



American Samoa Power Authority

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# **PAVAIAI TO FUTIGA AC Pipe Replacement Project**

## **Scope of Work**

This project will insure these AC pipes which are brittle and leaking a lot of water, and pose a safety and health threat, are replaced. The Project will also improve the water pressure in most areas of the islands and assure protection of drinking water from contaminant intrusion into the system and sustain safe, quality drinking water for the community as well as staying in compliance with requirements by EPA.

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### **Section 1: Inspection of Work Site**

1. The Contractor is expected to visit and thoroughly inspect the Project Site and become familiar with field conditions including accessibility and physical obstructions.
2. Familiarize itself with the survey, including the location of all existing buildings, utilities, conditions, street, equipment, components and other attributes having or likely to have an impact on the Project;
3. Should there be omissions or discrepancies in the plans and specifications, or discrepancies from actual site conditions, bring them to the attention of the ASPA Procurement Manager ten (10) working days in advance of the date of bid opening so that corrections or clarifications can be made.
4. Bid submission indicates familiarity with, and acceptance of, field conditions. No claim for additional compensation will be allowed which is based upon a misunderstanding or lack of knowledge, examination, inspection and/or testing of any of the above items by the Offeror.

### **Section 2: Mobilization and Demobilization .**

The work consists of the mobilization and demobilization of the contractor's forces and equipment necessary for performing the work required under the contract. It does not include mobilization and demobilization for specific items of work for which payment is provided elsewhere in the contract.

Mobilization shall include all activities and associated costs for transportation of contractor's personnel, equipment, and operating supplies and expenses to the site; permits, premiums paid for performance and payment bonds including coinsurance and reinsurance agreements as applicable; and other items specified in the contract documents.

Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not required or included in the contract from the site; including the disassembly, removal, and site cleanup of offices, buildings, and other facilities assembled on the site specifically for this contract.

Measurement for payment shall be made as a lump sum (LS). Payment will be made as the work proceeds, after presentation of paid invoices or documentation of direct costs by the contractor showing specific mobilization and demobilization costs and supporting evidence of the charges of suppliers, subcontractors, and others. When the total of such payments is less than the lump sum contract price, the balance remaining will be included in the final contract payment. Payment of the lump sum contract price for mobilization and demobilization will constitute full compensation for completion of the work. Payment will not be made under this item for the purchase costs of materials having a residual value, the purchase costs of materials to be incorporated in the project, or the purchase costs of operating supplies.

### **Section 3: Temporary Facilities and Controls**

The work shall consist of Temporary facilities and the necessary controls for the project including utilities, telephone, sanitary facilities, field office conducive to site meetings, storage sheds and building, safety requirements, first aid equipment, fire protection, security measures, protection of the Work and property, access roads and parking, environmental controls, disposal of trash, debris, and excavated material, pest and rodent control, water runoff and erosion control.

Measurement for payment shall be made as a lump sum (LS). Full compensation includes a lump sum cost for all equipment, labor, and materials. Payment will be made as the work proceeds, after presentation of paid invoices or documentation of direct costs by the contractor showing specific costs and supporting evidence of the charges of suppliers, subcontractors, and others. When the total of such payments is less than the lump sum contract price, the balance remaining will be included in the final contract payment. Payment of the lump sum contract price will constitute full compensation for completion of the work

### **Section 4: Potholing**

The work shall consist of potholing existing underground utilities prior to construction. The Contractor shall perform exploratory excavations as required to collect as-built information. The Contractor shall verify the depth, location, alignment, size, and material of existing underground utilities or structures either specifically called for or not on the plans. Locate the existing utility, verify the required information, backfill the excavation, and restore the surfacing to a temporary condition, suitable for traffic as required. All data should be recorded and included in the as-built drawings.

The Contractor shall use the information obtained under this section to confirm construction/installation can be carried out as per design and specifications, otherwise the contractor is expected to utilize its utmost efforts and expertise to make changes at no additional cost and for ASPA approval. Contractor's proposal to alter/revise the design should minimize the overall cost. The contractor shall waive ASPA from any liabilities resulting from inaccuracy and poor data gathering required under this section.

