regulation (FAR). These Schedules are the responsibility of CH2M's management. Our responsibility is to express an opinion on these Schedules based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States and also the standards applicable to financial audits contained in *Government Auditing Standards* (July 2011 Revision), issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Schedules of the CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates are free of material misstatement. An audit includes reviewing, on a test basis, evidence supporting the amounts and disclosures in the Schedules and performing such other procedures as we considered necessary in the circumstances. Our audit also included assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

The aforementioned Schedules of the CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates were prepared on a basis of accounting practices as prescribed by Part 31 of the FAR as discussed in Note 2 and are not intended to be a presentation in conformity with accounting principles generally accepted in the United States.

In our opinion, the Schedules referred to above present fairly, in all material respects, the CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates for the nine months ended September 28, 2018, calculated in accordance with Part 31 of the FAR.

In accordance with the *Government Auditing Standards*, we have also issued our report dated March 28, 2019 on our consideration of CH2M's internal controls over financial reporting and our test of its compliance with applicable laws and regulations. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report.

## Cleary Government Services, LLC

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Individuals relying on this report must have an adequate understanding of Part 31 of the FAR. Therefore, this report is intended solely for the information of management and government agencies for use under contracts governed by the aforementioned regulations. It is not intended to be and should not be used by anyone other than the aforementioned parties nor should it be used for any other purpose.

*Cleary Government Services, LLC*

Chicago, Illinois

March 28 2019

**Cleary Government Services, LLC**  
**REPORT OF INDEPENDENT PUBLIC ACCOUNTANT**

To: Board of Directors CH2M HILL Companies, LTD, a Jacobs Company

Re: Internal Control Structure and Compliance with Applicable Laws and Regulations

We have audited the Schedules of the CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates (the Schedules) of CH2M HILL Companies, LTD (CH2M), a Jacobs Company which includes the CH2M Client Sectors, the National Governments Client Sector, the State and Local Governments Client Sector, and the Private Client Sector (collectively, the Divisions) are operating Divisions within CH2M HILL, INC., CH2M HILL Constructors, Inc., CH2M Polska Services and CH2M HILL Engineers, Inc (the Companies), for the nine months ended September 28, 2018, and we have issued our report thereon dated March 28, 2019. These Schedules are the responsibility of CH2M's management.

We conducted our audit in accordance with the auditing standards generally accepted in the United States and also the standards applicable to financial audits contained in *Government Auditing Standards* (July 2011 Revision), issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the aforementioned Schedules are free of material misstatement.

**Internal Controls Over Financial Reporting**

The managements of CH2M and Jacobs are responsible for establishing and maintaining an internal control structure and for maintaining internal control over financial reporting and its indirect rate calculations. In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of internal control structure policies and procedures. The objectives of an internal control structure are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of the aforementioned Schedules in accordance with applicable regulations including Part 31 of the FAR. Because of the inherent limitations in any internal control structure, errors or irregularities nevertheless may occur and not be detected. Also, projection of any evaluation of the structure to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or that the effectiveness of the design, implementation and/or operation of policies and procedures may deteriorate.

In planning and performing our audit of the Schedules of the CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates, we obtained a general understanding of CH2M's and Jacobs' internal control structure. That is, we obtained a general understanding of the design of the policies and procedures relevant to the aforementioned Schedules and whether these policies and procedures were in operation. Specifically, we obtained a general understanding of the controls over payroll processing, time reporting, cash disbursements, expense reporting and identification of unallowable costs. We assessed control risk in order to determine the nature and extent of our testing procedures for the sole purpose of expressing our opinion on the aforementioned Schedules but not for the purpose of expressing an opinion on the effectiveness of CH2M's and Jacobs' internal controls over financial reporting and the aforementioned Schedules. Accordingly, we do not express an opinion on the effectiveness of CH2M's and Jacobs' internal controls over financial reporting. Further, in our assessment of control risk, we concluded that substantive testing

# Cleary Government Services, LLC

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## Internal Control Over Financial Reporting - continued

of the aforementioned Schedules was appropriate, and consequently, our compliance testing of CH2M's and Jacobs' internal control structure was very limited in its nature and scope.

The AICPA's Statement on Auditing Standards No. 115 states that a deficiency in internal control exists when the design or operation of an internal control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct misstatements on a timely basis.

