HIGHLINE WATER DISTRICT KING COUNTY, WASHINGTON

RESOLUTION 19-5-15E

RESOLUTION AUTHORIZING AMENDMENT #2 TO CONTRACT #18-60-15 WITH PACE ENGINEERS, INC. FOR ADDITIONAL PROFESSIONAL SURVEYING AND ENGINEERING SERVICES RELATING TO PROJECT 18-2 INTERNATIONAL BLVD AT SR-509 ROAD IMPROVEMENTS

WHEREAS, the District approved Amendment #1 which included additional engineering services with PACE Engineers, Inc. for WSDOT's Phase 1 SR-509 Completion Project and with the Lake to Sound Trail Project; and

WHEREAS, the District requested PACE Engineers, Inc. submit a Scope of Work and Fee Estimate proposal for additional professional surveying and engineering services (referenced as Attachment 1 and incorporated herein); and

WHEREAS, the engineering services tasks included in Amendment 2 are as follows:

Task #	Description					
1	Project Management and Meetings					
2	16" & 8" Bypass West of SR-99 Bridge(UI1 & U13)					
3	Reconnect Water Mains West & East of SR-99 Bridge (UI1-UI3)					
4	New Water Main on S 216th St Bridge (UI33)					
5	8" Water Main Replacement in S 208th St (UI41)					
6	16" Water Main Replacement SW of SR-509 (UI74)					
7	24" Water Main Crossing under SR-509 (UI157)					
8	New 12" Water Main in Tunnel under I-5					
9	New 8" in 34th Avenue S					

WHEREAS, the General Manager and District Engineer reviewed the 5/9/19 Scope of Work and Fee Estimate submitted by PACE Engineers, Inc. and recommend approval of this resolution.

NOW, THEREFORE, BE IT RESOLVED:

- 1. The Board of Commissioners approves Amendment #1 for \$8,500.00 and Amendment #2 to Contract 18-60-15 with RH2 Engineering, Inc., for a not-to-exceed amount of \$110,109.00.
- 2. The General Manager or Designee is authorized to execute Amendment #2 (referenced as Attachment-2 and incorporated herein) for Project 18-2 International Blvd at SR-509 Road Improvements.
- 3. The General Manager and/or the District's legal counsel are authorized to make minor changes to the Amendment if required.

HIGHLINE WATER DISTRICT KING COUNTY, WASHINGTON

RESOLUTION 19-5-15E

ADOPTED BY THE BOARD OF COMMISSIONERS of Highline Water District King County, Washington, at an open public meeting held on this **15th** day of **May 2019**.

Kathleen Quong-Vermeire, President

Todd Fultz, Commissioner

Daniel Johnson, Commissioner

George Landon, Commissioner



May 9, 2019

EXHIBIT A

Mr. Logan K. Wallace, PE Senior Project Engineer Highline Water District 12606 First Ave. South Burien. WA 98168

Subject:

Highline Water District SR-509 Coordination - Contract Addendum No. 2

WSDOT SR-509 Completion Project - Phase 1

Proposal for Additional Professional Surveying & Engineering

Dear Logan,

Thank you for the opportunity to allow us to provide you with a scope and fee for additional surveying and engineering services associated with WSDOT's Phase 1 SR-509 Completion Project based on our current understanding of how the District plans proceed with the design and construction of various conflict resolutions. Overall, the project has taken on a different direction than what was originally foreseen, mainly as a result of the more recent negotiations the District had with both WSDOT and Sound Transit.

The original project scope generally involved preparation of 100% design plans and specifications for a temporary replacement of two existing watermains on the west side, and one existing watermain on the east side of SR-99 near the proposed SR-509 crossing (Phase 1A). Also included in the original scope was a design to hang (3) permanent water mains off the new bridge that was already provided to WSDOT for its design-build project. The scope also included a 100% design for the final reconnection of the bridge pipes to the existing mains in SR-99. Some minimal additional surveying to pick up missing information was also included in the original scope. The total original budget as approved by the District in May 2018 was \$58,870.00.

The original scope was revised in October 2018 when the District approved Contract Amendment No. 1 in the amount of \$8,500 that brought the contract amount to \$67,370.00. Contract Amendment No. 1 generally included two main tasks; providing a review of the Lake to Sound Trail Project to identify utility conflicts and resolutions, and preparing a Pre-Design Report to study all HWD-WSDOT related conflicts other than the Phase 1A SR-99/SR-509 crossing, and to describe conflicts and provide resolutions/alternatives and approximate costs. Both the pre-design report and the trail review have been completed by us to date.

