

American River Flood Control District Ground Penetrating Radar – Subtronics Contracts

Staff Report

Discussion:

The District has been working with the State of California Department of Water Resources through their Deferred Maintenance Project (DMP) grants to inspect eligible levee pipes within the District. Part of the effort entails making a determination on the status of numerous 'not found' pipes within the State's database. Initially there were approximately 100 not found pipes within the District, but consultants with Mead & Hunt Engineers reviewed as-built levee plans to determine that a portion of the pipes were removed by past levee construction or were not found during levee excavations. The remaining locations of 'not found' pipes are eligible for grant funding to be examined through Ground Penetrating Radar (GPR) to see if some feature or evidence exists underground that could be the suspected levee pipe.

The materials for this agenda item include a contract to perform GPR on 51 locations of 'not found' pipes within the District. The costs for this work are to be reimbursed by the State under the DMP grant program.

This item also includes two additional GPR contracts to investigate other areas of concern for the District. They include:

1. The seepage site witnessed at the confluence of the Arcade Creek North Levee and the NEMDC East Levee in 2017 and 2019
2. The sinkhole that developed on the American River South Levee at H Street in 2019

The GPR information for both of these sites will yield valuable information for engineers studying the sites at the request of the District.

Recommendation:

The General Manager recommends that the Board of Trustees approve the contracts for Ground Penetrating Radar with Subtronics.

Subtronic Corporation

Estimate

Ph: (925) 228-8771
5031 Blum Rd, #2

Estimate # **30659**

Date of Estimate 9/27/2019

BILL TO:

American River Flood Control District
185 Commerce Circle
Sacramento, CA 95815

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| ESTIMATE TO: | P.O. #: | |
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| SURVEYOR | JOB DATE | DAY | TIME | TERMS |
| | | | | Credit Card |

| DESCRIPTION | QTY | COST | TOTAL |
|---|------------|-------------|--------------|
| <p>Estimates up to \$1,000 require 50% deposit, \$1,000 and over require 25% deposit. Deposit is due when the Estimate is accepted, work will be scheduled when deposit is received. We accept Credit Cards and Cash, check payment are accepted but will require 3 days for processing.</p> <p>PROJECT LOCATION: Multiple locations Sacramento, CA</p> <p>AREA OF SURVEY: The area of survey is defined by information received September 12, 2019 regarding the location of levee penetrations at 51 locations, see attached drawings. The typical length of the survey along the levee will be 100'.</p> <p>SCOPE OF SURVEY: We will endeavor to locate levee penetrations in the areas indicated, but for technical reasons cannot guarantee to do so, some may simply not exist, others may be made of a material that is not detectable using geophysical instruments and the existing ground conditions.</p> <p>METHODOLOGY: Location of pipes will be by electromagnetic field induction and or magnetometry. Ground Penetrating Radar will also be used.</p> | | 0.00 | 0.00 |

Signature

Date

TOTAL

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| <p>INCLUSIONS: Metallic and some non metallic levee penetrations detectable with GPR.</p> <p>DEPTHS of pipes will be provided where possible. Instrument readings are deemed within 10% accuracy. Critical depths may require potholing (not included in this proposal, but available on request).</p> <p>ASSUMPTIONS:</p> <ol style="list-style-type: none"> 1. We assume access will be granted to all places requiring admission for the purpose of tracking and identifying the penetrations. 2. We assume that any existing utility drawings will be made available. 3. We assume Underground Service Alert will be notified prior to any future excavation. 4. We assume penetration locations (lat & long) will be provided prior to departure. 5. Unless noted otherwise we assume this is a prevailing wage project and we are not obligated to a project labor agreement. | | | |

Signature

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| <p>PRESENTATION: The penetrations will be marked on the ground with spray paint and their lat, long recorded. A report (table) listing the results and locations will be issued approximately 2 days after the completion of site work.</p> <p>COMPENSATION: For work performed as described above including equipment, personnel and travel costs for the sum of: Geophysical Survey, 2 man crew, per day</p> <p>PREVAILING WAGE: State & Federal prevailing wage rates apply to all public works contracts as set forth in Labor Code Sections 1720, 1720.2, 1720.3, 1720.4, 771. and DAVIS-BACON ACT Title 40 U.S.C. If the work is performed over a number of years an increase in the quoted fees of 3% per annum will be applied.</p> <p>This estimate is good for 60 days.</p> | 15 | 2,520.00 | 37,800.00 |

Signature

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| DESCRIPTION | QTY | COST | TOTAL |
|--|------------|-------------|--------------|
| Insurance Coverage: General Liability: \$2,000,000 per occurrence \$ 4,000,000 aggregate Excess/Umbrella Liability: \$5,000,000 Worker's Comp: \$1,000,000 Employer's Liability Professional Liability: \$1,000,000 per claim \$2,000,000 annl aggr. Automobile:\$1,000,000 Combined Single Limit | | | |

Signature _____ **Date** _____

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| TOTAL | \$37,800.00 |
|--------------|--------------------|

*This quotation is subject to our Specification and Standard Conditions of Contract.
CA License # 940232*