A material weakness is a deficiency, or combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the Schedules of the CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates will not be prevented or detected and corrected on a timely basis. A significant deficiency is a deficiency, or combination of control deficiencies, in internal control that is less severe than a material weakness, yet important enough to warrant the attention of management.

Our consideration of the internal controls over financial reporting was for the limited purpose described above and would not necessarily identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Nonetheless, we did not identify any deficiencies in the internal controls over financial reporting that we consider to be material weaknesses or significant deficiencies, as defined above.

## Compliance with Applicable Laws and Regulations

Compliance with laws, regulations and contract terms applicable to CH2M and Jacobs is the responsibility of CH2M's and Jacobs' management. As part of obtaining reasonable assurance about whether the aforementioned Schedules are free of material misstatement, we performed tests of CH2M's and Jacobs' compliance with certain provisions of laws, regulations and contracts; noncompliance with which could have a direct and material effect on the calculation of the actual indirect rates. However, the objective of our audit of the Schedules of the CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates was not to provide an opinion on overall compliance with those provisions. Accordingly, we do not express such an opinion. Nonetheless, the results of our tests did not disclose any instances of noncompliance that are required to be reported under *Government Auditing Standards*.

This report is intended solely for the information of CH2M's and Jacobs' management and those government agencies with whom CH2M has contracted. It is not intended to be and should not be used by anyone other than the aforementioned parties nor should it be used for any other purpose.

*Cleary Government Services, LLC*

Chicago, Illinois

March 28, 2019

**CH2M a Jacobs Company**  
**Statement of Federal Acquisition Regulation Compliant Home Office Indirect Cost Rate**  
**For the Nine Months Ended September 28, 2018**

<b>Home Office Rate</b>				
<b><u>Payroll Taxes and Fringe Benefits:</u></b>	<b>General Ledger</b>	<b>Adjustments</b>	<b>Total Claimed</b>	<b>Comments</b>
Payroll Taxes	\$ 39,417,101	\$ (38,798)	\$ 39,378,302	11, 12
Vacation, Holiday & Sick Pay	59,316,060	-	59,316,060	12
Group Insurance and Miscellaneous	38,994,403	100,441	39,094,844	2, 3, 4, 12
Pension Plan	(455,588)	3,510,548	3,054,960	3, 12
	<u>\$ 137,271,976</u>	<u>\$ 3,572,191</u>	<u>\$ 140,844,167</u>	
<b><u>General and Administrative Expenses:</u></b>				
Indirect Salaries	\$ 55,104,318	\$ -	\$ 55,104,318	12
Incentive and Retirement Pay	10,544,189	11,469,363	22,013,551	3, 7, 12, 13
Buildings & Equipment	6,476,935	3,829	6,480,763	4, 12
Taxes, Licenses & Insurance	2,596,288	7,104,814	9,701,102	1, 10, 11, 12
Professional Services	32,762,869	(639,124)	32,123,744	1, 4, 12
Travel & Subsistence	8,647,106	(2,368,659)	6,278,447	1, 12
Office Supplies Expense	2,628,202	(449,294)	2,178,908	1, 12
Professional Education	644,881	(134,694)	510,186	1, 12
Recruiting Costs	7,086,485	(2,357,400)	4,729,086	1, 12
Printing & Computers	67,909	-	67,909	12
Home Office & Intermediate Allocations	(12,499,719)	153,270,506	140,770,787	1, 4, 5, 6, 8, 12, 14, 15, 16, 17, 18, 19
	<u>\$ 114,059,462</u>	<u>\$ 165,899,340</u>	<u>\$ 279,958,802</u>	
<b>Total Indirect Expenses</b>	<u>\$ 251,331,438</u>	<u>\$ 169,471,532</u>	<u>\$ 420,802,969</u>	
<b>Direct Labor Costs (Base)</b>	<u>\$ 413,132,032</u>	<u>\$ 5,002</u>	<u>\$ 413,137,034</u>	
<b>Home Office Indirect Cost Rate</b>			<u>101.9%</u>	
<b>Facilities Capital Cost of Money Rate</b>			<u>0.340%</u>	20