In addition to having finished the pre-design report and the trail review, we have also completed a 30% design for the temporary bypass of the (3) watermains near the future SR-509 bridge crossing (Phase 1A). Most of our recent efforts are beyond the original scope and have been spent attending different monthly and bi-weekly WSDOT meetings to coordinate the relocation of various utilities around the proposed SR-509 work. We also have prepared more detailed

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cost estimates for all HWD-WSDOT conflict resolutions and other proposed new watermain construction and prepared and coordinated easement documents for temporary relocation work.

In the meantime, the WSDOT meetings highlighted many issues that would need to be overcome in order to relocate utilities in advance of SR-509 construction. In fact, several watermain conflicts have been determined to be extremely difficult to construct prior to the SR-509 work because of massive earthwork changes that will be accomplished as part of WSDOT's project work. We understand that because of the anticipated difficulties in both designing and constructing the watermain relocations in advance of the SR-509 work the District had hoped to have WSDOT's Design-Build (DB) Contractor design and construct all of the watermain relocates at the District's expense.

However, the District recently learned that the typical mark-up that WSDOT charges on construction costs for having its DB Contractor design and construct the watermain projects is exceptionally high. The District and WSDOT eventually agreed on a much lower mark-up for utility conflicts for which the District prepares and provides 30% designs to WSDOT.

The current plan is to construct and address one utility conflict in advance in conjunction with a Midway Sewer District project, have WSDOT's DB Contractor handle another conflict that is exceedingly difficult design or construct early, and provide 30% designs for all other conflicts. This proposal therefore is to cover the new professional surveying and engineering services to prepare the necessary 30% and other designs and to provide time/budget to allow PACE to continue and attend the ongoing WSDOT coordination meetings.

The overall scope has been broken down into individual tasks for each utility conflict/re-route site and for project management and meetings. Typical surveying and 30% engineering efforts anticipated for each site/task are described below:

TYPICAL SURVEYING/MAPPING:

Surveying/Mapping for each site (area outlined in attached PDF) shall consist of the following:

- Order design locates and marking of all existing underground utilities (except District watermains District mains expected to be located by HWD).
- Acquire available as-built utility maps from utility providers.
- Conduct research in public records for necessary survey information.
- Tie control points to monuments as required to establish street rights-of-way.
- Set additional control points / benchmarks as needed.
- Show all topographic data within proposed design/construction limits.
- Show contour lines at 2-foot intervals within rights-of-way and easements.
- Show all identified utilities including individual service lines where possible.
- Provide base mapping at scale of 1" = 20'.
- Walk all topo surveys after base maps are complete to verify visible features are noted.



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TYPICAL 30% ENGINEERING:

Engineering services for 30% design(s) shall consist of the following:

- Prepare 30% design of watermain improvements/relocations to address utility conflict.
 Design to include plan and profile sheets at 1" =20' horizontal scale (vertical scale to be determined).
- Site visits to verify existing conditions as needed.
- Standard Details and notes to be provided on the plans. Watermain connection details will also be included as needed.
- Prepare Cost Estimate.
- Provide QA/QC.
- Address one round of District comments.
- Address one round of WSDOT comments.

Not included in engineering services for 30% design(s) are the following:

- TESC Plan
- Traffic Control Plan
- Specifications and Contract Documents
- Permits
- Construction Administration/Inspection/Surveying

Below is our scope of work for the project in which we outline the various tasks involved in the work. Our budget spreadsheet is also included as an attachment to this letter.

Task 1 - Project Management and Meetings

This task is for general project management and meetings relating to the project. More specifically, meetings are mainly to include WSDOT/Sound Transit coordination meetings and plan and specification review meetings with the District at major phases of the design. Time for WSDOT meetings has been estimated by assuming bi-weekly meetings until beginning of August (at which time 30% designs are estimated to be completed) and (3) additional plan review and coordination meetings with the District. It has also been assumed that we will be attending (2) more general coordination meetings with WSDOT in downtown Seattle between now and early August. Total time for each meeting with travel has been estimated at 4-hours each.

General project management, including communication and coordination with the District, WSDOT, Sound Transit and other jurisdictions shall involve internal project administration, review and preparation of invoices & pertinent backup materials, progress reports, responding to general questions and reviewing and coordinating survey updates as necessary.

Estimated Cost of Task 1

\$14,500.00

Task 2 – 16" & 8" Temporary Bypass West of SR-99 Bridge (UI1 & UI3)

This task includes surveying and engineering to design a roughly 500 LF long temporary bypass for an existing 16" and an existing 8" diameter watermain (WM) located on the west side of the



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SR-99 to allow the bridge over SR-509 to be constructed. The design (to be continued from the current 30% plan) shall also simplify the future connection of the new permanent 16" and 8" mains on the bridge to the existing mains in SR-99. Design for a temporary relocation of the existing 12" main on the east side of SR-99 will not be provided, however, the design will include the temporary connection of the 12" main south of the bridge to the existing 8" on the west side. Typical surveying/mapping services have been defined above.

