



STAFF REPORT

CITY COUNCIL OF THE CITY OF SAUSALITO

AGENDA TITLE

Approve a Professional Services Agreement with Towill, Inc. for Topographic Terrain Analysis Services for Priority Sewer Projects

RECOMMENDED MOTION

Adopt a Resolution of the City Council of the City of Sausalito Approving and Authorizing the City Manager to Execute a Professional Services Agreement with Towill, Inc. for Topographic Terrain Analysis Services for Priority Sewer Projects

SUMMARY:

To ensure continued compliance with the EPA Order while framing a fiscally-responsible program for addressing urgent environmental and public health issues, a hierarchy of sewer rehabilitation projects has been identified by Staff and consultants. The product of this analysis was presented to Council by West Yost at the regular Council meeting of January 27, 2009. Because of the multi-year nature of the delivery of that hierarchy, Staff has requested assistance from Towill, Inc. to comparatively evaluate mapping it performed for the City of Sausalito in 1968 against mapping it quality-assured for Marin Map in 2004. The product of this comparison will be a map and related report regarding differential ground-surface elevation change (expected to be subsidence in the Marinship) to be used in confirming the design grades and lifecycles for priority sanitary sewer work as well as other infrastructure improvements contemplated in the next few years.

The lump sum proposed is \$12,800 for the recommended work, for which adequate funding is available in the approved budget as summarized below:

Account	Department	Amt Requested	Amt Unencumbered as of April 29, 2009 ¹
110-550-3000-320	Sewer Fund Professional Services	\$12,800	\$23,041

BACKGROUND

On the basis of its proposal, its good service to the City and Marin Map since 1968, and the fact that its records and experience with similar topographic analyses in Sausalito cannot feasibly be provided by another firm, Towill has demonstrated a level of experience, competence, staffing and other professional qualifications appropriate for the necessary services and will provide the

¹ Reflects \$62,899 minus \$33,388 in budget for PCI and minus \$6,470 for SMC under separate agenda items.

best value to the City in doing so for the proposed compensation. Further, Towill has agreed to and accepted the terms and conditions of the City's standard professional services agreement which was prepared and approved as to form by the City Attorney.

Because the proposed services fall within the definition of "Professional Services" set forth in section 3.30.020 of the Sausalito Municipal Code (SMC) – which specifically includes land surveyor services² – it is not necessary to comply with either formal or informal bidding procedures with respect to award of the contract. The requirements of SMC Article 4, sections 3.30.500 *et seq.* have been met.

ISSUES

None identified. The proposed professional services will not have an adverse effect on the environment and are being performed to comply with EPA and other legal requirements. Were the sewer rate increase process to delay the availability of construction funds, the subject consulting services recommended would be required anyway.

FISCAL IMPACT

The funding requested is \$12,800. Said funding is available in the adopted Sewer Fund budget, account number 110-550-3000-320, Professional Services. As of April 29, 2009, \$23,041 was available and unencumbered in that account. Council approval is not required under SMC section 3.30.520 but is being sought anyway.

STAFF RECOMMENDATION

Adopt Resolution Approving and Authorizing the City Manager to Execute a Professional Services Agreement with Towill, Inc. for Topographic Terrain Analysis Services for Priority Sewer Projects

ATTACHMENTS

1. Resolution of the City Council of the City of Sausalito Approving and Authorizing the City Manager to Execute a Professional Services Agreement with Towill, Inc. for Topographic Terrain Analysis Services for Priority Sewer Projects

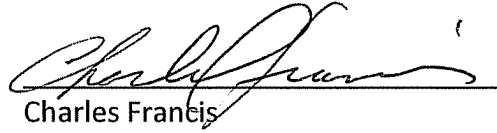
² "Professional or special services" means any work performed by an attorney, doctor, architect, engineer, land surveyor, construction manager, appraiser, expert, accounting firm, planner, consultant or those services such as computer services and other services which require special performance criteria, specific experience, training, personal judgment, quality of work or factors other than simply obtaining the service at the lowest cost to the City.

PREPARED BY:



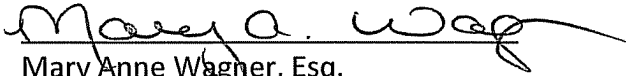
Jonathon Goldman
Director of Public Works

REVIEWED BY:



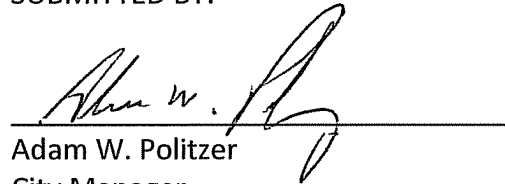
Charles Francis
Finance Director

REVIEWED BY:



Mary Anne Wagner, Esq.
City Attorney

SUBMITTED BY:



Adam W. Politzer
City Manager

[PSA Towill Sewer]

ATTACHMENTS 1

RESOLUTION No. _____

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SAUSALITO APPROVING
AND AUTHORIZING THE CITY MANAGER TO EXECUTE A PROFESSIONAL
SERVICES AGREEMENT WITH TOWILL, INC. FOR TOPOGRAPHIC TERRAIN
ANALYSIS SERVICES FOR PRIORITY SEWER PROJECTS**

WHEREAS, with Resolution ___ of March 10, 2009 the City Council approved mid-year budget modifications to the 2008-2009 Annual Budget which includes funding for EPA Order Compliance (Fund 110-550-3000-320) and General Sanitary Sewer Rehab Project 04 (Fund 110-550-4067-450) an unencumbered balance of \$161,406 in those funds remains as of April 29, 2009; and

