DRAFT FIRST AMENDMENT TO CONSULTANT SERVICES AGREEMENT BETWEEN CITY OF SUNNYVALE AND CAROLLO ENGINEERS, INC. FOR DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR THE SECONDARY TREATMENT AND DEWATERING PROJECT

First Amendment to Consultant Services Agreement, dated _____, is by and between the CITY OF SUNNYVALE, a municipal corporation ("CITY"), and CAROLLO ENGINEERS, INC, a Delaware corporation ("CONSULTANT").

WHEREAS, on September 11, 2017, CITY and CONSULTANT entered into a Consultant Services Agreement whereby CONSULTANT would perform professional services necessary for development of a safe and efficient design, preparation of bid documents for Public Works competitive bidding and, construction support for the Secondary Treatment and Dewatering project; and

WHEREAS, the parties now agree that a First Amendment to said Agreement is advisable;

NOW, THEREFORE, THE PARTIES ENTER INTO THIS FIRST AMENDMENT TO CONSULTANT SERVICES AGREEMENT:

1. Services by CONSULTANT

[Replace the first paragraph with the following:]

CONSULTANT shall provide services in accordance with Exhibit "A" entitled “Scope of Work,” Exhibit “A-2” entitled “Additional Scope of Work,” and Exhibit “E” entitled “Preliminary List of Anticipated Drawings.” All exhibits referenced in this Agreement are attached hereto and are incorporated herein by reference. To accomplish that end, CONSULTANT agrees to assign Jim Hagstrom to this project, to act in the capacity of Project Manager and personally direct the professional services to be provided by CONSULTANT.

2. Notice to Proceed/Completion of Services

[Replace paragraph (b) with the following:]

(b) When CITY determines that CONSULTANT has satisfactorily completed the services defined in Exhibit “A,” Exhibit “A-1”, and Exhibit “E,” CITY shall give CONSULTANT written Notice of Final Acceptance, and CONSULTANT shall not incur any further costs hereunder. CONSULTANT may request this determination of completion when, in its opinion, it has satisfactorily completed the Scope of Work (Exhibit “A”), Additional Scope of Work (Exhibit “A-2”), and Preliminary List of Anticipated Drawings (Exhibit “E”) and if so requested, CITY shall make this determination within fourteen (14) days of such request.

4. Payment of Fees and Expenses

[Replace this section with the following:]

Payments shall be made to CONSULTANT on a monthly basis as set forth in the attached Exhibit “B” entitled “Compensation Schedule,” Exhibit B-1 entitled “Additional Compensation Schedule,” and Exhibit “C” entitled “Compensation for Reimbursable Expenditures.” All compensation will be based on

monthly billings, based on hourly rates, as provided in Exhibit "B," Exhibit "B-1," and Exhibit "C". Compensation will not be due until said detailed billing is submitted to CITY within a reasonable time before payment is expected to allow for normal CITY processing. An estimate of the percent of total completion and actual hours completed associated with the various task descriptions of the services shall be furnished by CONSULTANT with said billing. When applicable, copies of pertinent financial records will be included with the submission of billing(s) for all direct reimbursables. Compensation shall not exceed the amounts set forth in Exhibit "B" for each task description total fee, and shall include services as identified in Exhibit "A" in the amount of Fifteen Million Nine Hundred Ninety Five Thousand Three Hundred Thirty Two and No/100 Dollars ($15,995,332.00) for the duration of the contract, as well as optional services in an amount not to exceed One Million Seven Hundred Fifty Thousand Seven Hundred Eighty Four and No/100 Dollars ($1,750,784.00) for the duration of the contract.

In no event shall the total amount of compensation exceed the amount set forth in Exhibit B-1 for each task description total fee, and shall include services identified in Exhibit A-2 in the amount of One Million Two Hundred Seventeen Thousand One Hundred Ninety Two and No/100 Dollars ($1,217,192.00) unless upon written modification of this Agreement executed by both parties.

In no event shall the total amount of compensation payable under this agreement exceed the sum of Eighteen Million Nine Hundred Sixty Three Thousand Three Hundred Eight and No/100 Dollars ($18,963,308.00) unless upon written modification of this Agreement. All invoices, including detailed backup, shall be sent to City of Sunnyvale, attention Accounts Payable, P.O. Box 3707, Sunnyvale, CA 94088-3707.