Engineering services shall include the following:

- Prepare design of watermain improvements/relocations. Design to include plan and profile.
- Prepare specifications and contract documents.
- Prepare 60%, 90% and Bid Plans and Specifications for District.
- Conduct site visits to verify existing conditions as needed.
- Provide Standard Details and Notes on the plans. Special watermain connection details will be added as needed.
- Prepare Cost Estimate at all major design stages.
- Provide Traffic Control Plan.
- Prepare TESC Plan.
- Assist with ROW permit.
- Incorporate/combine water project bid documents with Midway Sewer District (MSD) documents and bid both water and sewer as one project. This shall include additional coordination with MSD to address bid package comments.
- Provide QA/QC.
- Address HWD District comments as required.
- Address one round of WSDOT comments.
- Provide bid support for watermain related questions and prepare addenda as necessary.

Not included in engineering services for design are the following:

- Permit fees
- Construction Administration/Inspection/Surveying

Estimated Cost of Task 2

\$30,326.00

Task 3 – Reconnect Watermains West & East of SR-99 Bridge (UI1 – UI3)

This task involves 30% engineering design to permanently reconnect the existing 16" and the existing 8" WM on the west side of SR-99, as well as the existing 12" WM on the east side of SR-99, to the new WMs that will be attached to the bridge. This involves approximately 300 LF of new main to make the reconnections. The 30% design for the reconnection will be based in part on our original 30% design for hanging new mains off the future bridge that was already provided to WSDOT for DB. Typical 30% Engineering is defined above while survey is already covered under Task 2.

Estimated Cost of Task 3

\$7,100.00



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Task 4 - New Watermain on S. 216th ST Bridge (UI33)

This task involves 30% engineering design for roughly 350 LF of new main to be attached to the proposed S. 216th ST bridge and reconnecting the new pipe to the existing system on both ends. Typical 30% Engineering and Survey has beend defined above. Surveying will only cover the approach areas on either side of the bridge. A watermain profile will only be provided for the approach areas.

Estimated Cost of Task 4

\$11,842.00

Task 5 - 8" Watermain Replacement in S. 208th ST (UI41)

Task 5 includes 30% engineering design and survey to relocate and replace 8" WM in S. 208th Street, in the Willow Lake Apartments complex, and in the future 206th ST. A total of roughly 950 LF of 8" WM will be installed. It is assumed that the new main will reconnect to water system in the apartments and also extend into S. 208th to connect to an ex. 8" WM to the east. Typical 30% Engineering and Survey has been defined above. Surveying will cover the area where new main is to be installed, but only elevations will be established in the area of S. 206th Street because existing buildings and utilities that currently in place will be removed prior to road construction.

Estimated Cost of Task 5

\$17.570.00

Task 6 - 16" Watermain Replacement SW of SR-509 (UI74)

This task involves 30% engineering design and survey to relocate and replace an existing 12" AC main with roughly 750 LF of 16" WM in the future gravel pond access road along the southwest side of SR-509. The project area is generally vacant. A total of approximately 900 LF of existing AC main will also need to be shown to be removed because it is in the future cut of SR-509. Typical 30% Engineering and Survey has been defined above. Survey will not be provided for the area where the ex. AC main is to be removed. WSDOT base maps will be used to identify AC water mains that are to be removed.

Estimated Cost of Task 6

\$14,132.00

Task 7 – 24" Watermain Crossing under SR-509 (UI157)

Task 7 30% includes engineering design and survey to replace an ex. 30" WM in a future SR-509 cut area with roughly 525 LF of 24" DI main. Approximately 325 LF of WM under the future SR-509 roadway will be installed in a casing. This WM crossing is the final reconnection to the ex. 30" WM and will be installed before the temporary 24" WM (by Sound Transit) can be abandoned/or removed by others. Typical 30% Engineering and Survey has been defined above. The area on either side of the SR-509 excavation where the new 24" WM is to be connected to



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the existing system will be surveyed. Survey will not be provided for the area that will be excavated for the freeway and WSDOT base maps and DB plans will be used for plan preparation covering those areas.