**Comments**

1. Unallowable costs removed per the Federal Acquisition Regulations (FAR) Part 31.
2. Post-retirement benefits adjustments per the FAR and the Cost Accounting Standards (CAS).
3. Pension and disability cost adjustments per the FAR and the CAS.
4. Credit to offset overhead expenses with income/reimbursement received and remove overhead charges to affiliates, per FAR 31.201-5.
5. Holding company allocation from CH2M HILL Companies, Ltd.
6. Allocation from CH2M Client Sector Management Home Office.
7. Adjustment for FAR compensation limits.
8. Adjustment to remove unallowable/unclaimed projects.
9. Adjustment to remove fringe benefits allocated to unallowable/unclaimed projects.
10. Adjustment to self-insured professional liability to align to projected average losses per CAS 416.
11. Adjustment of self-insured workers compensation costs to projected average loss per CAS 416.
12. Indirect costs are allocated between Field and Home Office.
13. Adjustment made to remove booked incentive compensation and replace with actual incentive compensation paid.
14. Adjustment of allocated occupancy costs based on actual usage.
15. Adjustment of allocated information technology costs based on actual usage.
16. Adjustment to remove Unrealized Gains and Losses.
17. Direct assigned costs from other CH2M HILL entities.
18. Adjustment to executive compensation based on AASHTO Guidelines.
19. Adjustment for pre-announcement merger & acquisition costs.
20. Facilities capital cost of money rate is not applicable to the Field Office Indirect cost rate.



**CH2M a Jacobs Company**  
**Statement of Federal Acquisition Regulation Compliant Field Office Indirect Cost Rate**  
**For the Nine Months Ended September 28, 2018**

<b>Field Office Rate</b>				
<b>Payroll Taxes and Fringe Benefits:</b>	<b>General Ledger</b>	<b>Adjustments</b>	<b>Total Claimed</b>	<b>Comments</b>
Payroll Taxes	\$ 4,023,459	\$ (3,960)	\$ 4,019,499	11, 12
Vacation, Holiday & Sick Pay	6,054,625	-	6,054,625	12
Group Insurance and Miscellaneous	3,980,313	10,252	3,990,565	2, 3, 4, 12
Pension Plan	(46,504)	358,336	311,832	3, 12
	<u>\$ 14,011,893</u>	<u>\$ 364,628</u>	<u>\$ 14,376,521</u>	
<b>General and Administrative Expenses:</b>				
Indirect Salaries	\$ 5,624,716	\$ -	\$ 5,624,716	12
Incentive and Retirement Pay	1,076,287	1,170,723	2,247,010	3, 7, 12, 13
Buildings & Equipment	135,524	42	135,566	4, 12
Taxes, Licenses & Insurance	265,013	725,216	990,230	1, 10, 11, 12
Professional Services	3,344,236	(65,238)	3,278,998	1, 4, 12
Travel & Subsistence	882,644	(241,778)	640,866	1, 12
Office Supplies Expense	227,703	(39,540)	188,163	1, 12
Professional Education	65,826	(13,749)	52,077	1, 12
Recruiting Costs	723,346	(240,629)	482,716	1, 12
Printing & Computers	6,932	-	6,932	12
Home Office & Intermediate Allocations	(1,275,896)	11,332,885	10,056,990	1, 4, 5, 6, 8, 12, 14, 15, 16, 17, 18, 19
	<u>\$ 11,076,330</u>	<u>\$ 12,627,933</u>	<u>\$ 23,704,263</u>	
<b>Total Indirect Expenses</b>	<u>\$ 25,088,224</u>	<u>\$ 12,992,560</u>	<u>\$ 38,080,784</u>	
<b>Direct Labor Costs (Base)</b>	<u>\$ 42,170,531</u>	<u>\$ -</u>	<u>\$ 42,170,531</u>	
<b>Field Office Indirect Cost Rate</b>			<u>90.3%</u>	
<b>Facilities Capital Cost Of Money Rate</b>			<u>0.340%</u>	20