CONSULTANT will be reimbursed as promptly as fiscal procedures will permit upon receipt by the CITY of itemized invoices in triplicate. Invoices shall be submitted no later than 45 calendar days after the performance of work for which CONSULTANT is billing. Invoices shall detail the work performed on each milestone and each project as applicable. Invoices shall follow the format stipulated in the Compensation Schedule and shall reference the project title. The final invoice must contain the final cost and all credits due CITY. The final invoice should be submitted within 60 calendar days after completion of CONSULTANT's work.

8. Standard of Workmanship

[Replace second paragraph with the following:]

The plans, designs, specifications, estimates, calculations, reports and other documents furnished under Exhibits "A", "A-2", and "E" shall be of a quality acceptable to CITY. The criteria for acceptance of the work provided under this Agreement shall be a product of neat appearance, well-organized, technically and grammatically correct, checked and having the maker and checker identified. The minimum standard of appearance, organization and content of the drawings shall be that used by CITY for similar projects.

All other terms and conditions remain unchanged.

IN WITNESS WHEREOF, the parties have executed this Agreement Amendment.

ATTEST:

By_____
City Clerk

CITY OF SUNNYVALE ("CITY")

By_____
City Manager

CAROLLO ENGINEERS, INC.
("CONSULTANT")

By_____

_____
Name/Title

APPROVED AS TO FORM:

_____
City Attorney

By_____

_____
Name/Title

Rev. 12/5/2019

Exhibit A-2
Additional Scope of Work For Secondary Treatment and Dewatering Preliminary Design and Detailed Design Revisions

A. Preliminary Design Update

Overview

City of Sunnyvale is considering codigestion of food waste from a nearby SMaRT station at the WPCP digestion process. Food waste will contribute additional solids and nitrogen load that will need to be processed in the solids treatment and sidestream treatment facilities, respectively, which are being designed as part of the Secondary Treatment and Dewatering Project.

Available food waste capacity in the Master Plan (baseline) treatment facilities and opportunities for accepting more food waste were evaluated (Task E.20). Based on this evaluation City of Sunnyvale selected an "intermediate" food waste loading scenario and elected a phased approach to accommodating food waste codigestion at the WPCP:

- 20,000 gpd food waste (12% TS) in 2025 increasing to 30,000 gpd food waste (12% TS) by 2035.
- Provide sidestream treatment (e.g., DEMON) with capacity for all of the nitrogen loads generated from dewatering (from wastewater digestion and food waste). Include sidestream treatment capacity for projected 2025, 2030, and 2035 loads in the current project, and provide a plan to accommodate additional expansion of DEMON in 2035 to meet projected future loads consistent with CAS-2 as per the Master Plan.
- Incorporate co-thickening of waste activated sludge (WAS) and primary sludge (PS) in the thickening process to efficiently manage digester solids concentration and increase digestion capacity (i.e., in lieu of recuperative thickening).
- Operate dewatering and solids loadout on a 24 hours per day five days per week basis (24/5).

Before the evaluation of food waste capacity was completed, it was stipulated that digestion is likely to be the limiting process for co-digestion. The analysis however, indicated that there is adequate digestion capacity (with recuperative thickening, or another approach to managing solids concentration in digestion) and instead identified the solids processing facilities and sidestream as limiting, particularly for the intermediate and heavy food waste loading scenarios. The adopted food waste loads represent approximately a 30% increase of solids load to the solids treatment process and 50% increase of nitrogen load to the DEMON process. Consequently, the design basis and preliminary design for these processes is being updated to reflect these changes under Task E.23. These revisions will require completing process modeling for the new loads, developing new mass balances for the design scenarios, and performing calculations to confirm the size of needed treatment facilities.

The following scope of work includes additional activities to revise and incorporate impacts from the additional food waste load on the solids and sidestream treatment facilities into the final design.