Estimated Cost of Task 7

\$15,966.00

Task 8 - New 12" Watermain in Tunnel under I-5

This task addresses 30% engineering design and survey to install roughly 1,150 LF of 12" WM between Veteran's Drive and 30th Avenue to provide another I-5 crossing. A significant portion of the new main will be in a tunnel below the pavement. Typical 30% Engineering and Survey has been defined above. Survey will only be provided for the areas between the proposed tunnel and the connection points with the existing system. WM design in the area of the tunnel will be based on WSDOT base maps and DB plans.

Estimated Cost of Task 8

\$14,592.00

Task 9 - New 8" in 34th Avenue S.

This last task includes 30% engineering design and survey to install roughly 1,400 LF of 8" WM between S. 204th ST and S. 208th ST in proposed 34th Avenue S. With the exception of the connection points in S. 204th ST and S. 208th ST nearly all of the proposed WM will be constructed in a new road that will require significant grading. Typical 30% Engineering and Survey has been defined above. Survey will only be provided for the areas in S. 204th ST and S. 208th ST where the new main will be connected to the existing system. WM Design in the area of the new 34th AVE roadway will be based on WSDOT/Sound Transit base maps and DB plans.

Estimated Cost of Task 9

\$11,382.00

Reimbursables & Subconsultants

Reimbursables in amount of \$500 have been estimated for this project. The estimated cost for Utility Locates (Subconsultants) has been estimated at \$6,325.00.

Estimated Cost of Reimbursables and Subconsultants

\$6,825.00

Estimated Budget

We have prepared a budget spreadsheet for this project, which is attached. The total cost to provide all anticipated engineering and surveying services as described herein (including Reimbursables and Subconsultants) has been estimated at \$144,235.00.

Note that the total amount that has been spent working on this project to date (not including field mapping that has started on 5/8/19 - covered under current Task 2 of this amendment) is



Robin Nelson, PE Sr. Principal Engineer

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approximately \$33,244, leaving roughly \$34,126.00 of the originally approved budget. The net budget increase requested by this contract amendment should therefore be \$110,109.00 (\$144,235.00 - \$34,126.00) when taking the remaining budget into account.

We will bill our services on a **Time & Material** basis and propose a **Contract Amendment No. 2 budget increase** in the amount of \$110,109.00 to complete the above activities. The revised total estimated budget for this project is therefore \$177,479.00. We will not bill beyond the approved contract amount without prior approval by the District. All billings will be at our approved 2019 District rates.

Again, we appreciate the opportunity to present this proposal and hope that it meets the needs of the District. Please feel free to call me if you have any questions.

Sincerely,

PACE Engineers, Inc.

Peter Paulsen, PE Sr. Project Manager

Attachments

PACE

EXHIBIT B

PACE Engineers

Project Budget Worksheet - 2019 Municipal Rates

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Project Name	9	SK-SUS WE	CELLINAIN KEIO	SK-Sty watermain Relocation - CA No. 2	7.7	-Coanoli-		AL DUMBER IN	ATOL DISORDE					I
Project #	#	18434		Billing Group #:			Task #.				Date:	5/8	5/9/2019	
				-		Labor H	Labor Hours by Classification	Meatlon						
	Labor	,	-	ŧ	×	23	16		40	4	54	9 9		
otali iype # (oee Labor Rates Table) Staff Two Hourly Rate		\$230	\$195	\$125	\$115	\$150	\$104		\$195	\$182	\$115	\$195		
	gol	Job Senior Principal	Sr. Project				Project		Sr. Principal	Principal		Two-Person		
Drawing/Task Title	Tiffe	Engineer	Manager	Engineer II	CAD Tech II	Sr. Planner	Administrator		Surveyor	Surveyor	Survey Tech IV	Crew	면	Total
Task 1	ļ													
Project Management	Į	2	32											34.0
Meetings			40						INIMAK					40.0
Task 2 - 16" & 8" Temporay Bypass West of SR-99 Bridge - 100% Design/Specs		*	9	32	32	4	8		2	12	74	32		<u>4</u>
Task 3 - Reconnect Watermains West & East of SR-99 Bridge - 30% Design		4	12	9	16									48.0
Task 4 - New Watermain on S 216th Street Brige - 30% Design	!	4	12	9	16	İ			2	9	80	12		76.0
Task 5 - 8" Waterman Replacement in S. 208th ST - 30% Design		4	16	82	82				2	10	16	24		112.0
Task 6 - 16* Watermain Replacement SW of SR-509 - 30% Design		7	16	20	20				2	9	10	16		92.0
Task 7 - 24" Watermain Crossing under SR-509 - 30% Design	i	4	5	20	82				2	80	12	20		102.0
Task 8 - New 12" Watermain in Tunnel under I-5 - 30% Design		4	9	8	20				7	9	9	16		94.0
Task 9 - New 8" Watermain in 34th AVE S 30% Design		2	12	16	91				2	9	80	12		74.0
												İ		İ
	III													
Hours Total		34.0	212.0	160.0	160.0	4.0	8.0		14.0	54.0	88.0	132.0		866.0
Labor Total		\$7,820	\$41,340	\$20,000	\$18,400	\$600	\$832		\$2,730	\$9,828	\$10,120	\$25,740	\$137,	\$137,410.00