Measurement for payment shall be made as a lump sum (LS). Full compensation includes a lump sum cost for all equipment, labor, and materials. Payment will be made as the work proceeds, after presentation of paid invoices or documentation of direct costs by the contractor showing specific costs and supporting evidence of the charges of suppliers, subcontractors, and others. When the total of such payments is less than the lump sum contract price, the balance remaining will be included in the final contract payment. Payment of the lump sum contract price will constitute full compensation for completion of the work

### **Section 5: Water Transmission and Distribution Mains (PVC/DI PIPES)**

This section shall cover the complete costs of providing all labor, equipment and materials (not supplied by ASPA) required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete. This Section includes installation of water mains to the lines and grades indicated on the drawings. This includes but not limited to survey and as-built recording, notification of

and coordination with the public/Landowners, cut/fill/embankment, site clearing/demolition/relocation/saw cutting of existing asphalt/concrete pavement, sidewalk, curb & gutter, gravel driveway, fences, rockwall, plants/grass, trees, power/communication line and pole other utilities and structures, haul/disposal of waste materials, crop damage payment, excavation/trenching, dewatering, Jacking and Bore Pipe under existing wall/structure, shoring/sheet piling, pipe bedding & compaction, slope/alignment checking and realigning, pipe laying including all necessary fittings, valves and appurtenances, thrust block, pipe casing/anchoring and RC Jacketing, bridge crossing, backfilling, filter fabric envelope, tracer wire and loop box, warning tape, restrained harness, electronic marker, and restore surfacing to a temporary condition, suitable for traffic as required. This also includes decommissioning of existing AC pipes and shall be incidental to this section.

Measurement for payment shall be in linear feet (LF). Contractor shall be paid regardless of quantity and types of pipes & fittings and appurtenances, alignment and depth with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

#### **Section 6: Fire Hydrant Assembly**

This section shall cover the complete costs of providing all labor, equipment and materials (not supplied by ASPA) required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete and shall include, but not be limited to the following: information dissemination to stakeholders, excavation, cut/fill/embankment, dewatering, haul/disposal of waste materials, installation, laying and joining of pipe fittings and appurtenances, angle fire hydrant valve, gate valve and box, hydrant wrench, gate valve key, bedding, placement and compaction of bedding and backfill materials, miscellaneous concrete, bollard, protection of existing utilities, cleaning, testing, and any other items necessary to accomplish the work. This also includes decommissioning/removal of existing fire hydrants and it shall be incidental to this section.

Measurement shall be per each (EA). Contractor shall be paid regardless of quantity and types of pipes & fittings and appurtenances, alignment and depth with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

#### **Section 7: ARV Assembly**

This section shall cover the complete costs of providing all labor, equipment and materials (not supplied by ASPA) required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete and shall include, but not be limited to the following: information dissemination to stakeholders, excavation, cut/fill/embankment, dewatering, haul/disposal of waste materials,

installation, laying and joining of pipe fittings and appurtenances, air release combination valve, fittings, marker posts, double strap saddle, corporation stop, bedding, placement and compaction of bedding and backfill materials, miscellaneous concrete, bollard, protection of existing utilities, cleaning, testing, and any other items necessary to accomplish the work. This also includes decommissioning/removal of existing ARV and it shall be incidental to this section.

Measurement shall be per each (EA). Contractor shall be paid regardless of quantity and types of pipes & fittings and appurtenances, alignment and depth with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

### **Section 8: PRV-InLine Meter Assembly**

This section shall cover the complete costs of providing all labor, equipment and materials (not supplied by ASPA) required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete and shall include, but not be limited to the following: information dissemination to stakeholders, excavation, cut/fill/embankment, dewatering, haul/disposal of waste materials, installation, laying and joining of pipe and fittings, valves, meters and appurtenances, vault, gate valve key, boxes, thrust blocks bedding, placement and compaction of bedding and backfill materials, miscellaneous concrete, bollard, protection of existing utilities, cleaning, testing, and any other items necessary to accomplish the work. This also includes decommissioning/removal of existing PRV and it shall be incidental to this section.

Measurement shall be per each (EA). Contractor shall be paid regardless of quantity and types of pipes & fittings and appurtenances, alignment and depth with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

### **Section 9: TIE-IN**

This section shall cover the complete costs of providing all labor, equipment and materials (not supplied by ASPA) required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete and shall include, but not be limited to the following: information dissemination to stakeholders, water shutdown notice/ads, excavation, cut/fill/embankment, dewatering, haul/disposal of waste materials, installation, laying and joining of pipe, valves and fittings and appurtenances, bedding, placement and compaction of bedding and backfill materials, miscellaneous concrete, protection of existing utilities, cleaning, testing, and any other items necessary to accomplish the work.