WHEREAS, the Director of Public Works has evaluated alternatives and contacted Towill, Inc. regarding the City's need for specialized land surveying assistance with the Priority Sewer Projects; and

WHEREAS, the Director of Public Works requested and Towill, Inc. submitted a proposal to perform the necessary services; and

WHEREAS, in conformance with Article 4, Section 3.30.500 *et seq.* of the Sausalito Municipal Code after evaluating Towill's proposal the Director of Public Works has concluded that Towill has the level of experience, competence, staffing and other professional qualifications necessary for more than a satisfactory performance of the services required and that award of the work to Towill will provide the best value to the City when compared with the alternatives identified (self-performance, and development of a detailed request for proposals to multiple candidates); and

WHEREAS, the proposed professional services will not have any adverse environmental impact; and

WHEREAS, the proposal received includes a detailed scope of services, schedule and budget, as well as acceptable terms and conditions for performance of said services.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Sausalito:

1. Approves a Professional Services Agreement with Towill, Inc. for the basic services described in the attached Agreement on a lump sum of \$12,800 which shall not be exceeded without express approval.
2. Authorizes the City Manager to execute the attached Professional Services Agreement on behalf of the City.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Sausalito on the 5th day of May, 2009 by the following vote:

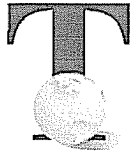
AYES: Councilmembers:
NOES: Councilmembers:
ABSTAIN: Councilmembers:
ABSENT: Councilmembers:

MAYOR OF THE CITY OF SAUSALITO

ATTEST:

DEPUTY CITY CLERK

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TOWILL | Surveying, Mapping
and GIS Services

April 23, 2009

Mr. Jonathon Goldman
Director of Public Works
City of Sausalito
420 Litho Street
Sausalito, CA 94695

Re: Ground Subsidence Analysis Using Existing Data Sources
Towill, Inc. File No.: 13018-901-011

Dear Mr. Goldman:

Towill, Inc. submits the following proposal to provide terrain analysis services for the coastal areas of Sausalito, California from Gate 5 Road to the Ferry Terminal.

SCOPE OF SERVICES AND DELIVERABLES

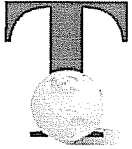
The goal of this project is to identify areas of subsidence and determine the nominal magnitude of subsidence of the waterfront terrain between Gate 5 Road and the Ferry Terminal. The project will analyze the terrain between elevations 0.0 and 20.0 using existing map sources dated 1968 (Towill) and 2004 (MarinMap). Both data sets are topographic maps at 1"=100' with 2' contours. The 1968 maps are analog (manually drafted) and the 2004 maps are digital. The accuracy standard for the source maps requires the contour lines to be within one foot of the actual elevation. This allowable map error is too large to definitively report small elevation changes, however when large areas are considered a statistical elevation bias can be identified. This analysis can only be as accurate as the source data.

PROCESS

- Georeference the 1968 Towill map scans to NAD27 defined by the grid ticks annotated on the maps. The existing map scans can then be utilized inside AutoCAD.
- Trace 1968 contours and spot elevations from the 0.0 contour to the 20.0 contour into AutoCAD.
- Transform the 1968 contours and spot elevations to NAD83 horizontal datum and NAVD88 vertical datum to make them comparable to the MarinMap data.
- Build a Digital Terrain Model (DTM) from the 1968 data.
- Obtain the MarinMap 2004 topographic data for the area
- Build a Digital Terrain Model from the 2004 data.
- Subtract the two surface models to form a model containing elevation differences.
- Display the elevation differences as a raster file with a color assigned to each pixel based on the elevation difference at the location.
- Analyze the results.

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Mr. Jonathon Goldman
City of Sausalito

April 23, 2009
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Since the two data sets each have an allowable error of one foot it is possible the analysis could show a random distribution of differences within the potential ground subsidence range. However a statistically valid solution should be obtainable if both data sets have a random error distribution. The color coded raster file of differences will appear grey if the differences are randomly distributed. It will appear red in areas where one data set is generally higher and green if the other data set is generally higher in an area. We can then produce a contour map of the differences to identify bounding areas and magnitudes.

There are three potential vertical datums that must be considered to ensure the two data sets can be transformed to a common vertical datum. The MarinMap data uses NAVD88 vertical datum. The 1968 Towill maps use either MLLW or NGVD29 vertical datum. The relative differences between these datums can be described in a relative sense by NAVD88 datum being 2.69 feet below NGVD29 and MLLW datum being 2.75 feet below NGVD29. Therefore NAVD88 and MLLW datums are very close and NGVD29 is nearly 3 feet above. A quick comparison of the two data sets indicates the 1968 Towill maps are most likely on MLLW datum since NAVD88 was not in existence in 1968 and the elevation differences between the map sets appears to be near 3 feet. We also noted a hand written note on one map sheet indicating MLLW datum. An optional task would be to field survey a profile along Bridgeway using stable benchmarks to define the datum, then compare this profile to the 1968 Towill maps. This option would provide a more reliable datum definition for the 1968 maps if Bridgeway itself has not settled or rebounded.

TIME SCHEDULE

We anticipate we can complete our services and submit deliverables within 30 calendar days following receipt of a fully executed contract and notice to proceed.

FEEES

Our estimated lump sum fee for this project is \$12,800.00. The optional field profile of Bridgeway would add a \$6,000.00 fee.

Thank you for requesting this proposal from Towill, Inc. We look forward to working with you on this project. If you have any questions or need additional information, please contact me.

Sincerely,

TOWILL, INC.

Warren P. McKean, PE
Project Manager

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