	\$5,500					5,500.00	15%	\$6,325.00
Subconsultants	Utility Locate	Mechanical Engineer	Electrical Engineer	Geotechnical Engineer	I & C Engineer	Subconsultant Subtotal	Markup	Total
	1					_		
able	Cost					\$500.00		\$500.00

Total

echnology Fee (2% of labor)

Iscellaneous

Photo/Video Mileage/Trave/Per Diem

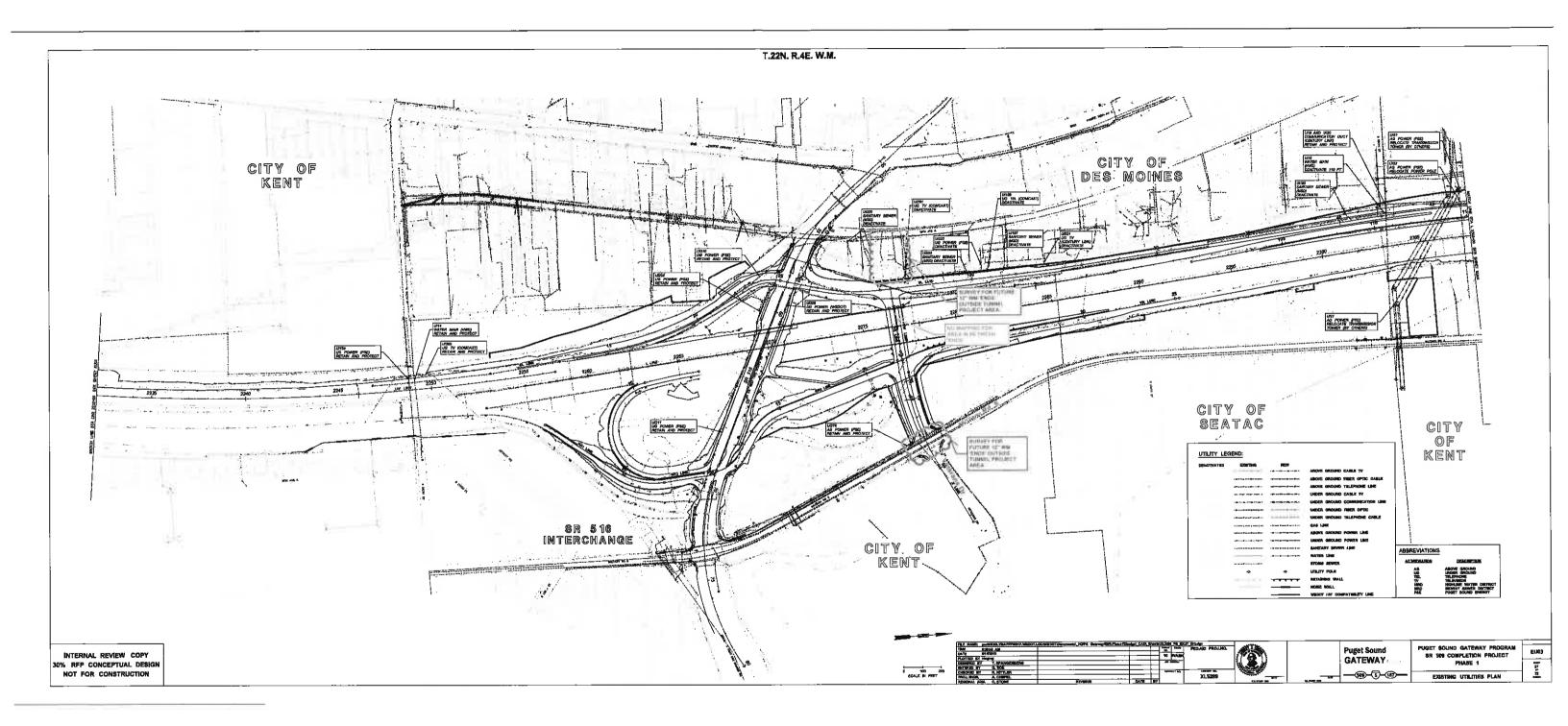
Postage/Courrer

Expenses

Reimbursable Quantity Co

rate/unit

\$137,410.00	\$500.00	\$6,325.00	\$144,235.00
PACE Billed Labor Total	Reimbursable Expenses	Subconsultants	Total Project Budget