Measurement shall be per each (EA). Contractor shall be paid regardless of quantity and types of pipes & fittings and appurtenances, alignment and depth with the

applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

### **Section 10: Inter-connection**

This section shall cover the complete costs of providing all labor, equipment and materials (not supplied by ASPA) required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete and shall include, but not be limited to the following: information dissemination to stakeholders, excavation, cut/fill/embankment, dewatering, haul/disposal of waste materials, installation, laying and joining of pipe and fittings, valves and appurtenances, bedding, placement and compaction of bedding and backfill materials, miscellaneous concrete, protection of existing utilities, cleaning, testing, and any other items necessary to accomplish the work.

Measurement shall be per each (EA). Contractor shall be paid regardless of quantity and types of pipes & fittings and appurtenances, alignment and depth with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

### **Section 11: Utility Crossing**

This section shall cover the complete costs of providing all labor, equipment and materials (not supplied by ASPA) required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete and shall include, but not be limited to the following: information dissemination to stakeholders, excavation, cut/fill/embankment, dewatering, haul/disposal of waste materials, installation, laying and joining of pipe, fittings, valves and appurtenances, bedding, placement and compaction of bedding and backfill materials, miscellaneous concrete, concrete jacketing, protection of existing utilities, cleaning, testing, and any other items necessary to accomplish the work.

Measurement shall be per each (EA). Contractor shall be paid regardless of quantity and types of pipes & fittings and appurtenances, alignment and depth, concrete volume with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

### **Section 12: Service Stub Out**

This section shall cover the complete costs of providing all labor, equipment and materials (not supplied by ASPA) required to complete the work specified in the contract documents either specifically called for or not on the plans. Shall include works from

water mains with service saddle to curb stop locations, in-place complete. Connection from a 2" PVC Sch 80 loop to curb stop shall be included in section 13 and is not included in this section.

Measurement shall be per each (EA). Contractor shall be paid Contractor shall be paid regardless of quantity and types of pipes & fittings, alignment and depth with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

### **Section 13: Water Laterals (PVC SCH 80 PIPES)**

This section shall cover the complete costs of providing all labor, equipment and materials (not supplied by ASPA) required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete. This includes but not limited to survey and as-built recording, notification of and coordination with the public/Landowners, cut/fill/embankment, site clearing/demolition/relocation/saw cutting of existing asphalt/concrete pavement, sidewalk, curb & gutter, gravel driveway, fences, rockwall, plants/grass, trees, power/communication line and pole other utilities and structures, haul/disposal of waste materials, crop damage payment, excavation/trenching, dewatering, Jacking and Bore Pipe under existing wall/structure, shoring/sheet piling, pipe bedding & compaction, slope/alignment checking and realigning, pipe laying including all necessary fittings and appurtenances, curb stop, valves, thrust block, pipe casing/anchoring and RC Jacketing, bridge crossing, backfilling, filter fabric envelope, warning tape, electronic marker, cleaning, flushing and pressure/leak testing. This also includes decommissioning/removal of service lines and it shall be incidental to this section.

Measurement for payment shall be in linear feet (LF). Contractor shall be paid regardless of quantity and types of pipe, valves, fittings and all appurtenances, alignment and depth with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements and test reports shall be included as an attachment to pay application requests.

### **Section 14: METER RELOCATION**

This section shall cover the complete costs of providing all labor, equipment and materials required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete. It shall be the responsibility of the contractor to schedule disruption of services to the building owners at a minimal time not longer than 1 hour. Contractor must coordinate with ASPA Customer service and secure service order for the relocation of existing meters and pay for all related costs. Only ASPA crew is allowed to relocate water meters.

Measurement shall be per each (EA). Contractor shall be paid regardless of quantity and types of pipes & fittings, alignment and depth with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed

from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

#### **Section 15: PRESSURE & LEAKAGE TESTING**

This section shall cover the complete costs of providing all labor, equipment and materials required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete.

Measurement shall be per each (EA) testing of 1000 linear feet of water mains. Contractor shall be paid regardless of the number of testing trials until it passes standards with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

#### **Section 16: CANCO BOOSTER STATION**

This section shall cover the complete costs of providing all labor, equipment and materials required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete.

Measurement for payment shall be made as a lump sum (LS). Full compensation includes a lump sum cost for all equipment, labor, and materials. Payment will be made as the work proceeds, after presentation of paid invoices or documentation of direct costs by the contractor showing specific costs and supporting evidence of the charges of suppliers, subcontractors, and others. When the total of such payments is less than the lump sum contract price, the balance remaining will be included in the final contract payment. Payment of the lump sum contract price will constitute full compensation for completion of the work

#### **Section 17: FLUSHING & DISINFECTION**

This section shall cover the complete costs of providing all labor, equipment and materials required to complete the work specified in the contract documents either specifically called for or not on the plans, in-place complete.