B. Detailed Design Update

Overview

This scope of work defines updates to the detailed design tasks to accommodate the following additional facilities into the Secondary Treatment and Dewatering Project:

- Incorporate the impacts from the additional food waste load on the solids and sidestream treatment facilities into the detailed design. The assumed additional facilities required as a result of food waste include:
    - Co-thickening facilities (the RDT feed tank and piping modifications),
    - a sludge blend tank, and
    - a larger sidestream treatment facility.
- Detailed design of the digested sludge storage tank (not included in original scope of work)

CONSULTANT shall include these facilities in the work associated with the following tasks as described in the original Project scope of work:

- B.2 Bay Area Air Quality Management District
- F.1 Base Scope 30% Design
- F.2 Base Scope 60% Design
- F.3 Base Scope 90% Design
- F.4 Base Scope 100% Design
- G.1 Base Scope Bid Package Plans, Specifications, and Cost Estimates
- H.1 Base Scope Bidding Services

Deliverables:

Additional drawings will be required. Refer to attached list.

Attachments:

Drawings List

Element	Discipline	Drawing	Jacobs LOE	Carollo LOE	LOE	Comments
			Added Drawings		In Base Scope	
Thickening/ Co-thickening (added drawings reflect changes to add Co-thickening)	Civil	Civil drawings for the Thickening Process			220	~4 drawings previously scoped for Thickening Process
	Architectural	Architectural drawings for the Thickening Process			480	~8 drawings previously scoped for Thickening Process
	Structural	Structural drawings for the Thickening Process			720	~9 drawings previously scoped for Thickening Process
	Mechanical	Mechanical drawings for the Thickening Process			1170	~13 drawings previously scoped for Thickening Process
	Plumbing	Plumbing drawings for the Thickening Process			540	~6 drawings spreviously coped for Thickening Process
	Electrical	Electrical drawings for the Thickening Process			300	~10 drawings previously scoped for Thickening Process
	I&C	I&C drawings for the Thickening Process			275	~11 drawings previously scoped for Thickening Process For new
	Civil	Yard Piping Details		55		piping/modifications to and from new RDT feed tanks For new
	Civil	Plan and Profile		55		piping/modifications to and from new RDT feed tanks New
	Structural	Foundation Plan	80			foundation for new pump station and new RDT feed tanks New
	Structural	Sections and Details	80			foundation for new pump station and new RDT feed tanks New
	Mechanical	Plan	90			RDT Feed Tanks and Pumps
	Mechanical	Sections and Details 1	90			New RDT Feed Tanks and Pumps
	Mechanical	Sections and Details 2	90			New RDT Feed Tanks and Pumps
	Mechanical	Sections and Details 3	90			New RDT Feed Tanks and Pumps
	Mechanical	Isometric	90			New RDT Feed Tanks and Pumps
	Mechanical	Ventilation/Odor Control	90			Ventilation of New RDT Feed Tanks
	Mechanical	Demolition Area 1	90			Demolition to primary sludge piping in primary Facility/Utilidoor
	Mechanical	Demolition Area 2	90			Demolition to primary sludge piping in primary Facility/Utilidoor
	Mechanical	Sections and Details 1	90			Piping modifications in primary Facility/Utilidoor
	Mechanical	Sections and Details 2	90			Piping modifications in primary Facility/Utilidoor
	Plumbing	Plan/Section/Details (flushing/washdown/drain)	90			For new facility area
	Electrical	Power Plan		30		For new facility area
	Electrical	Lighting Plan		30		For new facility area
	I&C	RDT Feed Tank - P&ID		25		P&ID for New RDT Feed Tanks
	I&C	RDT Feed Pumps - P&ID - 1		25		P&ID for New RDT Feed Pumps
	I&C	RDT Feed Pumps - P&ID - 2		25		P&ID for New RDT Feed Pumps
		Total Sheets	**13**	**7**	**61**	
		Total Hours	**1150**	**245**	**3705**	

There are 20 additional drawings required for the design of the new facilities that are needed for co-thickening primary sludge and WAS that would not be needed if just thickening the WAS (original scope). The additional design effort includes the new RDT feed tanks, venting these tanks to odor control, piping modifications to primary sludge piping, new RDT feed pumps, and other support elements needed for this facility area.

Effort shown in this column is already included in the base scope and not part of this change order request. Listed here for reference.