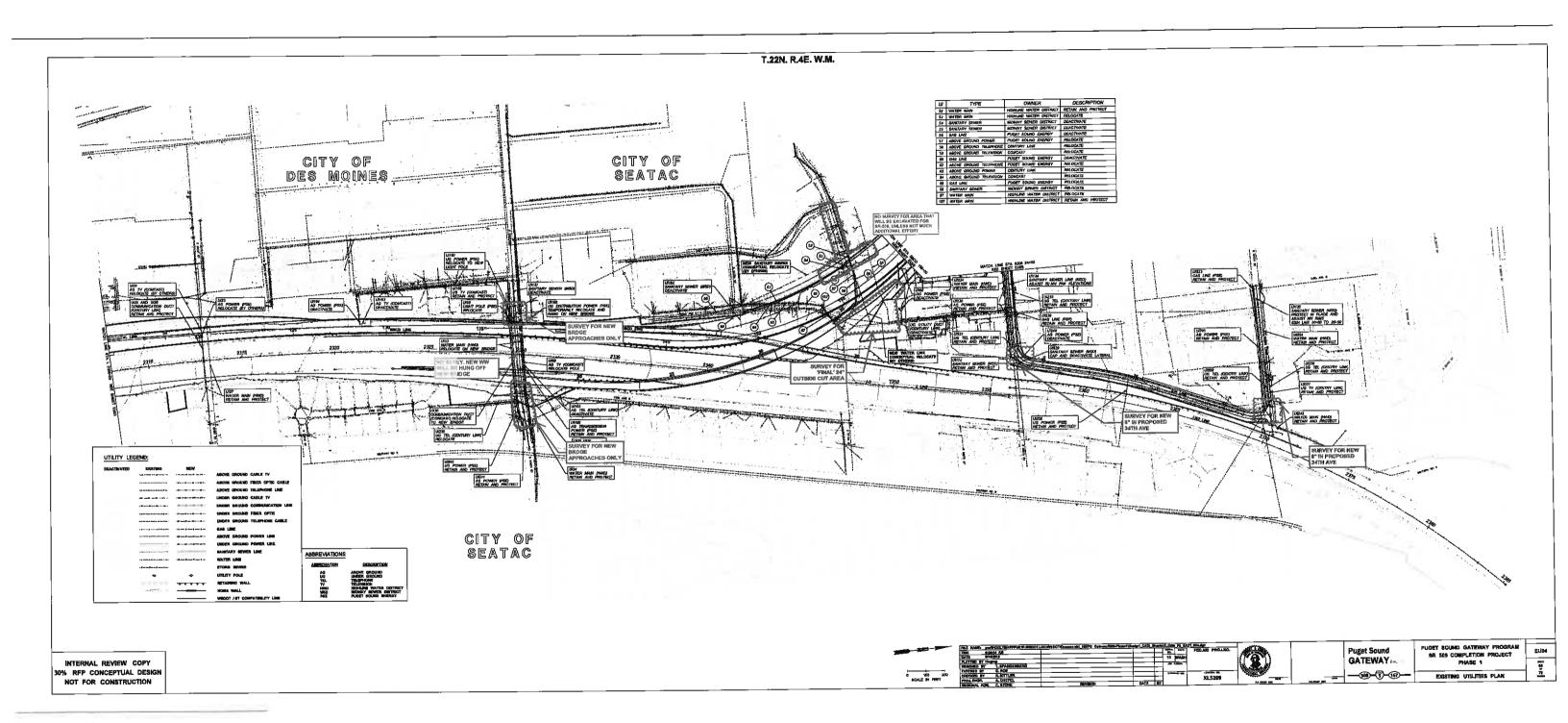
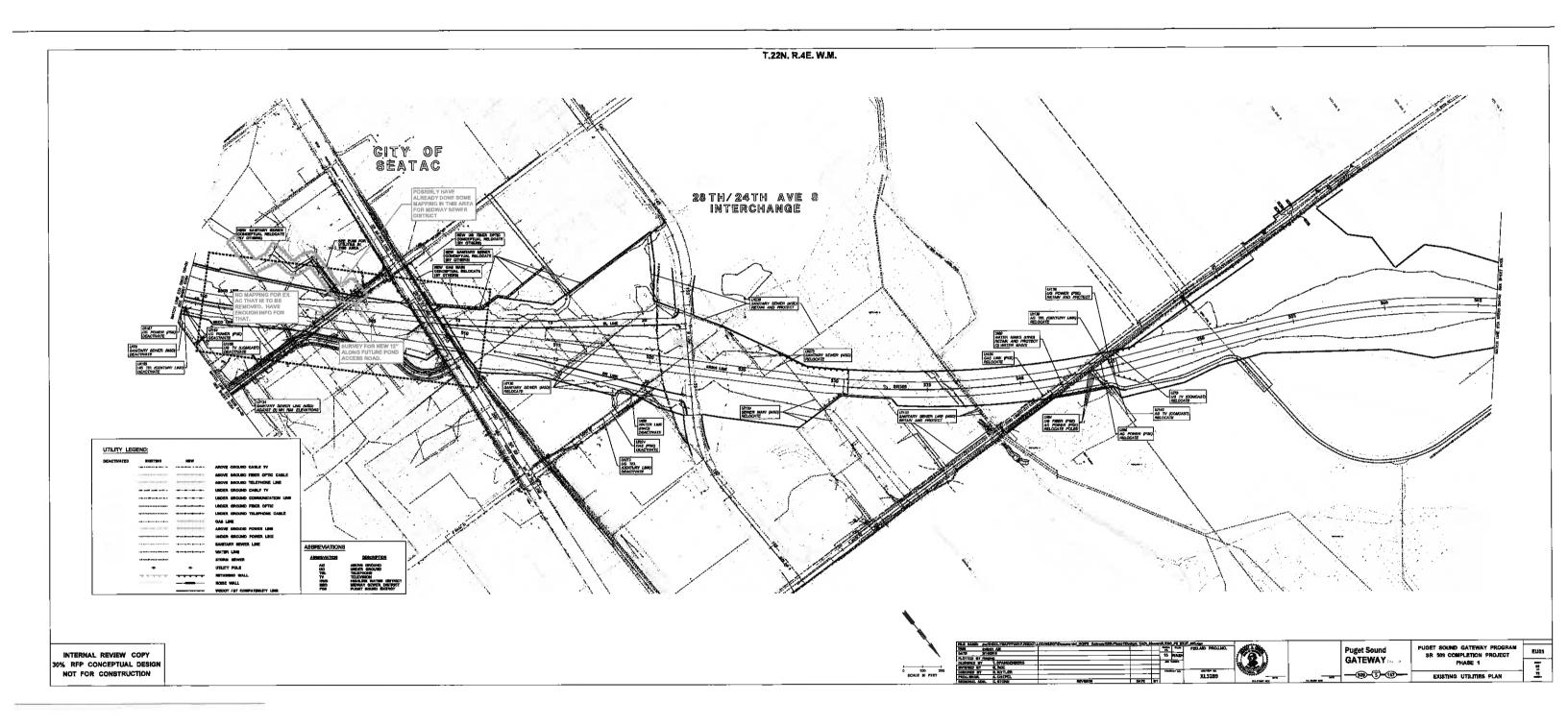