Measurement shall be per each (EA) disinfection of 1000 linear feet of water mains. Contractor shall be paid regardless of the number of disinfection trials until it passes EPA standards with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

#### **Section 18: Restoration**

This section shall cover the complete costs of providing all labor, equipment and materials required to complete the work specified in the contract documents either specifically called for or not on the plans. The Contractor shall take necessary precautions to prevent damage to existing structures whether on the surface, aboveground, or



underground. An attempt has been made to show major structures on the Drawings. The completeness and accuracy of the information shown cannot be guaranteed, and it is presented simply as a guide to avoid known possible difficulties.

**A. Roadside Restoration:** The contractor shall provide restoration in all areas outside the roadway which are impacted by construction activities. Restoration work shall meet or exceed the original condition to the satisfaction of the property owner involved at the Contractor's own expense. Roadside Work Plan shall be submitted to the Engineer for review prior to the start of construction. The plan shall include photographs of areas to be disturbed in their original state and an itemized list of materials to be provided including the location of installation. Property owners adjacent to areas of roadside restoration shall be notified of the type and timing of work no less than ten working days prior to any disturbance.

No measurement is to be made for roadside restoration. All costs for roadside restoration shall be considered incidental to the construction and shall be included in the costs of other items of the work involved in the project.

**B. Asphalt and Concrete Pavement Restoration:** The contractor shall provide restoration in all roadways which are impacted by construction activities. Restoration for AC Pavement shall be full lane, trench width repair is not allowed. Contractor shall maximize the use of one full lane if alignment is designed in both lanes of the road. Restoration work shall meet or exceed the original condition to the satisfaction of the Department of Public Works. This includes but not limited to furnishing and placing of aggregate base course, prime and asphaltic tack coats, concrete, markings and all other features for roads, sidewalks, curbs and gutters and all necessary testing.

Measurement shall be at the unit price bid per square yard (SY) in place complete. Contractor shall be paid with the applicable unit price tendered not to exceed the amount for the actual quantity incorporated in or removed from the work and such quantities must be supported by field measurement statements verified and signed by ASPA representative. Signed statements shall be included as an attachment to pay application requests.

## **Section 19: Permits**

Contractor shall be responsible for obtaining all necessary permits and other governmental approvals necessary for the development of the Project and shall obtain the same at the times necessary to meet the Project schedule. This includes but not limited to; Staging area (DOC), Traffic control (DPS), Erosion and Sedimentation Control (ASEPA), Road Cutting and Excavation (DPW) and all others.

No measurement is to be made for this section. All costs for securing permits shall be considered incidental to the construction and shall be included in the costs of other items of the work involved in the project.

## **Section 20: Archaeological Monitoring**

The Contractor shall immediately notify the APE if any artifacts, skeletal remains or other archaeological resources are unearthed during excavation or otherwise discovered on the site of the work. If directed by the APE, the Contractor shall immediately suspend any construction activity as needed. The suspension of Work shall remain in effect until permission to proceed has been obtained by the APE from the ASPA Archaeologist, ASPHO or private landowner, as applicable. If further site investigation, testing and/or approval is needed, requirement under “Testing” of this SOW shall apply.

No measurement is to be made for this section. All costs shall be considered incidental to the construction and shall be included in the costs of other items of the work involved in the project.

### **Section 21: Request For Information (“RFI”)**

If the Contractor determines that some portion of the drawings, specifications or other Contract Documents require clarification or interpretation because of an apparent error, inconsistency, omission, or lack of clarity in the Contract, the Contractor shall promptly submit a Request For Information (“RFI”) and, unless otherwise directed, shall not proceed with the affected Work until ASPA has responded to the RFI. The Contractor shall plan its work in an efficient manner so as to allow for timely responses to RFIs.

RFIs shall only be submitted by the Contractor on an RFI Form acceptable to ASPA. The Contractor shall clearly and concisely set forth the issue for which clarification or interpretation is sought and why a response from ASPA is needed. In the RFI, the Contractor shall set forth its own interpretation or understanding of the requirements along with reasons why it reached such an understanding and must include proposed solution. RFI’s submitted without proposed solutions will be returned without review.

No measurement is to be made for this section. All costs shall be considered incidental to the construction and shall be included in the costs of other items of the work involved in the project.

### **Section 22: AS-BUILT AND ASSET DATABASE**

This section shall cover the complete costs of providing all labor, equipment and materials required to complete the work specified in SECTION 01 70 00 - CLOSEOUT SUBMITTALS.

No measurement is to be made for this section. All costs for shall be considered incidental to the construction and shall be included in the costs of other items of the work involved in the project.