Element	Discipline	Drawing	Jacobs LOE	Carollo LOE	LOE	Comments
			Added Drawings		In Base Scope	
Sludge Blend Tank	Civil	Yard Piping Details		55		
	Civil	Plan and Profile		55		
	Structural	Foundation Plan	80			Slab on grade PS and above grade tank
	Structural	Sections and Details	80			
	Mechanical	Piping Connections	90			
	Mechanical	Plan	90			
	Mechanical	Sections and Details 1	90			
	Mechanical	Sections and Details 2	90			
	Mechanical	Sections and Details 3	90			
	Mechanical	Isometric	90			
	Mechanical	Ventilation/Odor Control	90			
	Plumbing	Plan (flushing/washdown/drain)	90			
	Plumbing	Section/Details (flushing/washdown/drain)	90			
	Electrical	Power Plan		30		
	Electrical	Lighting Plan		30		
	I&C	Control Panel Elevation		25		
	I&C	PLC Field Network Drawing		25		
	I&C	Sludge Blend Tank - P&ID		25		
	I&C	Digester Feed Pumps P&ID - 1		25		
	I&C	Digester Feed Pumps P&ID - 2		25		
		Total Sheets	**11**	**9**	**0**	
		Total Hours	**970**	**295**	**0**	
There are 20 new drawings required related to the design of the sludge blend tank.					**There is no effort in the base scope related to the sludge blend tank.**	

Element	Discipline	Drawing	Jacobs LOE	Carollo LOE	LOE	Comments
			Added Drawings		In Base Scope	
Sidestream Treatment	Architectural	Upper Plan	60			
	Architectural	Lower Plan	60			
	Architectural	Elevations	60			
	Architectural	Enlarged Plan	60			
	Architectural	Sections/Details	60			
	Structural	SIDESTREAM TREATMENT BOTTOM PLAN			80	
	Structural	SIDESTREAM TREATMENT BOTTOM PLAN (Area 2)	80			
	Structural	SIDESTREAM TREATMENT MIDDLE PLAN			80	
	Structural	SIDESTREAM TREATMENT MIDDLE PLAN (Area 2)	80			
	Structural	SIDESTREAM TREATMENT TOP PLAN			80	
	Structural	SIDESTREAM TREATMENT TOP PLAN (Area 2)	80			
	Structural	SIDESTREAM TREATMENT SECTIONS AND ELEVATIONS - 1			80	
	Structural	SIDESTREAM TREATMENT SECTIONS AND ELEVATIONS - 2			80	
	Structural	SIDESTREAM TREATMENT SECTIONS AND ELEVATIONS - 3			80	
	Structural	SIDESTREAM TREATMENT SECTIONS AND ELEVATIONS - 4			80	
	Structural	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 1			80	
	Structural	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 2			80	
	Structural	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 3			80	
	Structural	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 4			80	
	Structural	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 5			80	
	Structural	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 6			80	
	Structural	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 7			80	
	Mechanical	SIDESTREAM TREATMENT BOTTOM PLAN			90	
	Mechanical	SIDESTREAM TREATMENT BOTTOM PLAN (Area 2)	90			
	Mechanical	SIDESTREAM TREATMENT TOP PLAN			90	
	Mechanical	SIDESTREAM TREATMENT TOP PLAN (Area 2)	90			
	Mechanical	SIDESTREAM TREATMENT PARTIAL PLANS			90	
	Mechanical	SIDESTREAM TREATMENT PARTIAL PLANS (Area 2)	90			
	Mechanical	SIDESTREAM TREATMENT SECTIONS AND DETAILS - 1			90	
	Mechanical	SIDESTREAM TREATMENT SECTIONS AND DETAILS - 2			90	
	Mechanical	SIDESTREAM TREATMENT SECTIONS AND DETAILS - 3			90	
	Mechanical	SIDESTREAM TREATMENT DETAILS - 1			90	
	Mechanical	SIDESTREAM TREATMENT DETAILS - 2			90	
	Electrical	SIDESTREAM TREATMENT POWER PLAN - 1			30	
	Electrical	SIDESTREAM TREATMENT POWER PLAN - 2		30		
	Electrical	SIDESTREAM TREATMENT LIGHTING AND GROUNDING PLAN			30	
	Electrical	DUCT BANK SECTIONS - 14		30		
	I&C	SIDESTREAM TREATMENT 1 - P&ID			25	
	I&C	SIDESTREAM TREATMENT 2 - P&ID			25	
	I&C	SIDESTREAM TREATMENT 3 - P&ID			25	
	I&C	SIDESTREAM TREATMENT 4 - P&ID			25	
	I&C	SIDESTREAM TREATMENT 5 - P&ID			25	
	I&C	SIDESTREAM TREATMENT 6 - P&ID			25	
	I&C	SIDESTREAM TREATMENT 7 - P&ID			25	
		Total Sheets	**11**	**2**	**31**	
		Total Hours	**810**	**60**	**2075**	