**Comments**

1. Unallowable costs removed per the Federal Acquisition Regulations (FAR) Part 31.
2. Post-retirement benefits adjustments per the FAR and the Cost Accounting Standards (CAS).
3. Pension and disability cost adjustments per the FAR and the CAS.
4. Credit to offset overhead expenses with income/reimbursement received and remove overhead charges to affiliates, per FAR 31.201-5.
5. Holding company allocation from CH2M HILL Companies, Ltd.
6. Allocation from CH2M Client Sector Management Home Office.
7. Adjustment for FAR compensation limits.
8. Adjustment to remove unallowable/unclaimed projects.
9. Adjustment to remove fringe benefits allocated to unallowable/unclaimed projects.
10. Adjustment to self-insured professional liability to align to projected average losses per CAS 416.
11. Adjustment of self-insured workers compensation costs to projected average loss per CAS 416.
12. Indirect costs are allocated between Field and Home Office.
13. Adjustment made to remove booked incentive compensation and replace with actual incentive compensation paid.
14. Adjustment of allocated occupancy costs based on actual usage.
15. Adjustment of allocated information technology costs based on actual usage.
16. Adjustment to remove Unrealized Gains and Losses.
17. Direct assigned costs from other CH2M HILL entities.
18. Adjustment to executive compensation based on AASHTO Guidelines.
19. Adjustment for pre-announcement merger & acquisition costs.
20. Facilities capital cost of money rate is not applicable to the Field Office indirect cost rate.

**CH2M HILL, A JACOBS COMPANY**  
(A Division of CH2M HILL, INC., CH2M HILL Constructors, Inc.,  
CH2M Polska Services and CH2M HILL Engineers, Inc.)

Notes to the Schedules of the CH2M Hill Federal Acquisition Regulation Compliant  
Indirect Cost Rates for the Nine Months Ended September 28, 2018

**(1) Business and Operations**

The CH2M Client Sectors, the National Governments Client Sector, the State and Local Governments Client Sector, and the Private Client Sector (collectively, the Divisions) are operating Divisions within CH2M HILL, INC., CH2M HILL Constructors, Inc., CH2M Polska Services and CH2M HILL Engineers, Inc. Each of these companies are wholly owned subsidiaries of CH2M HILL Companies, LTD who is in turn a wholly-owned subsidiary of Jacobs Engineering Group Inc.

As described further in Note 15 below, on December 15, 2017 Jacobs Engineering Group Inc. (Jacobs) acquired all of the assets and operations of CH2M HILL Companies, LTD (CH2M), and the integration of the two company's operations, management and administration began shortly thereafter. In connection therewith, CH2M adopted Jacobs' fiscal year, and accordingly, the indirect costs rates are for the nine-month period ending on September 28, 2018.

The Divisions' predominant line of business is providing engineering and consulting services related to transportation, environmental, and water infrastructures, as well as providing program management services.

The Divisions provide the above services for clients in private industry and federal government agencies, as well as state, municipal, and local government entities primarily in the United States of America. A substantial portion of professional fees arises from projects that are funded directly or indirectly by government entities.

**(2) Basis of Accounting and Description of Accounting System**

The Divisions enter into contracts with the federal government and various state agencies. These contracts prescribe compliance with Title 48 CFR Chapter 1, Part 31 (Federal Acquisition Regulation (FAR), Contract Cost Principles and Procedures).

In preparing the Schedules of the CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates (the Schedules) of the Divisions for the nine months ended September 28, 2018, the Divisions performed an analysis of their accounting and financial records to ensure that the Schedules are prepared in accordance with Title 48 CFR Chapter 1, Part 31 FAR, Contract Cost Principles and Procedures. Accordingly, these calculations and Schedules are not intended to be a presentation in conformity with accounting principles generally accepted in the United States.

The Divisions maintain an accrual basis financial accounting system, and a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a unique job number so that costs may be properly segregated and accumulated in the Divisions' job-order cost accounting system.

**(3) Description of the Overhead Rate Structure**

The Schedules are developed based on company-wide (CH2M HILL, INC., CH2M HILL Constructors, Inc., and CH2M HILL Engineers, Inc.) data, segregated by Division and allocated to the Home Office and Field Office pools. The Home Office pool is utilized for client project performance in CH2M's facilities; the Field Office pool is utilized for client project performance in client offices or client site locations. The base for allocation is direct labor dollars performed within the Home Office and Field Office pools.

**CH2M HILL, A JACOBS COMPANY**  
(A Division of CH2M HILL, INC., CH2M HILL Constructors, Inc.,  
CH2M Polska Services and CH2M HILL Engineers, Inc.)

**Notes to the Schedules of the CH2M Hill Federal Acquisition Regulation Compliant  
Indirect Cost Rates for the Nine Months Ended September 28, 2018**

**(3) Description of the Overhead Rate Structure, cont.**

Other Direct Costs (ODC's) are consistently charged to all projects. All significant costs that can be identified to specific client projects are charged direct. Direct costs are those costs that are identified with or clearly assignable to specific client contracts. Indirect costs are those costs that cannot be directly identified with or assigned to specific client contracts. All costs that are material and that are incurred for the same purpose, in like circumstances, are reported as direct costs only or as indirect costs only with respect to client contracts.