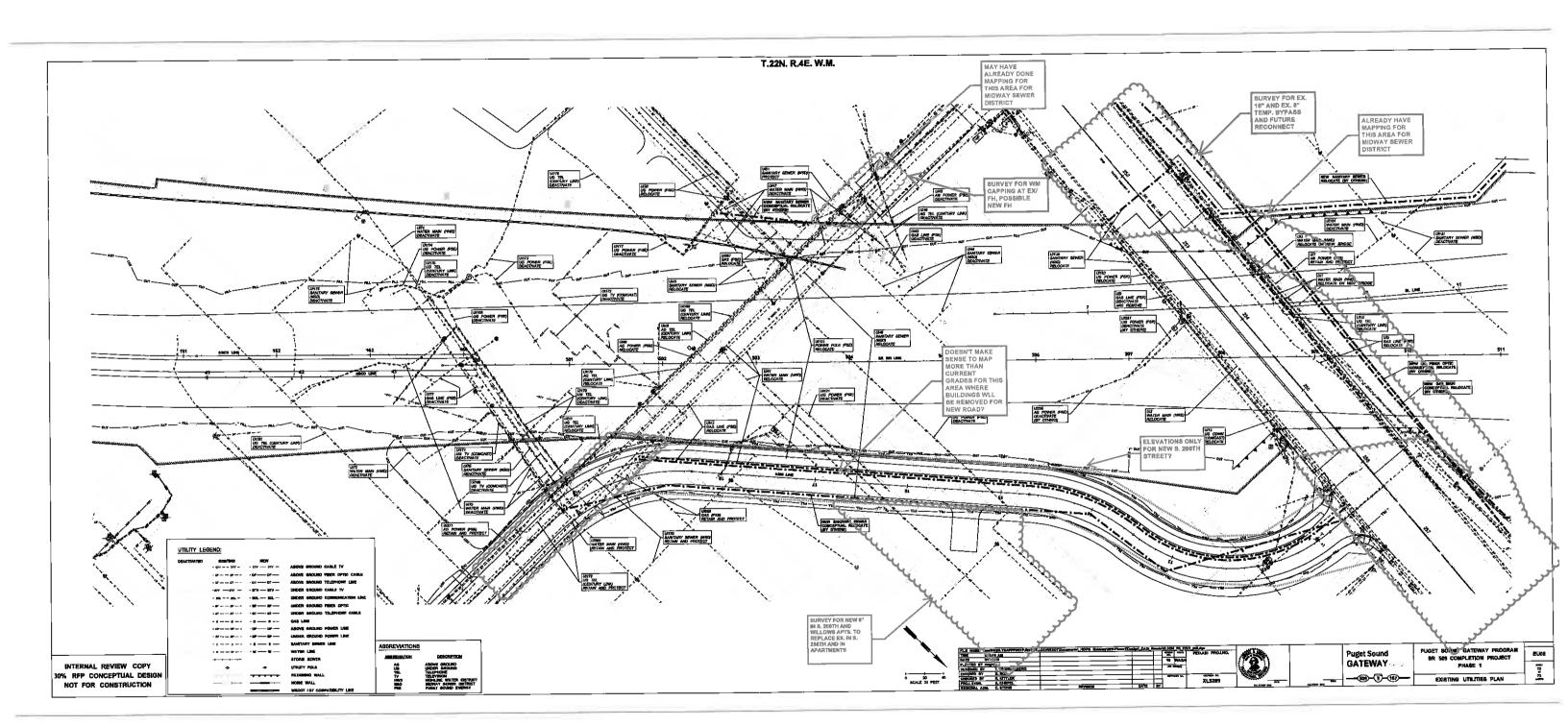