There are 13 additional drawings required related to the design of a larger sidestream treatment facility to accommodate food waste.

Effort shown in this column is already included in the base scope and not part of this change order request. Listed here for reference.

Element	Discipline	Drawing	Jacobs LOE	Carollo LOE	LOE	Comments
			Added Drawings		In Base Scope	
Digested Sludge Storage Tank	Architectural	Upper Plan (deck hatches/stairs)	60			
	Architectural	Lower Plan (stairs/canopy)	60			
	Architectural	Elevations (overall)	60			
	Architectural	Enlarged Plan (canopy)	60			
	Architectural	Sections/Details (canopy)	60			
	Structural	Foundation Plan	80			
	Structural	Upper Plan	80			
	Structural	Lower Plan	80			
	Structural	Roof Detail	80			
	Structural	Section and Details 1	80			
	Structural	Section and Details 2	80			
	Structural	Section and Details 3	80			
	Structural	Enlarged Plan (canopy)	80			
	Structural	Sections/Details (canopy)	80			
	Mechanical	Upper Plan	90			
	Mechanical	Lower Plan	90			
	Mechanical	Sections	90			
	Mechanical	Enlarged Plan	90			
	Mechanical	Isometric 1	90			
	Mechanical	Isometric 2	90			
	Mechanical	Isometric 3	90			
	Mechanical	Sections/Details 1	90			
	Mechanical	Sections/Details 2	90			
	Mechanical	Ventilation	90			
	Plumbing	Plan (flushing/washdown/drain)	90			
	Plumbing	Section/Details (flushing/washdown/drain)	90			
	Electrical	Power Plan		30		
	Electrical	Lighting Plan		30		
	I&C	P&ID -- DS Pumping			25	One P&ID already scoped
	I&C	P&ID -- DS Mixing		25		
	I&C	P&ID -- Ventilation/Gas		25		
		Total Sheets	**26**	**4**	**1**	
		Total Hours	**2100**	**110**	**25**	
There are 30 additional drawings required related to the design of the digested sludge storage tank.					**Effort shown in this column is already included in the base scope and not part of this change order request. Listed here for reference.**	

Overall Summary

	Additional Hours	
Facility	**Jacobs LOE**	**Carollo LOE**
Thickening/Co-thickening	1150	245
Sludge Blend Tank	970	295
Sidestream Treatment	810	60
Digested Sludge Storage Tank	2100	110
Total Additional Engineer and CAD Design Hours	**5120**	**710**
Jacobs PM Hours for Design (6 hrs per sheet)	372	

Total Additional Design Hours (Tasks F + G)	**5492**	**710**

Exhibit B-1
Additional Compensation Schedule

City of Sunnyvale Secondary Treatment and Dewatering Project Contract Change

Level of Effort and Fee Estimate for Detailed Design and Construction Support Revisions (Solids Facilities to Accommodate Food Waste)