The Corporate Home Office (CH2M HILL Companies, Ltd.), Intermediate Home Office (CH2M HILL Client Sector Management), Occupancy, and Information Technology cost pools are allocated to benefiting Client Sectors, including the Divisions. These allocations are contained within the Schedules and are included as part of the indirect cost rates.

**(4) Service Center Accounting**

The Divisions record the costs of service centers such as fleet vehicles, health and safety, laboratory and testing support, and certain field equipment support centers in separate cost pools. The costs of these services are then charged to activities based on allocation rates developed for each center. These allocation rates do not include profit or interest.

The service centers are charged direct or indirect, depending on the nature of the activity being supported. Charges related to indirect activities, such as accounting, human resources, and other administrative functions, are recorded in an indirect cost pool and included as part of the indirect cost rates. Charges for support of client contracts are consistently recorded as direct costs and excluded from the indirect cost pool, regardless of the client's method of reimbursing such costs.

**(5) Labor Costs**

The Divisions charge labor costs to all projects (direct and indirect) using the employees' actual hourly pay rates, utilizing a 2,080-hour work year. Contract/purchased labor is treated as ODC's; not as employee labor.

**(6) Paid Time off**

Employees accrue paid time off (combined vacation and sick time) based on longevity. The amount that can be carried over from year-to-year is also based on longevity. The Divisions do not provide compensatory time off benefits.

**(7) Overtime**

Employees record all hours worked. Overtime costs are incurred in meeting certain deadlines. Hourly employees who work overtime are compensated at time and a half. The premium portion of overtime pay for hourly employees is charged to the salary variance account and included in the indirect cost pools. Overtime for salaried employees working on client projects is charged to projects at the employees' straight time rate. Salaried employees are compensated at their straight time rate when the sum of the hours worked on client projects is greater than 80 hours for the two-week payroll period. When these criteria are not met, uncompensated overtime for salaried employees related to hours worked in excess of 80 hours is recorded as a reduction in the salary variance account in the indirect cost pools.

**CH2M HILL, A JACOBS COMPANY**  
(A Division of CH2M HILL, INC., CH2M HILL Constructors, Inc.,  
CH2M Polska Services and CH2M HILL Engineers, Inc.)

Notes to the Schedules of the CH2M Hill Federal Acquisition Regulation Compliant  
Indirect Cost Rates for the Nine Months Ended September 28, 2018

**(8) Highly Compensated Employees/Officers**

The Divisions evaluated compensation of senior executives and officers in excess of the FAR 31.205-6(p) limit of \$525,000 per person. Compensation in excess of the limit was excluded from the indirect cost pools.

Additionally, an evaluation of compensation reasonableness as described in the American Association of State Highway and Transportation Officials (AASHTO) Audit Guide Section 7.5, was performed on senior executives and senior managers of CH2M and the Divisions the firm (i.e., vice-president level and above or statutory officers).

Information from independent compensation analysis and surveys was utilized in performing this evaluation: Towers Watson, Mercer, and Pearl Meyer and Partner. As a result of the analysis of executive compensation reasonableness, a total of \$1,986,975 of executive compensation was disallowed from the CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates. Of the disallowed amount, \$1,301,543 was attributable to corporate and intermediate home office costs, and \$685,432 was attributable to the Federal Acquisition Regulation Compliant Indirect Rate pool(s).

**(9) Facilities Capital Cost of Money**

The Facilities Capital Cost of Money (FCCM) rate, as defined by the FAR, for the nine months ended September 28, 2018 is computed in accordance with Cost Accounting Standard (CAS) 414 as follows:

Net Book Value of Assets – Prior Year	\$ 92,245,108
Net Book Value of Assets – Current Year	\$ 49,695,799
Average Net Book Value	\$ 70,970,454
Multiplied by: Average Treasury Rate	2.938%
Equals: Facilities Capital Cost of Money	\$ 2,084,757
Divided by: Direct Labor Cost	\$ 612,322,839
Equals: Facilities Capital Cost of Money Rate	0.340%

**(10) Pension Plans and Deferred Compensation Plans, and ESOPs**

CH2M operates a 401(k) pension plan, meeting the requirements of FAR 31.205(6)j. Matching contributions of 50% to 100% of the first 6% of employees' base pay are made annually. The compensation costs included within the indirect rates were determined based on the cash value of the contributions made.