Subtronic Corporation

Estimate

Ph: (925) 228-8771
5031 Blum Rd, #2

Estimate # **30676**

Date of Estimate 9/27/2019

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185 Commerce Circle
Sacramento, CA 95815

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| <p>Estimates up to \$1,000 require 50% deposit, \$1,000 and over require 25% deposit. Deposit is due when the Estimate is accepted, work will be scheduled when deposit is received. We accept Credit Cards and Cash, check payment are accepted but will require 3 days for processing.</p> <p>PROJECT LOCATION: Location # 2 Arcade Creek site Sacramento, CA</p> <p>AREA OF SURVEY: The area of survey is defined by information received September 12, 2019 regarding the location of underground utilities at above address see attached drawings</p> <p>SCOPE OF SURVEY: We will endeavor to locate underground utilities in the areas indicated, but for technical reasons cannot guarantee to do so, some short lengths of abandoned utilities may not be located.</p> <p>METHODOLOGY: Location of utilities will be by electromagnetic field induction. Ground Penetrating Radar will also be used.</p> | | 0.00 | 0.00 |

Signature

Date

TOTAL

Subtronic Corporation

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Ph: (925) 228-8771
5031 Blum Rd, #2

Estimate # **30676**

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| DESCRIPTION | QTY | COST | TOTAL |
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| <p>INCLUSIONS: Metallic utilities i.e. electric, telephone, gas and water. Non metallic utilities with tracer wire visible. Sewer and drain lines with minimum 4" cleanout or manhole access will be located by inserting a transmitter.</p> <p>DEPTHS of utilities will be provided where possible. Instrument readings are deemed within 10% accuracy. Critical depths may require potholing (not included in this proposal, but available on request).</p> <p>ASSUMPTIONS:</p> <ol style="list-style-type: none"> 1. We assume access will be granted to all places requiring admission for the purpose of tracking and identifying the utilities. 2. We assume that any existing utility drawings will be made available. 3. We assume Underground Service Alert will be notified prior to excavation. 4. We assume boring locations or areas of excavation will be marked on site prior to our arrival. 5. Unless noted otherwise we assume this is not a prevailing wage project and we are not obligated to a project labor agreement. 6. UPRR Permit and Insurance costs will be acquired and paid for by Client. | | | |

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|---|------------|-------------|--------------|
| PRESENTATION: The utilities will be marked on the ground with spray paint. | | | |
| COMPENSATION: For work performed as described above including equipment, personnel and travel costs for the sum of: | | | |
| Underground utility locator, 1st hour on site | 1 | 570.00 | 570.00 |
| Underground utility locator, subsequent hours: | 5 | 190.00 | 950.00 |
| This estimate is good for 60 days. | | | |
| PREVAILING WAGE: State & Federal prevailing wage rates apply to all public works contracts as set forth in Labor Code Sections 1720, 1720.2, 1720.3, 1720.4, 771. and DAVIS-BACON ACT Title 40 U.S.C. If the work is performed over a number of years an increase in the quoted fees of 3% per annum will be applied. | | | 0.00 |

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| DESCRIPTION | QTY | COST | TOTAL |
|--|------------|-------------|--------------|
| Insurance Coverage: General Liability: \$2,000,000 per occurrence \$ 4,000,000 aggregate Excess/Umbrella Liability: \$5,000,000 Worker's Comp: \$1,000,000 Employer's Liability Professional Liability: \$1,000,000 per claim \$2,000,000 annl aggr. Automobile:\$1,000,000 Combined Single Limit | | | |

Signature _____ **Date** _____

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|--------------|-------------------|
| TOTAL | \$1,520.00 |
|--------------|-------------------|

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| <p>INCLUSIONS: Metallic utilities i.e. electric, telephone, gas and water. Non metallic utilities with tracer wire visible. Sewer and drain lines with minimum 4" cleanout or manhole access will be located by inserting a transmitter.</p> <p>DEPTHS of utilities will be provided where possible. Instrument readings are deemed within 10% accuracy. Critical depths may require potholing (not included in this proposal, but available on request).</p> <p>ASSUMPTIONS:</p> <ol style="list-style-type: none"> 1. We assume access will be granted to all places requiring admission for the purpose of tracking and identifying the utilities. 2. We assume that any existing utility drawings will be made available. 3. We assume Underground Service Alert will be notified prior to excavation. 4. We assume boring locations or areas of excavation will be marked on site prior to our arrival. 5. Unless noted otherwise we assume this is not a prevailing wage project and we are not obligated to a project labor agreement. | | | |

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| This estimate is good for 60 days. | | | |

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| DESCRIPTION | QTY | COST | TOTAL |
|--|------------|-------------|--------------|
| Insurance Coverage: General Liability: \$2,000,000 per occurrence \$ 4,000,000 aggregate Excess/Umbrella Liability: \$5,000,000 Worker's Comp: \$1,000,000 Employer's Liability Professional Liability: \$1,000,000 per claim \$2,000,000 annl aggr. Automobile:\$1,000,000 Combined Single Limit | | | |

Signature _____ **Date** _____

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|--------------|-------------------|
| TOTAL | \$1,140.00 |
|--------------|-------------------|

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