Date: December 5, 2019

FEE ESTIMATE

Tasks		Carollo													Jacobs			Fugro	ESA	Total
Task #	Task Description	Project Manager	Project Engineer	Other Key or Lead	Liquids / Modeling	Professional	Professional	Assistant Professional	Senior CAD Technician	CAD Technician	Document Processing	Total Hours	Total Labor Costs	ODCs	Total Hours	Total Labor Costs	ODCs	Total Cost	Total Cost	Total Fee
		Jim Hagstrom	Scott Parker	Karl Hadler	Anne Conklin	Ryan Hook/Various	Chris Carvalho	Jamie Pigott	TBD	TBD	TBD									
		$302	$279	$279	$221	$221	$279	$184	$192	$138	$125									
B	Permitting	-	-	-	-	-	-	-	-	-	-	-	$ -	$ -	-	$ -	$ -	$ -	$ 15,000	$ 15,000
B.2	Bay Area Air Quality Management District	-	-	-	-	-	-	-	-	-	-	-	$ -						$ 15,000	$ 15,000
F	Design Development	13	33	66	4	99	95	99	66	172	13	660	$ 137,197	$ 4,116	5,108	$ 896,154	$ 13,437	$ 25,000	$ -	$ 1,075,903
F.1	Base Scope 30% Design	3	7	14	4	21	17	21	14	37	3	142	$ 29,315	$ 879	1,101	$ 196,862	$ 5,906	$ 15,000		$ 247,962
F.2	Base Scope 60% Design	4	9	18	-	27	27	27	18	46	4	178	$ 36,953	$ 1,109	1,374	$ 240,660	$ 4,091	$ 5,000		$ 287,814
F.3	Base Scope 90% Design	5	13	27	-	40	40	40	27	70	5	270	$ 56,175	$ 1,685	2,086	$ 362,024	$ 2,715	$ 5,000		$ 427,600
F.4	Base Scope 100% Design	1	4	7	-	11	11	11	7	18	1	71	$ 14,753	$ 443	547	$ 96,607	725			$ 112,528
G	Final Design	2	5	7	-	-	-	27	-	6	1	50	$ 10,258	$ 308	383	$ 72,887	$ -	$ -	$ -	$ 83,452
G.1	Base Scope Bid Package Plans, Specifications, and Cost Estimates	2	5	7	-	-	-	27	-	6	1	50	$ 10,258	$ 308	383	$ 72,887	$ -			$ 83,452
H	Bidding Services	0	0	1	-	3	-	4	-	-	-	8	$ 1,780	$ 53	59	$ 10,020	$ -	$ -	$ -	$ 11,854
H.1	Base Scope Bidding Services	0	0	1	-	3	-	4	-	-	-	8	$ 1,780	$ 53	59	$ 10,020	$ -			$ 11,854
	Total	16	38	74	4	102	95	130	66	178	14	718	$ 149,235	$ 4,477	5549	$ 979,061	$ 13,437	$ 25,000	$ 15,000	$ 1,186,210
Escalation						**$**							**-**	**$ -**		**$ 30,982**	**$ -**	**$ -**	**$ -**	**$ 30,982**
Total						**$**							**149,235**	**$ 4,477**		**$ 1,010,043**	**$ 13,437**	**$ 25,000**	**$ 15,000**	**$ 1,217,192**

Attachment B
City of Sunnyvale Secondary Treatment and Dewatering Project CH2M/Jacobs Level of Effort and Fee Estimate
Date: December 5, 2019