EXHIBIT C3







AMENDMENT #2

CONSULTANT AGREEMENT FOR SERVICES PACE ENGINEERS, INC. – CONTRACT #18-60-15

PROJECT 18-2 INTERNATIONAL BLVD AT SR-509 ROAD IMPROVEMENTS

At the request of the District, Pace Engineers, Inc. will undertake the work on a timeand-materials basis as described in their Scope of Services (Exhibits A and C1, C2, C3, C4) and Estimated Costs (Exhibit B) for additional professional surveying and engineering services associated with WSDOT's Phase 1 SR-509 Completion Project.

The current contract amount is \$67,370.00. The estimated cost for these additional services is not to exceed \$110,109.00 without prior written approval by the District. The revised contract amount is \$177,479.00. The same standard general terms and conditions will apply as agreed to in Contract #18-60-15 dated 5/24/18.

Effective Date. The effective date of this Amendment shall be the date signed by an authorized representative of the District.

	HIGHLINE WATER DISTRICT		PACE ENGINEERS, INC.
Ву:		Ву:	
	Matt Everett	-	Martin L. Penhallegon, PE
Title:	General Manager	Title:	President
Date:		_ Date:	

			Agenda Item No. Agenda Date Reviewed By	: 05/15/19
		- PACE Engineers, In Slvd at SR-509 Road	c Contract #18-60-15 Improvements	
CATEGORY			FINANCIAL	
Executive		Expenditures?	Yes x No	N/A
Administrative		Budgeted?	Yes x No	N/A
Engineering/Operations	x		Estimated Amount: \$	110,109.00 Excludes sales tax

ATTACHMENTS:

- Resolution 19-5-15E
 w/Attachment 1: Scope of Work and Fee Estimate Exhibit(s) A, B and C1, C2, C3 and C4
- 2. Attachment 2: Amendment #2

COMMENTS:

The District requested PACE Engineers, Inc. submit a Scope of Work and Fee Estimate proposal for the following additional professional surveying and engineering services:

Task #	Description
1	Project Management and Meetings
2	16" & 8" Bypass West of SR-99 Bridge(UI1 & U13)
3	Reconnect Water Mains West & East of SR-99 Bridge (UI1-UI3)
4	New Water Main on S 216th St Bridge (UI33)
5	8" Water Main Replacement in S 208th St (UI41)
6	16" Water Main Replacement SW of SR-509 (UI74)
7	24" Water Main Crossing under SR-509 (UI157)
8	New 12" Water Main in Tunnel under I-5
9	New 8" in 34th Avenue S

The General Manager and District Engineer have reviewed the 5/9/19 Scope of Work and Fee Estimate and recommend approval of this resolution.