CH2M has included costs for a defined benefit pension plan that has been frozen since 1993. The costs included in the indirect rates were computed in compliance with Cost Accounting Standard 412, and FAR 31.205(6)j.

**(11) Description of Depreciation and Leasing**

The Divisions calculate their depreciation expense in accordance with the accounting principles generally accepted in the United States wherein fixed assets are capitalized and depreciated over their estimated useful lives. The Divisions utilize the straight-line method of depreciation. The estimated service lives are 3 to 5 years for vehicles and equipment, 5 to 7 years for furniture and fixtures, 3 to 5 years for software and the

**CH2M HILL, A JACOBS COMPANY**  
(A Division of CH2M HILL, INC., CH2M HILL Constructors, Inc.,  
CH2M Polska Services and CH2M HILL Engineers, Inc.)

Notes to the Schedules of the CH2M Hill Federal Acquisition Regulation Compliant  
Indirect Cost Rates for the Nine Months Ended September 28, 2018

**(11) Description of Depreciation and Leasing, cont.**

lesser of the lease term or useful life for leasehold improvements. The Divisions lease office space, vehicles, copy machines and other office equipment under operating leases.

**(12) Home and Field Office Indirect Rate Allocation Method**

The Divisions calculate indirect cost rates for Home and Field Offices separately. Specifically identified indirect costs, which do not benefit the Field Office, have been excluded from the Field Office cost pool, and these costs have been allocated entirely to the Home Office. These costs primarily consist of occupancy-related expenses, including rent, utilities, furnishings, and other office-related costs.

Indirect costs, which benefit the Divisions as a whole, have been allocated to both the Field and Home Office pools using direct labor performed within each of the respective office pools as the basis for allocation.

**(13) Cost Estimation Process**

CH2M HILL, INC. and CH2M HILL Constructors, Inc. methods of estimating costs for pricing purposes during the proposal process were consistent with the accumulation and reporting of costs under the company's job-order cost accounting system. Beginning in 2018, CH2M HILL Engineers, Inc. adopted the same accounting, costing and estimating practices as the other Divisions included in the CH2M Hill Federal Acquisition Regulation Compliant Indirect Cost Rates thereby achieving consistency.

**(14) Acquisition by Jacobs Engineering Group Inc.**

On December 15, 2017, Jacobs' completed its acquisition of CH2M HILL Companies, Ltd. (CH2M) by acquiring 100% of the outstanding shares of CH2M's common and preferred stock. The combined companies had annual revenues of approximately \$15 billion in FY 2018. The acquisition enhances Jacobs' position in the infrastructure, water and transportation markets among other markets. Jacobs and CH2M operated largely as separate, stand-alone companies during FY 2018. That is, each of the companies' respective cost accounting practices and related CAS Disclosure Statements remained in effect during FY 2018. The combination of Jacobs and CH2M has already and will continue to yield significant operational and administrative efficiencies and savings through reductions in personnel, the closure and consolidation of redundant offices, etc.

As a result, the acquisition CH2M is now a wholly-owned subsidiary of Jacobs. The development of the new Buildings and Infrastructure Americas (BIA) operating model and organization structure has been finalized. Management has completed the process of harmonizing the cost accounting practices and finalizing the FY 2019 indirect rate structure. As of September 29, 2018, the CH2M staff and projects are integrated into Jacobs' project accounting systems and indirect rate structure; allowing all of the Jacobs BIA employees to charge projects contracted by either firm. The final step of the accounting consolidation occurred on Jan 1, 2019 when all CH2M legacy personnel payroll was transferred to Jacobs' payroll system.

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**(15) Restructuring and Integration Costs**

In connection with the acquisition of CH2M, both Jacobs and CH2M incurred costs to restructure and integrate their operations and businesses. These costs include severance, office lease termination costs, office relocation and closure costs, certain consulting costs, etc. which CH2M analyzed to determine the allowable costs under FAR Part 31. Accordingly, the Divisions incurred restructuring and integration costs in FY 2018, and it included the allowable portion of these costs, \$2.6M in its FY 2018 indirect rates.