Tasks		Labor																			ODCs	Total					
Task #	Task Description	Sr.Professional 2	Sr. Professional 2	Sr. Professional 2	Principal Professional 2	Principal-in-Charge		Principal Professional 2		Principal Professional 1	Principal Professional 1	Principal Professional 1	Principal Professional 1	Project Professional 2	Sr. Professional 1	Project Professional 2	Principal Professional 2	Engineerign Technician	Technician	Office/Clerical	Total Hours	Total Labor Costs	Other Direct Costs	Total Fee	Year (Midpoint)	Escalation (%) - Calculated at 2.0% per year to the midpoint of each year	Cost for Escalation (Based on 2.0% per year)	Total Escalated Cost	Task Duration, years
		PM	DM	Architect	QC	Conceptual Design Lead	Controls Lead	Preliminary Design Lead	Solids Technologist		Process/Modeling Lead	Odor Control	Corrosion	Project Engineer														
		Rosinski	Reistad	Kirsten	Various	Sandino	Hoyle	Green	Oerke	Various and Cost Estimating	Lancaster	Cowden	Rod Jackson	Ransom	Various	Various	Cost Manager Broughton	Various	Various	Various								
		$195	$195	$195	$270	$300	$300	$270	$270	$225	$225	$225	$225	$150	$170	$150	$270	$160	$112	$109								
F	Design Development	421	419	47	139	41	6	109	59	651	-	59	59	9	1,164	465	64	233	977	186	5,108	$ 896,154	$ 13,437	$ 909,590	2019	3.01%	$ 27,424	$ 937,014	1.25
F.1	Base Scope 30% Design	88	86	12	29	12	6	27	23	134	-	12	12	9	239	96	28	48	201	38	1,101	$ 196,862	$ 5,906	$ 202,768	2019	3.01%	$ 6,113	$ 208,881	
F.2	Base Scope 60% Design	113	113	18	38	12	-	24	18	175	-	18	18	-	314	125	12	63	263	50	1,374	$ 240,660	$ 4,091	$ 244,752	2019	3.01%	$ 7,379	$ 252,131	
F.3	Base Scope 90% Design	175	175	11	58	11	-	46	11	273	-	23	23	-	487	195	11	98	409	78	2,086	$ 362,024	$ 2,715	$ 364,739	2019	3.01%	$ 10,997	$ 375,736	
F.4	Base Scope 100% Design	44	44	6	15	6	-	12	6	69	-	6	6	-	123	49	12	25	104	20	547	$ 96,607	$ 725	$ 97,332	2019	3.01%	$ 2,935	$ 100,266	
G	Final Design	27	27	-	9	-	-	-	-	42	-	-	-	-	75	30	84	15	63	12	383	$ 72,887	$ -	$ 72,887	2019	4.04%	$ 2,945	$ 75,831	0.50
G.1	Base Scope Bid Package Plans, Specifications, and Cost Estimates	27	27	-	9	-	-	-	-	42	-	-	-	-	75	30	84	15	63	12	383	$ 72,887	$ -	$ 72,887					
H	Bidding Services	3	5	3	1	-	-	-	-	8	-	-	-	-	16	10	-	3	8	3	59	$ 10,020	$ -	$ 10,020	2020	6.12%	$ 613	$ 10,634	0.50
H.1	Base Scope Bidding Services	3	5	3	1	-	-	-	-	8	-	-	-	-	16	10	-	3	8	3	59	$ 10,020	$ -	$ 10,020					
	Total	491	651	50	150	79	6	109	59	701	-	59	59	9	1,254	505	148	250	1,047	201	5,549	979,061	13,437	992,498			30,982	1,023,479	

	Escalation	**$ 30,982**
	Jacobs Total Fee Including Optional Services and Escalation	**$ 1,023,479**

Task #	Fugro	Senior Principal Professional	Associate Engineer	Project Professional	Total Hours	Fugro
		Ron Bajuniemi	Taiming Chen	TBD		
	2019 Rate (with 4% increase from Approved 2017 Rate)	$291.2	$213.2	$171.6		
F.1	Base Scope 30% Design	12	25	36	73	$15,002.0
F.2	Base Scope 60% Design	6	8	9	23	$4,997.2
F.3	Base Scope 90% Design	6	8	9	23	$4,997.2
					Total Fee	$24,996.4

Table 1: Sunnyvale WWTP
ESA Labor Detail and Expense Summary

	Employee Names			**Bailey**			
				Setzler			
		Chris	**Sarah**	**Breanna**			
		Easter	**Patterson**	**Sewell**			
	Labor Category	**Director III**	**Senior Associate**	**Senior Associate II**	***Subtotal***	**Total Hours**	**Labor Price**
Task #	**Task Name/Description**	**$ 240**	**$ 160**	**$ 115**			
1.0	BAAQMD Air Permitting	24	40	23	*$ 14,805*	87.00	$ 14,805
Total Hours		24	40	23	*87*	**87**	
Total Labor Costs		$ 5,760	$ 6,400	$ 2,645	*$ 14,805*		**$ 14,805**
Percent of Effort - Labor Hours Only		27.6%	46.0%	26.4%	*100.0%*	100.0%	
Percent of Effort - Total Project Cost		38.4%	42.7%	17.6%			98.7%

ESA Labor Cost	**$**	**14,805**
Labor Cost Communication Fee		
ESA Non-Labor Expenses		
Reimbursable Expenses	$	196
Subtotal ESA Non-Labor Expe	**$**	**196**
Subconsultant Costs	**$**	**-**
PROJECT TOTAL	**$**	**15,001**