Similarly, the Divisions received allocations of restructuring and integration costs from the Corporate Home Office (CH2M HILL Companies, Ltd.), Intermediate Home Office (CH2M HILL Client Sector Management) in FY 2018 of \$10.0M. Last, the unallowable costs associated with the acquisition have been properly removed from the Company's claimed costs.

For US Department of Defense (DoD) contracting purposes only, Jacobs and CH2M will submit a proposal to the Federal Government for certain Restructuring related costs and then recover those costs on Federal DoD contracts in accordance with the provisions of DFARS 231.205-70 and per agreement with the Federal government.

**(16) Subsequent Events**

The Divisions have evaluated subsequent events through March 28, 2019, the date upon which the Schedules were available for issuance, and there were no significant subsequent events that would have a material effect on the indirect cost rates or that require disclosure.

**(17) Description of Related-Party Transactions**

In accordance with FAR 31.205-36, there were not any related-party transactions that required adjustment or disclosure.

Long Beach Airport  
Long Beach, California  
Taxiway C Rates  
Cost Plus Fixed Fee

Rates for 2019

Title/Category	Personnel	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>Airfield Construction Management Team (at-Site)</b>			<b>80.83%</b>		
<b>Airfield Construction Management Team (office)</b>			<b>105.80%</b>		
Senior Project Executive	Ron Sleccke, PE	\$162.13	\$171.53		\$333.66
Project Manager V	Jesus Moncada	\$108.15	\$114.42		\$222.57
Construction Manager III	Brook Corney	\$88.94	\$71.89		\$160.83
Airfield Inspector IV	Martin Carbullido	\$66.16	\$53.48		\$119.64
Airfield Inspector I	Tony Camarena	\$35.48	\$28.67		\$64.15
CAD Technician I	Joseph Ekl	\$36.06	\$38.15		\$74.21
Project Coordinator I	Ariana Case	\$39.95	\$42.27		\$82.22
Airfield Inspector I	Raj Wani	\$33.65	\$27.20		\$60.85

Rates for 2020

3%

Escalation

Title/Category	Personnel	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>Airfield Construction Management Team (at-Site)</b>			<b>80.83%</b>		
<b>Airfield Construction Management Team (office)</b>			<b>105.80%</b>		
Senior Project Executive	Ron Sleccke, PE	\$166.99	\$176.68		\$343.67
Project Manager V	Jesus Moncada	\$111.39	\$117.86		\$229.25
Construction Manager III	Brook Corney	\$91.61	\$74.05		\$165.66
Airfield Inspector IV	Martin Carbullido	\$68.14	\$55.08		\$123.23
Airfield Inspector I	Tony Camarena	\$36.54	\$29.53		\$66.07
CAD Technician	Joseph Ekl	\$37.14	\$39.29		\$76.43
Project Coordinator	Ariana Case	\$41.15	\$43.54		\$84.68
Airfield Inspector I	Raj Wani	\$34.66	\$28.02		\$62.67

Rates for 2021

3%

Escalation

Title/Category	Personnel	Direct Labor Rate	Overhead	Profit	Total Loaded Rate
<b>Airfield Construction Management Team (at-Site)</b>			<b>80.83%</b>		
<b>Airfield Construction Management Team (office)</b>			<b>105.80%</b>		
Senior Project Executive	Ron Sleccke, PE	\$172.00	\$181.98		\$353.98
Project Manager V	Jesus Moncada	\$114.74	\$121.39		\$236.13
Construction Manager III	Brook Corney	\$94.36	\$76.27		\$170.62
Airfield Inspector IV	Martin Carbullido	\$70.19	\$56.73		\$126.92
Airfield Inspector I	Tony Camarena	\$37.64	\$30.42		\$68.06
CAD Technician	Joseph Ekl	\$38.25	\$40.47		\$78.73
Project Coordinator	Ariana Case	\$42.38	\$44.84		\$87.22
Airfield Inspector I	Raj Wani	\$35.70	\$28.86		\$64.56

Notes:

1. Use 105.80% for Ron, Jesus, Joseph and Ariana
2. Use 80.83% for Brook, Martin, Tony and Raj
3. Above listed rates are based on the overhead rate for Buildings and Infrastructure Americas Design for the Fiscal Year Ended September 29, 2018.
4. Buildings and Infrastructure Americas Design is a Business Unit of Jacobs Engineering Group Inc.
5. Direct Labor Rate is actual compensation for each employee.